

Product Selection Guide 01

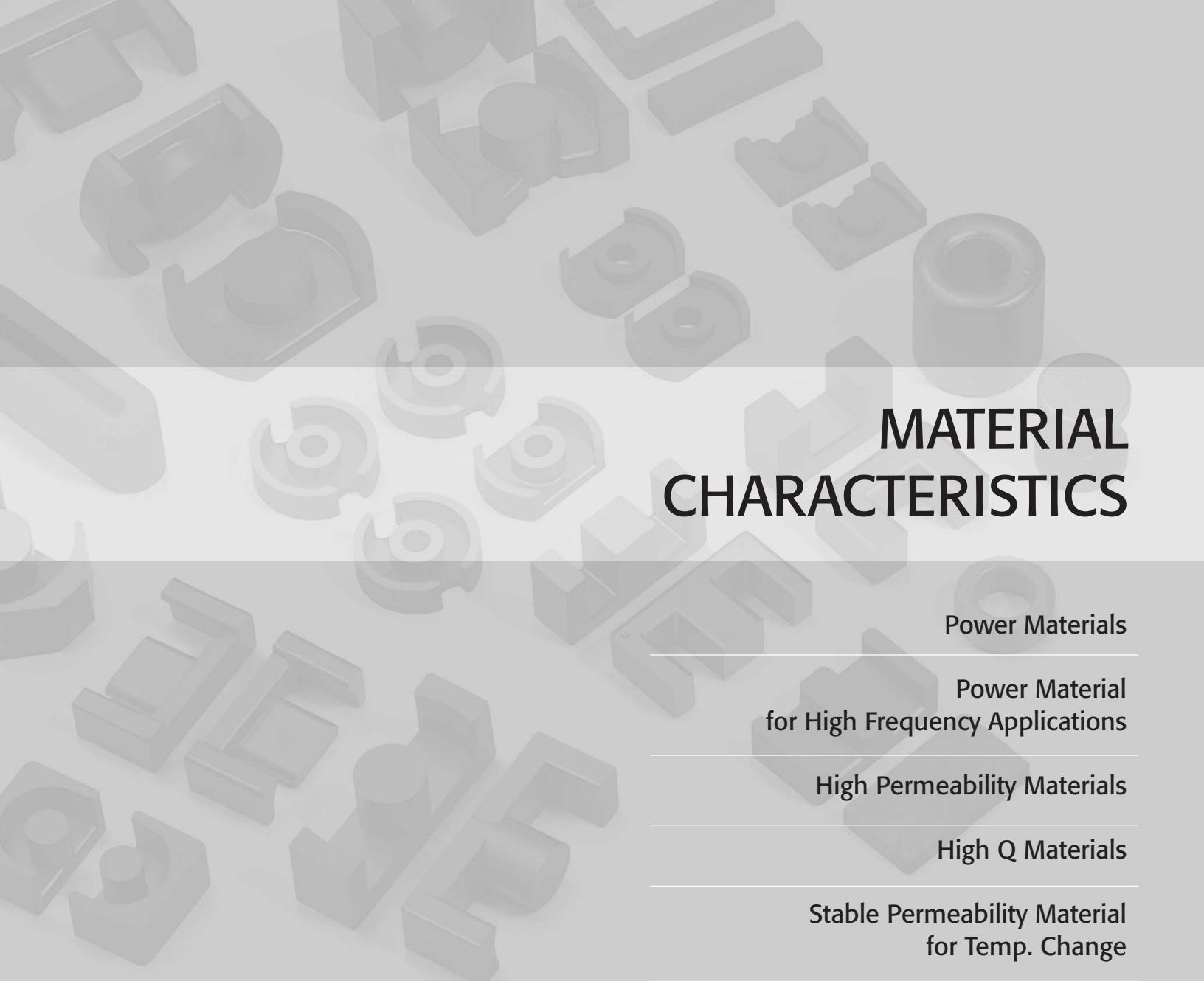
SAMWHA FERRITE CORES

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Description of Terms

C1	mm ⁻¹	Core constant
Le	mm	Effective magnetic path length
Ae	mm ²	Effective cross-sectional area
Ve	mm ³	Effective core volume
Aw	mm ²	Winding area of core
Ac	mm ²	Cross-sectional center leg area
Ve	mm ³	Effective core volume
W	g	Approx. weight of core



MATERIAL CHARACTERISTICS

Power Materials

Power Material
for High Frequency Applications

High Permeability Materials

High Q Materials

Stable Permeability Material
for Temp. Change

Ni-Zn Materials
for EMI-suppressor

Ni-Zn Materials
for Linearity & Choke coil(1)

Ni-Zn Materials
for Linearity & Choke coil(2)

Ni-Zn Materials for Low Loss

Ni-Zn Materials for Ferrite Absorber

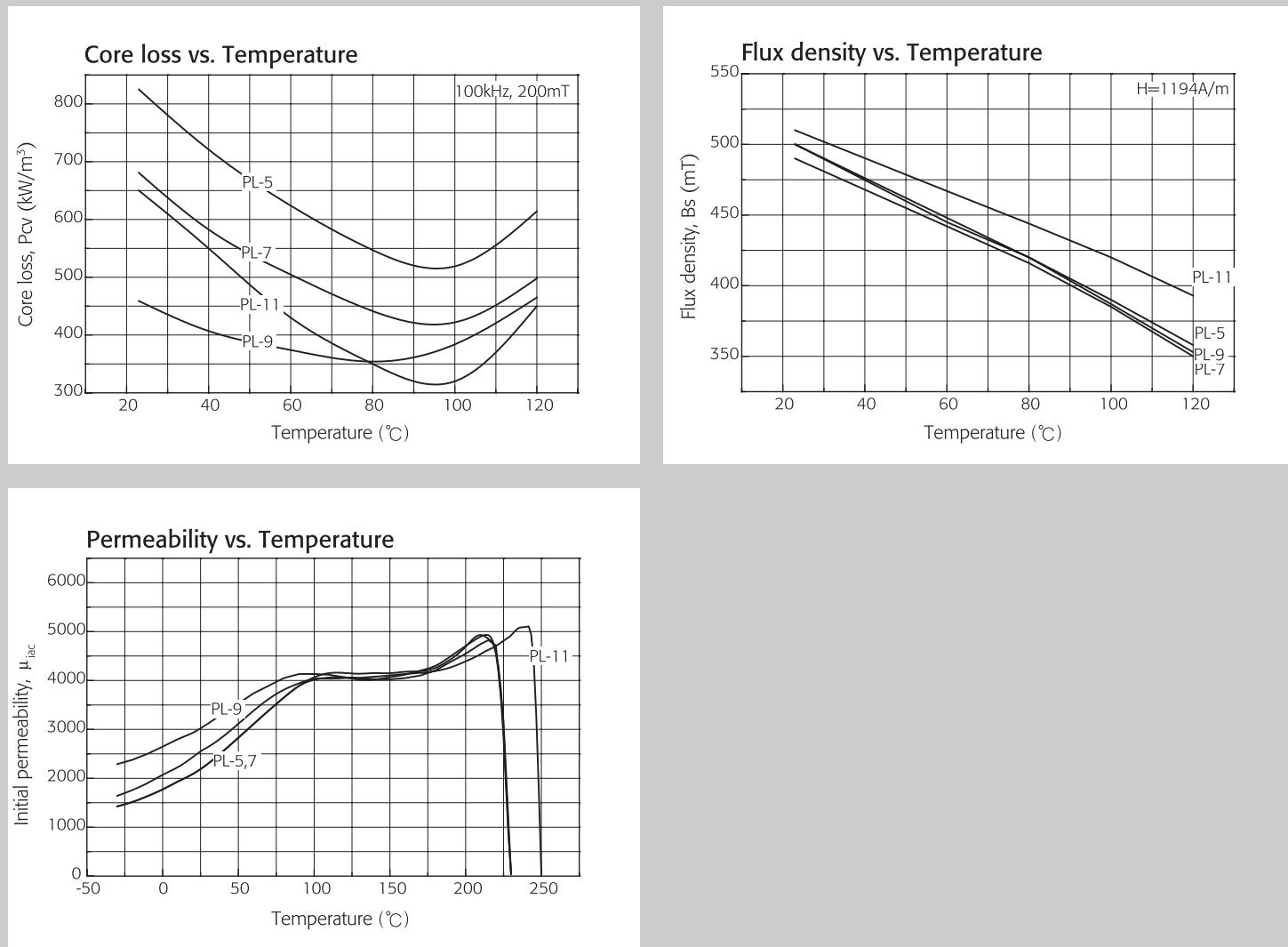
MATERIAL CHARACTERISTICS

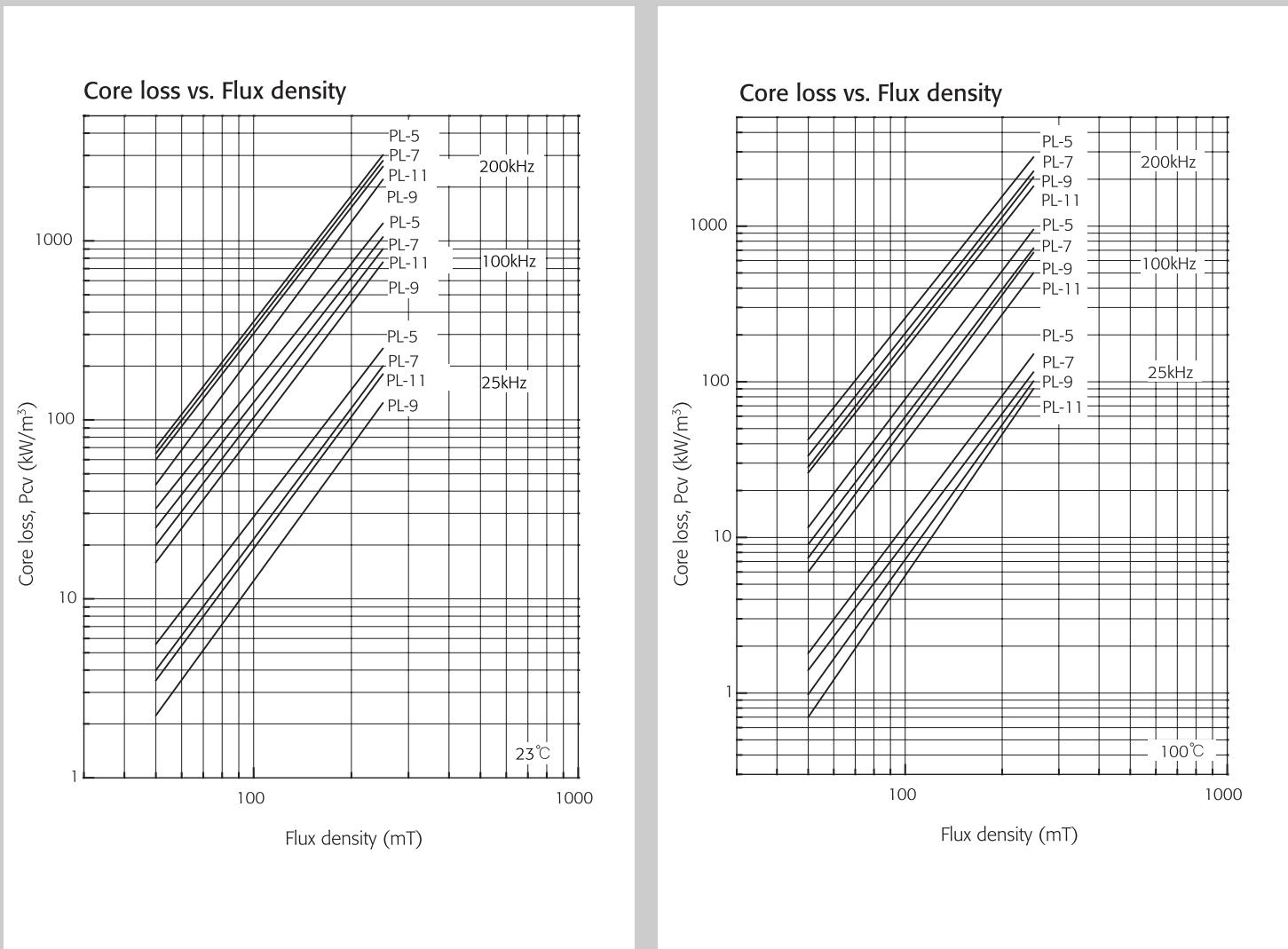
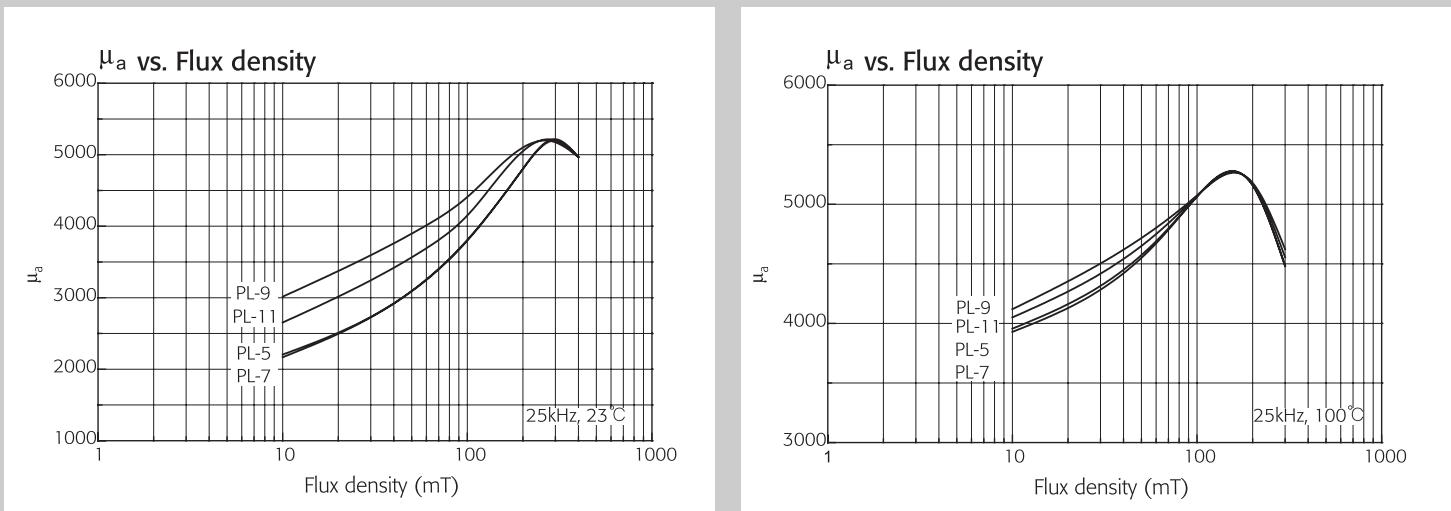
Power Materials

Materials			PL-5	PL-7	PL-9	PL-11	
Initial permeability	μ_{iac}			$2400 \pm 25\%$	$2400 \pm 25\%$	$3000 \pm 25\%$	$2500 \pm 25\%$
Core loss (100kHz, 200mT)	Pcv	kW/m^3	23°C	800	650	450	650
			80°C	550	450	350	350
			100°C	500	410	390	320
Saturation flux density (1194A/m)	Bs	mT	23°C	500	490	500	510
			100°C	390	380	380	420
Remanence	Br	mT	23°C	180	150	150	130
Coercivity	Hc	A/m	23°C	15	12	10	10
Curie temperature	Tc	$^\circ\text{C}$		> 220	> 220	> 220	> 220
Density	d	kg/m^3		4.85×10^3	4.85×10^3	4.85×10^3	4.85×10^3
Resistivity	ρ	$\Omega \cdot \text{m}$		6	5	7	5

Note: 1) Typical values

2) The values were obtained with toroidal cores(30×8-20H) at room temperature unless indicated otherwise.





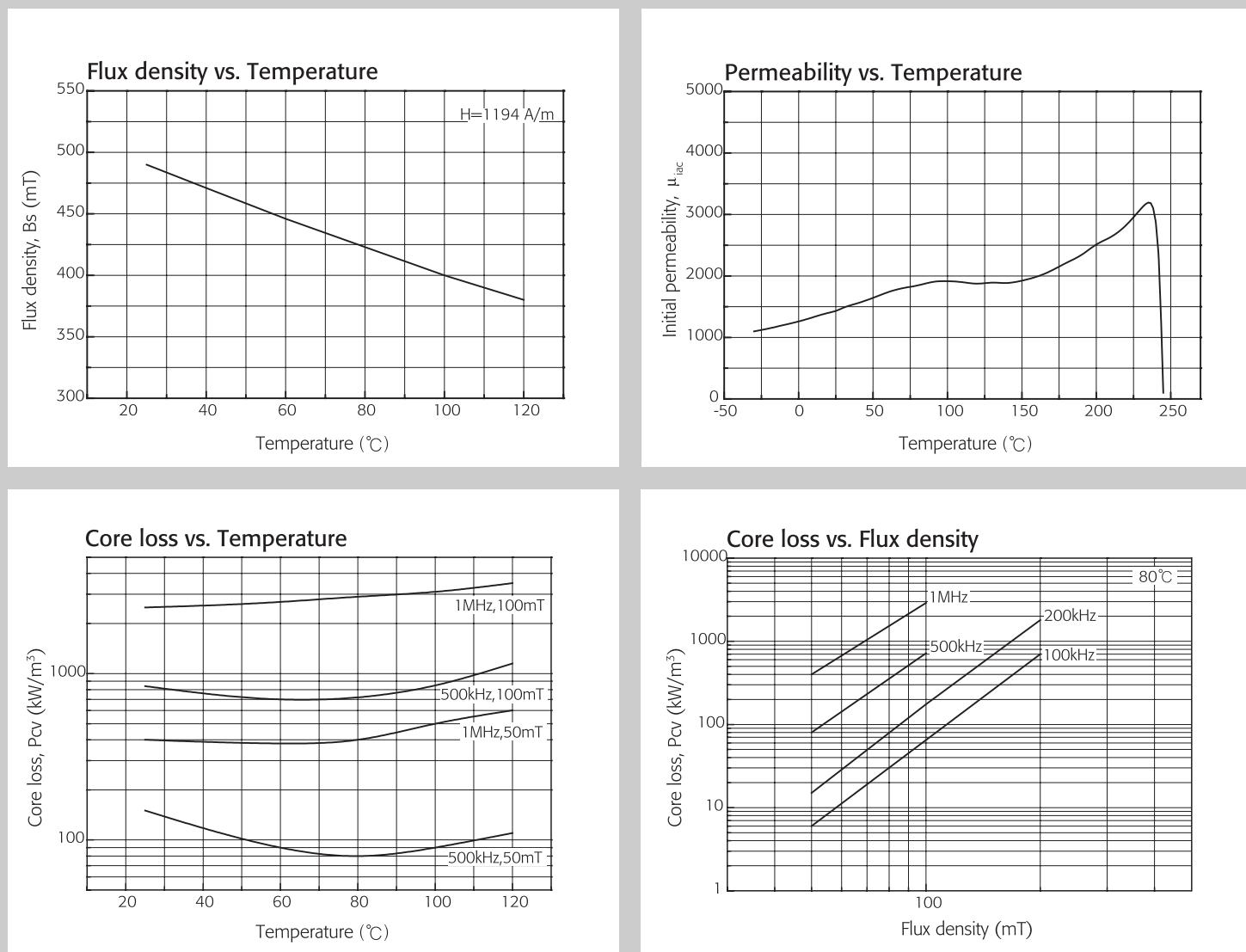
MATERIAL CHARACTERISTICS

Power Material for High Frequency Applications

Material	PL-F1		
Initial permeability	μ_{iac}		$1400 \pm 25\%$
Core loss	P_{cv}	kW/m^3	500kHz, 50mT, 80°C 80
			1MHz, 50mT, 60°C 380
Saturation flux density (1194A/m)	B_s	mT	23°C 490
			100°C 400
Remanence	B_r	mT	100
Coercivity	H_c	A/m	12
Curie temperature	T_c	°C	> 240
Density	d	kg/m^3	4.70×10^3
Resistivity	ρ	$\Omega \cdot m$	7

Note: 1) Typical values

2) The values were obtained with toroidal cores($30 \times 8-20H$) at room temperature unless indicated otherwise.

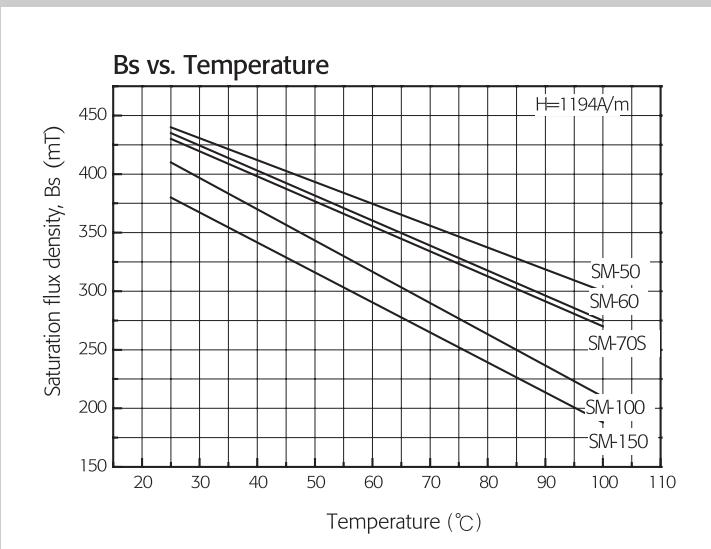
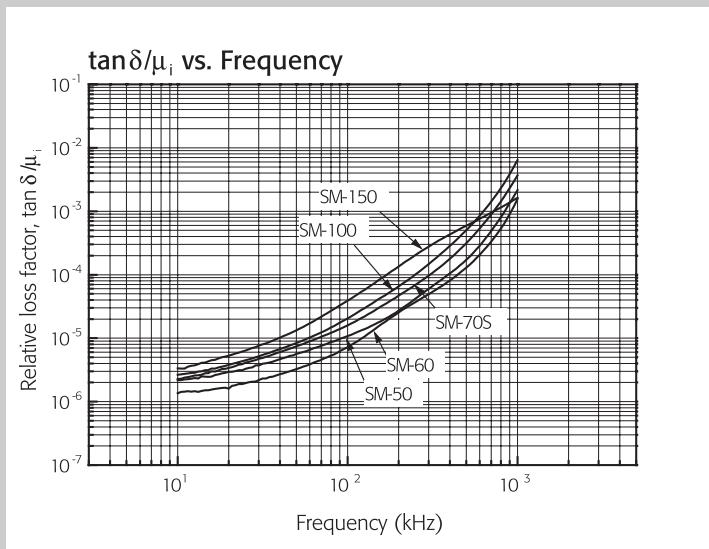
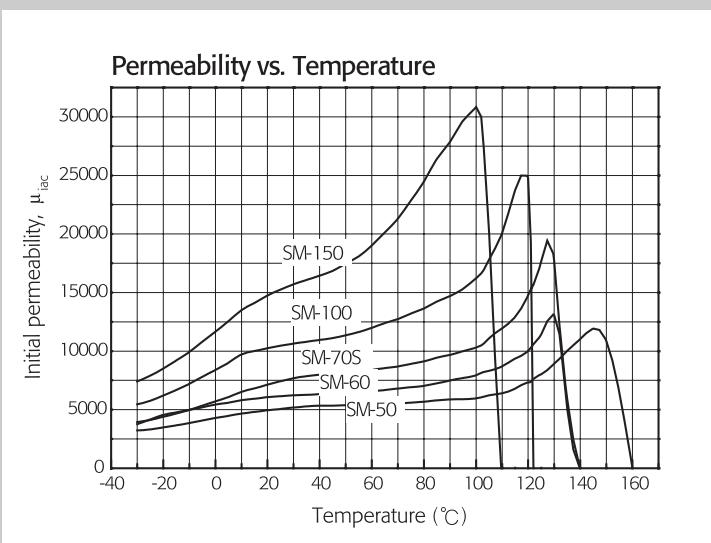
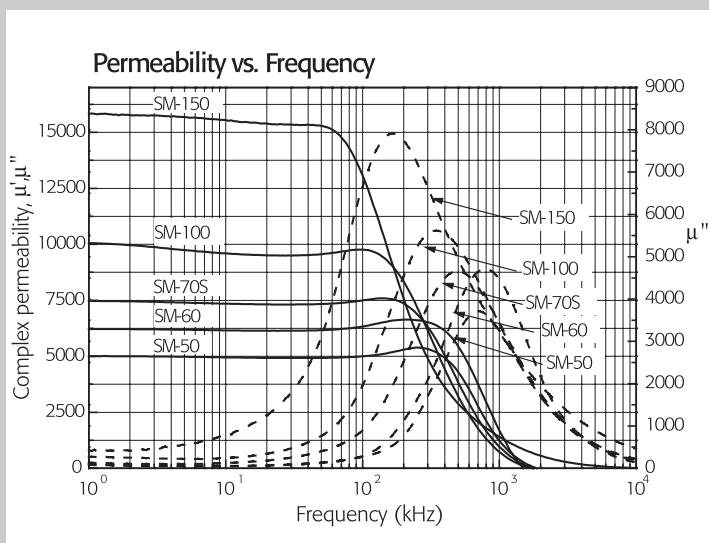


High Permeability Materials

Materials		SM-50	SM-60	SM-70S	SM-100	SM-150	
Initial permeability	μ_{iac}		5000±25%	6000±25%	7500±25%	10000±30%	15000±30%
Relative loss factor	$\tan\delta / \mu_{iac}$	$\times 10^{-6}$	< 10(f:100kHz)	< 10(f:100kHz)	< 20(f:100kHz)	< 3(f:10kHz)	< 5(f:10kHz)
Saturation flux density (1194A/m)	Bs	mT	440	430	430	410	360
Remanence	Br	mT	110	100	100	90	90
Coercivity	Hc	A/m	10	6	6	5	4.5
Relative temp. factor (20~60°C)	$\alpha_{\mu r}$	$\times 10^{-6}/^{\circ}\text{C}$	-0.15~1.0	-0.1~1.0	-0.1~1.0	-0.15~2.0	-0.5~2.0
Curie temperature	Tc	°C	> 150	> 130	> 130	> 120	> 100
Density	d	kg/m ³	4.85×10^3	4.90×10^3	4.90×10^3	4.90×10^3	4.90×10^3
Resistivity	ρ	Ω·m	1	1	0.3	0.2	0.15

Note: 1) Typical values

2) The values were obtained with toroidal cores(30×8-20H) at room temperature unless indicated otherwise.



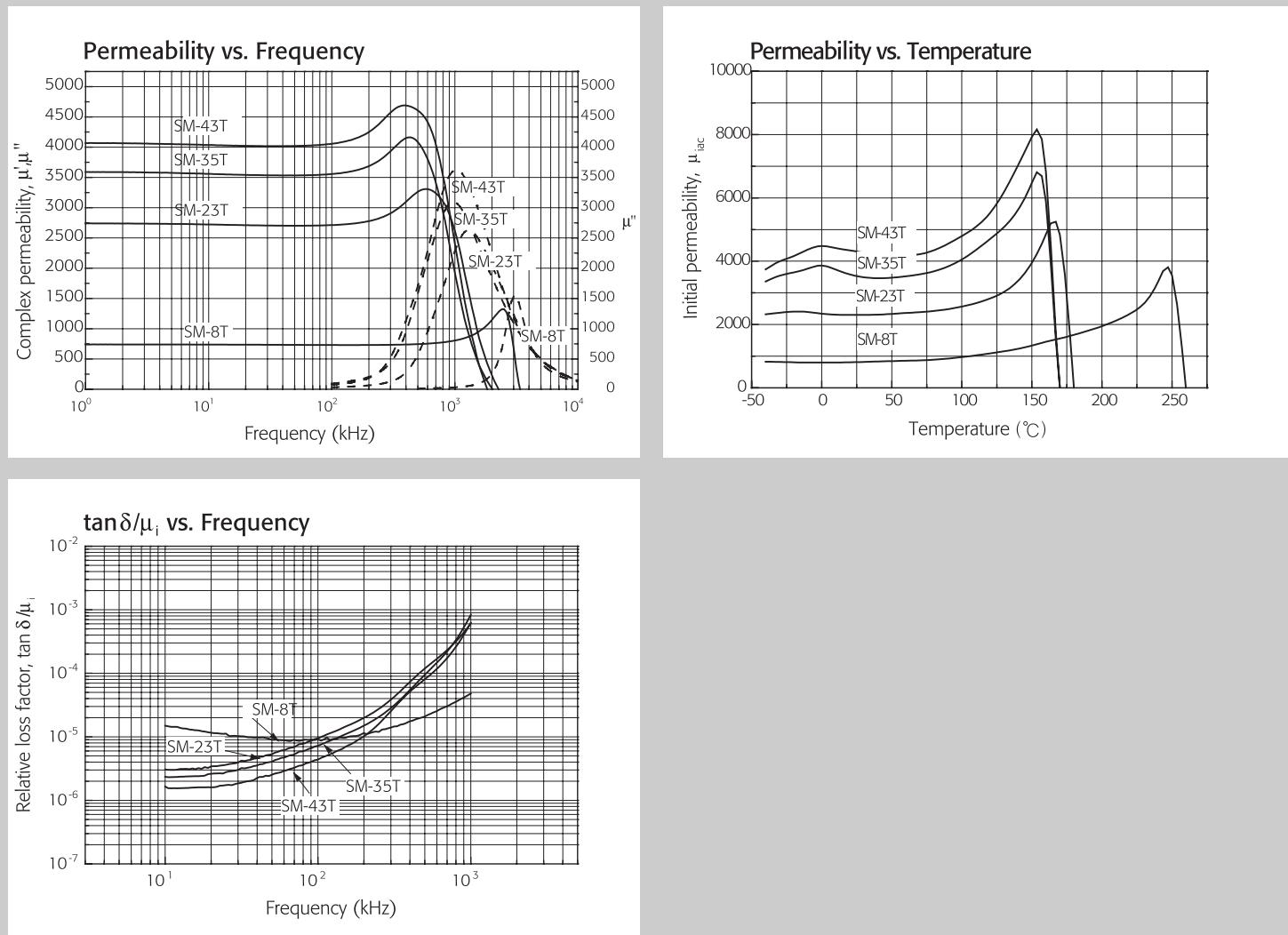
MATERIAL CHARACTERISTICS

High Q Materials

Materials			SM-8T	SM-23T	SM-35T	SM-43T
Initial permeability	μ_{iac}		$800 \pm 20\%$	$2300 \pm 25\%$	$3500 \pm 25\%$	$4300 \pm 25\%$
Relative loss factor	$\tan\delta / \mu_{iac}$	$\times 10^{-6}$	< 25(f:500kHz)	< 3(f:100kHz)	< 5(f:100kHz)	< 5(f:100kHz)
Saturation flux density (1194A/m)	Bs	mT	480	460	450	450
Remanence	Br	mT	270	100	100	100
Coercivity	Hc	A/m	40	10	10	10
			-30~20°C	-0.5~0.5	-0.5~0.5	-0.5~0.5
Relative temp. factor	α_{ur}	$\times 10^{-6}/^{\circ}\text{C}$	0~20°C	-0.5~0.5	0~1.0	0~1.0
			20~70°C	1.0~2.0	0~1.0	0~1.0
Curie temperature	Tc	°C	> 250	> 170	> 160	> 160
Density	d	kg/m^3	4.70×10^3	4.80×10^3	4.80×10^3	4.80×10^3
Resistivity	ρ	$\Omega \cdot \text{m}$	3	10	5	5

Note: 1) Typical values

2) The values were obtained with toroidal cores(30×8-20H) at room temperature unless indicated otherwise.

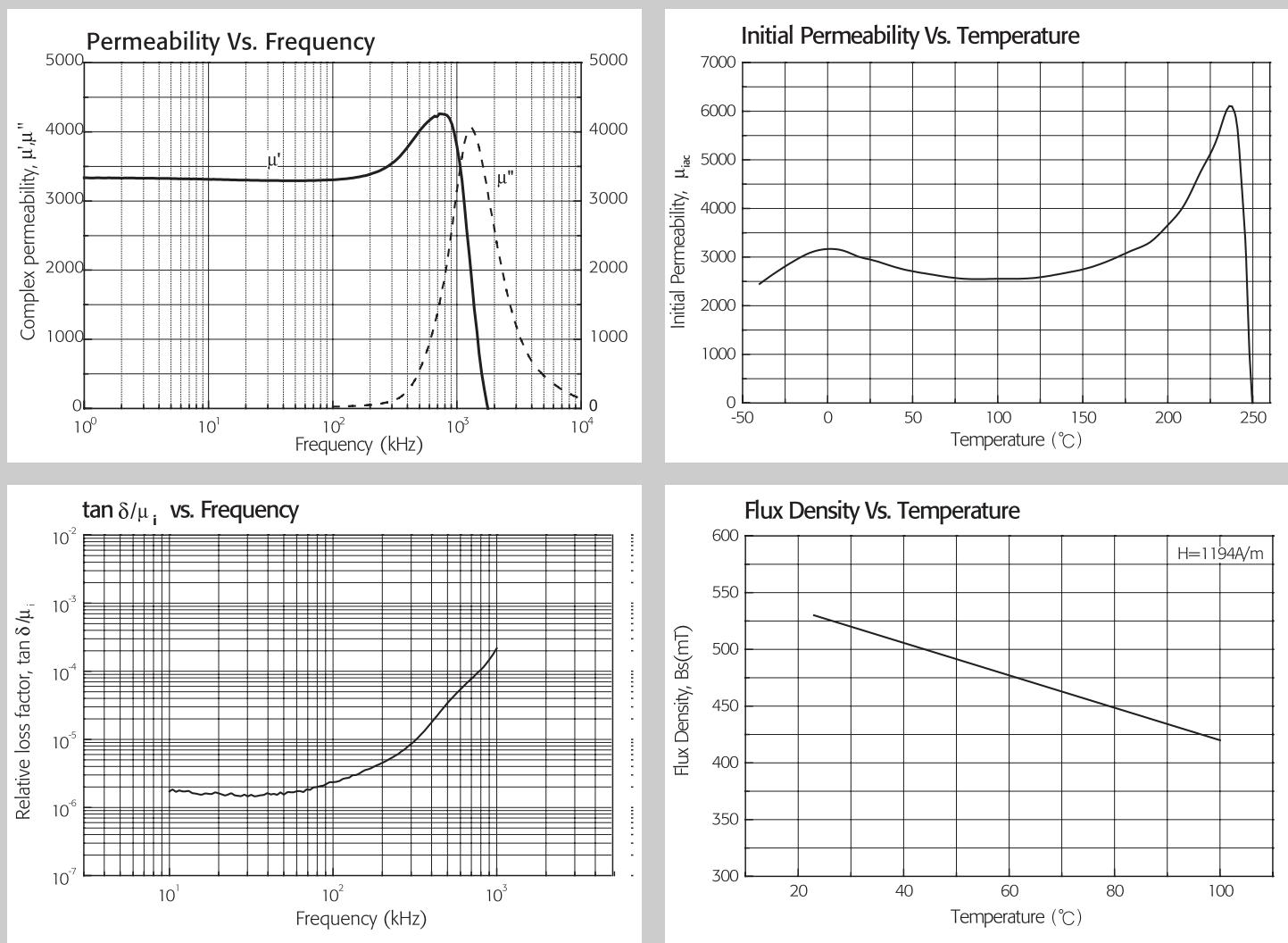


Stable Permeability Material for Temp. Change

Material	ST-30B			
Initial Permeability	μ_{iac}			$3000 \pm 25\%$
Relative loss factor	$\tan\delta / \mu_{iac}$	$\times 10^{-6}$	f:100kHz	< 3.0
Saturation flux density (1194A/m)	Bs	mT	23°C	530
Remanence	Br	mT	100°C	420
Coercivity	Hc	A/m	23°C	12
Core loss(100kHz, 200mT)	Pcv	KW/m ³	40°C	380
			60°C	500
			-20~20°C	650
			20~60°C	-1.0~1.0
Relative temp. factor	$\alpha_{\mu r}$	$\times 10^{-6}/^{\circ}\text{C}$	60~100°C	-1.0~1.0
				-1.0~1.0
Curie temperature	Tc	°C		> 240
Density	d	kg/m ³		4.80×10^3
Resistivity	ρ	Ω·m		5

Note: 1) Typical values

2) The values were obtained with toroidal cores(30×8-20H) at room temperature unless indicated otherwise.



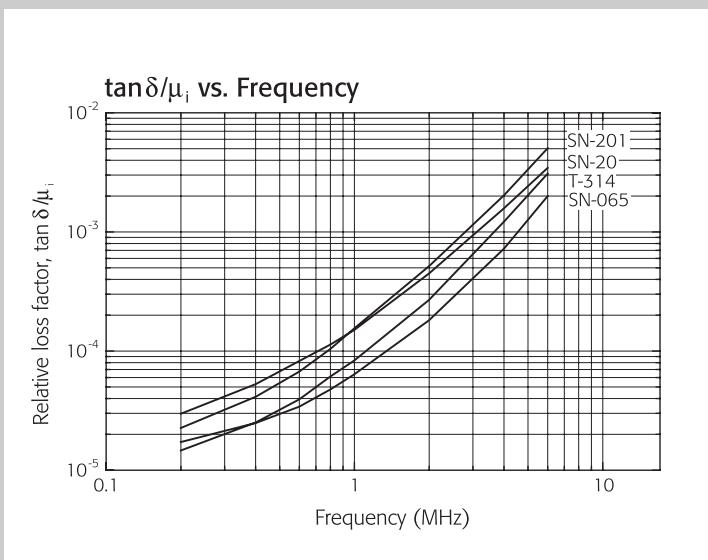
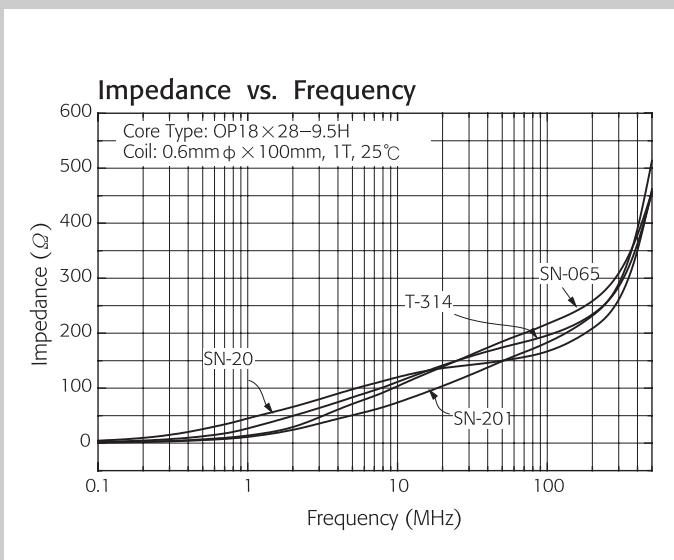
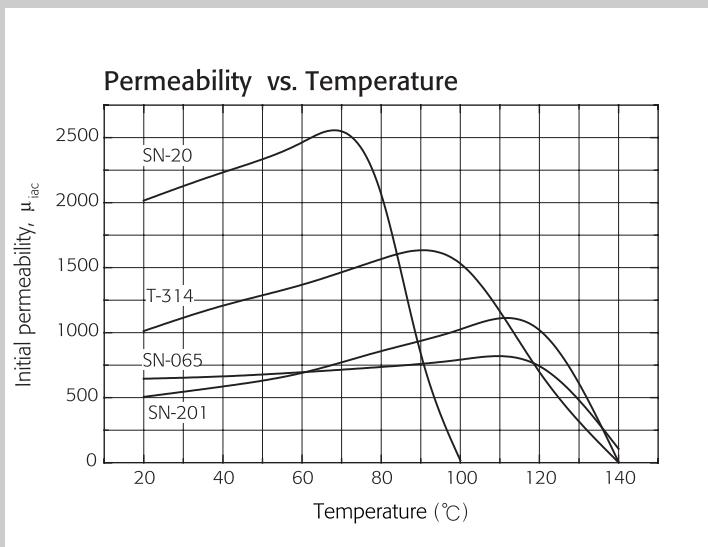
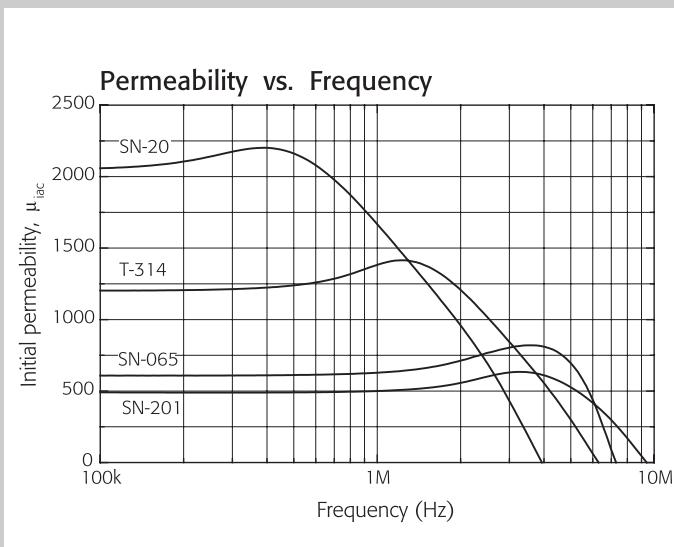
MATERIAL CHARACTERISTICS

Ni-Zn Materials for EMI-suppressor

Materials			SN-20	T-314	SN-065	SN-201
Initial permeability	μ_{iac}		$2000 \pm 20\%$	$1000 \pm 20\%$	$650 \pm 20\%$	$500 \pm 20\%$
Relative loss factor	$\tan\delta / \mu_{iac} \times 10^{-6}$		25 (0.1MHz)	30(0.1MHz)	30(0.7MHz)	30(0.8MHz)
Saturation flux density (1194A/m)	Bs	mT	260	280	300	230
Remanence	Br	mT	100	100	160	140
Coercivity	Hc	A/m	12	24	24	40
Relative temp. factor ($20^{\circ}\text{C} \sim 60^{\circ}\text{C}$)	$\alpha_{\mu r} \times 10^{-6}/^{\circ}\text{C}$		3~5	4~6	5~10	15
Curie Temperature	Tc	°C	>100	>120	>150	>130
Density	δ	kg/m ³	5.0×10^3	5.0×10^3	5.0×10^3	4.8×10^3
Resistivity	ρ	MΩ·m	>1.0	>1.0	>10	>10

Note: 1) Typical values

2) The values were obtained with toroidal cores($30 \times 8-20\text{H}$) at room temperature unless indicated otherwise.

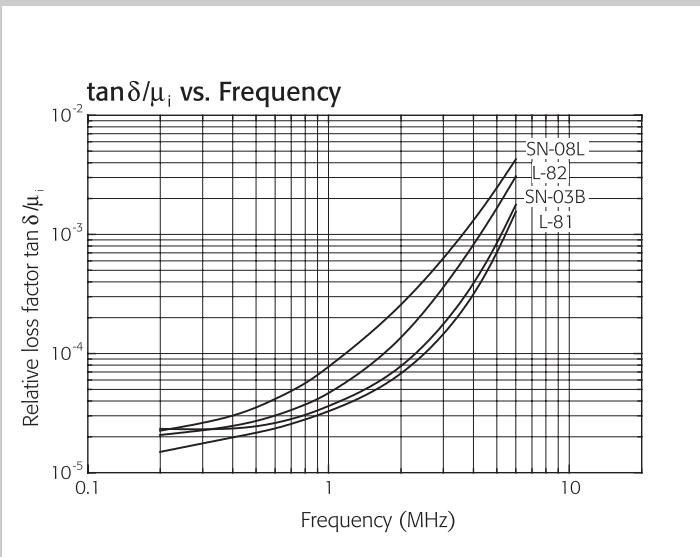
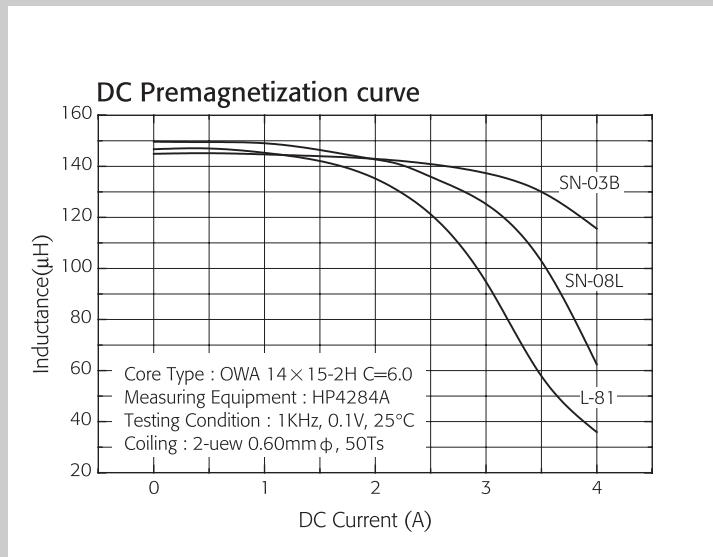
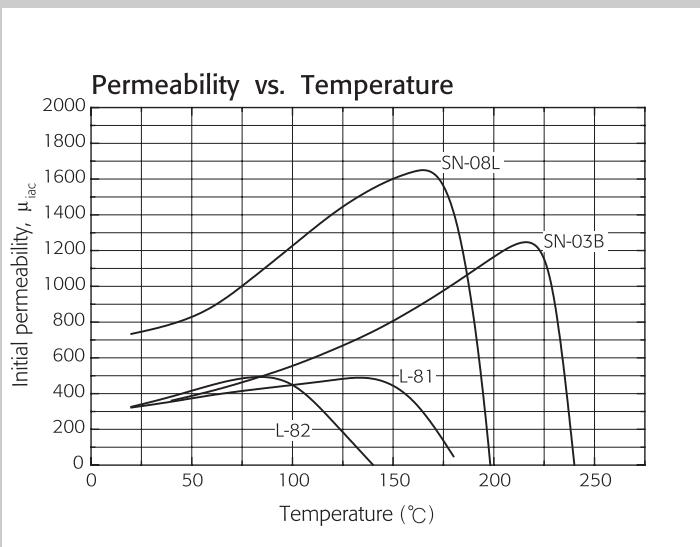
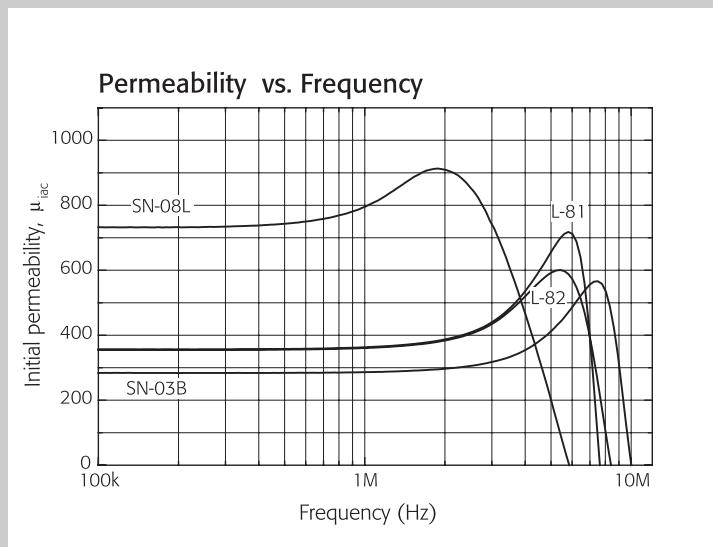


Ni-Zn Materials for Linearity & Choke coil(1)

Materials			SN-08L	SN-03B	L-81	L-82
Initial permeability	μ_{iac}		800±20%	350±20%	350±25%	350±25%
Relative loss factor	$\tan\delta / \mu_{iac}$	$\times 10^{-6}$	20 (0.1MHz)	20 (0.1MHz)	25 (1.0MHz)	30 (0.8MHz)
Saturation flux density (1194A/m)	Bs	mT	380	400	330	220
Remanence	Br	mT	300	300	80	130
Coercivity	Hc	A/m	20	40	48	64
Relative temp. factor (20°C ~ 60°C)	$\alpha_{\mu r}$	$\times 10^{-6}/^{\circ}\text{C}$	5~10	20	5~10	15
Curie Temperature	Tc	°C	>200	>230	>170	>120
Density	δ	kg/m^3	5.0×10^3	5.0×10^3	5.0×10^3	4.8×10^3
Resistivity	ρ	$\text{M}\Omega \cdot \text{m}$	>2.0	>2.0	>2.0	>10

Note: 1) Typical values

2) The values were obtained with toroidal cores(30×8-20H) at room temperature unless indicated otherwise.



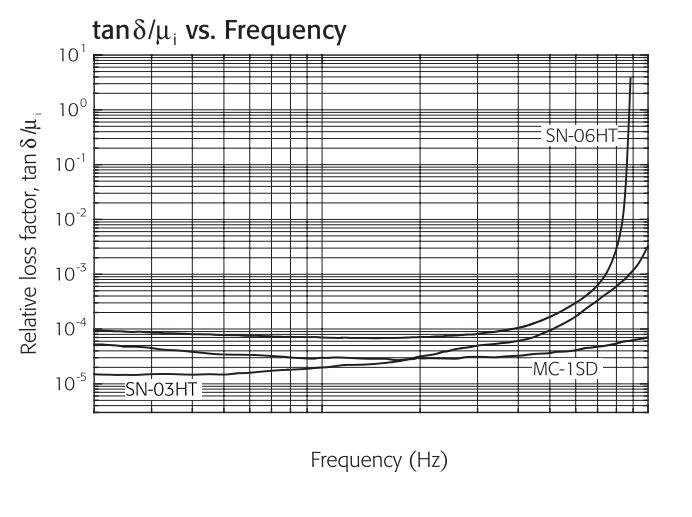
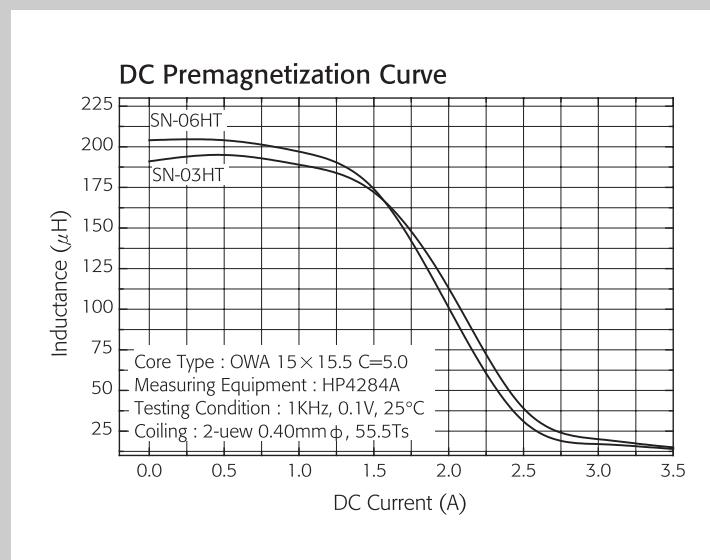
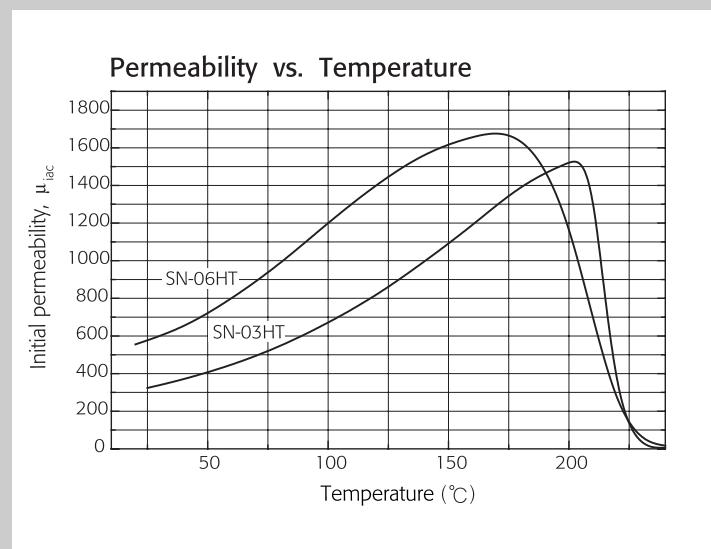
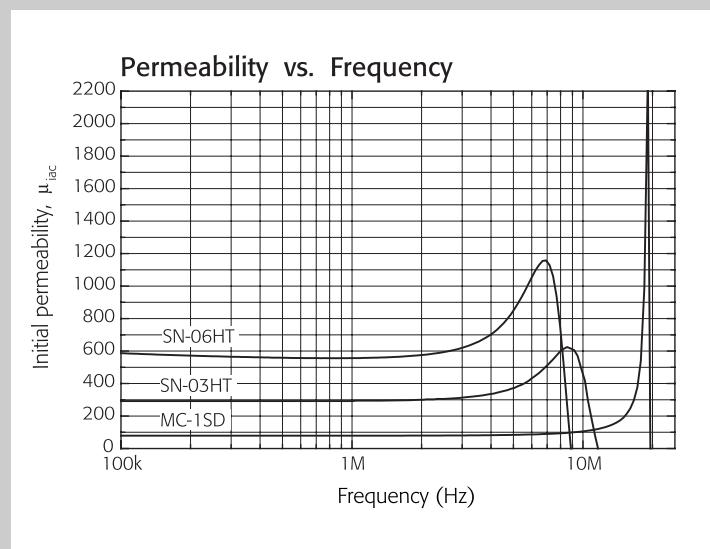
MATERIAL CHARACTERISTICS

Ni-Zn Materials for Linearity & Choke coil(2)

Materials			SN-06HT	SN-03HT	MC-1SD
Initial permeability	μ_{iac}		600±25%	280±20%	70±25%
Relative loss factor	$\tan\delta / \mu_{iac}$	$\times 10^{-6}$	30(0.1MHz)	20(0.9MHz)	30(10MHz)
Saturation flux density(1194A/m)	Bs	mT	360	360	260(2400A/m)
Remanence	Br	mT	220	280	160
Coercivity	Hc	A/m	36	48	150
Relative temp. factor(20°C ~ 60°C)	$\alpha_{\mu r}$	$\times 10^{-6}/^{\circ}\text{C}$	5~10	5~10	70~90
Curie Temperature	Tc	°C	>220	>220	>400
Density	δ	kg/m ³	5.0×10^3	5.0×10^3	4.7×10^3
Resistivity	ρ	MΩ·m	>2.0	>2.0	>200

Note: 1) Typical values

2) The values were obtained with toroidal cores(30×8-20H) at room temperature unless indicated otherwise.

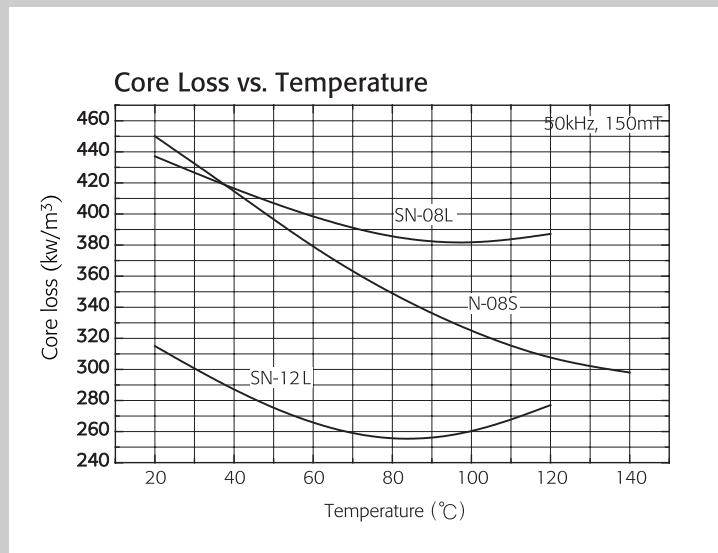
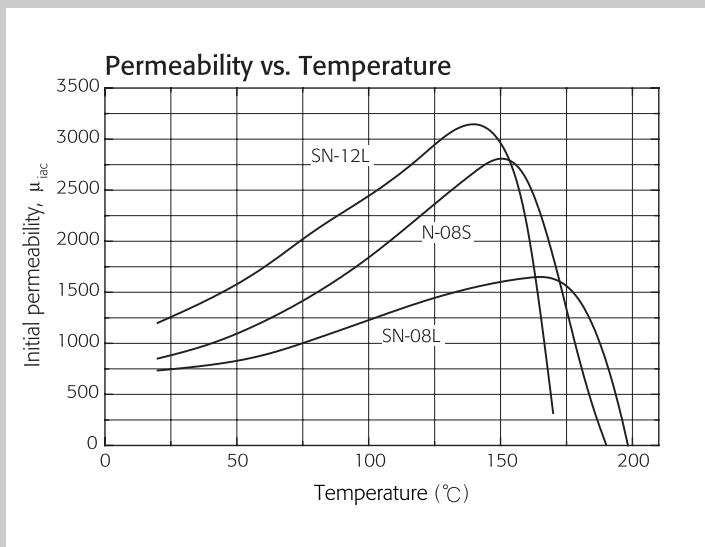
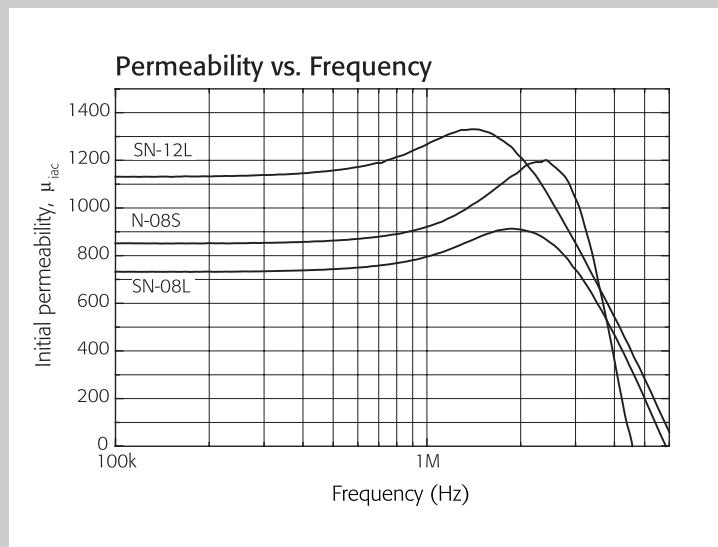


Ni-Zn Materials for Low Loss

Materials			SN-12L	SN-08L	N-08S
Initial permeability	μ_{iac}		$1200 \pm 20\%$	$800 \pm 20\%$	$800 \pm 20\%$
Relative loss factor	$\tan\delta / \mu_{iac}$	$\times 10^{-6}$	10(0.1MHz)	20(0.1MHz)	20(0.1MHz)
Saturation flux density(1194A/m)	Bs	mT	350	380	360
Remanence	Br	mT	230	300	260
Coercivity	Hc	A/m	12	20	22
Relative temp. factor(20°C ~ 60°C)	$\alpha_{\mu r}$	$\times 10^{-6}/^{\circ}\text{C}$	5~10	5~10	12
Curie Temperature	Tc	°C	>140	>200	>190
Density	δ	kg/m^3	5.0×10^3	5.0×10^3	5.0×10^3
Resistivity	ρ	$\text{M}\Omega \cdot \text{m}$	>2.0	>2.0	>10

Note: 1) Typical values

2) The values were obtained with toroidal cores($30 \times 8-20\text{H}$) at room temperature unless indicated otherwise.



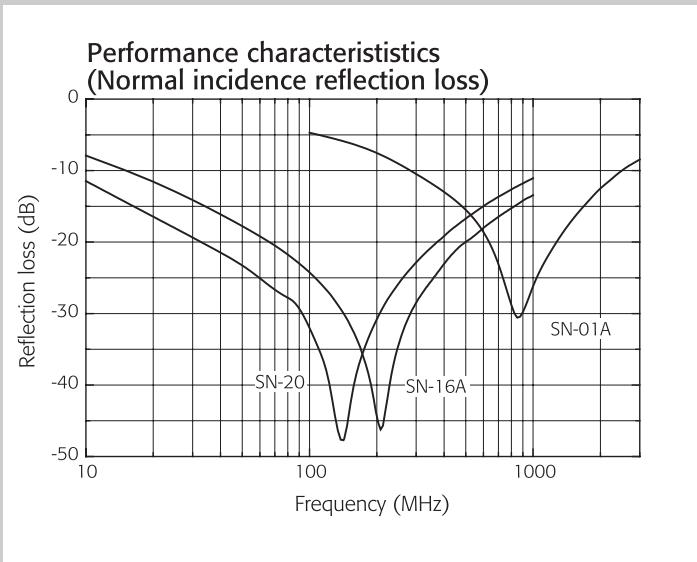
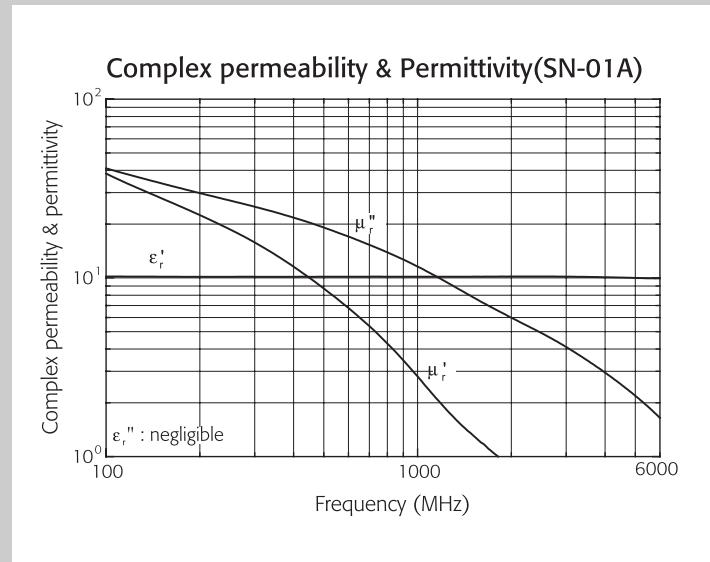
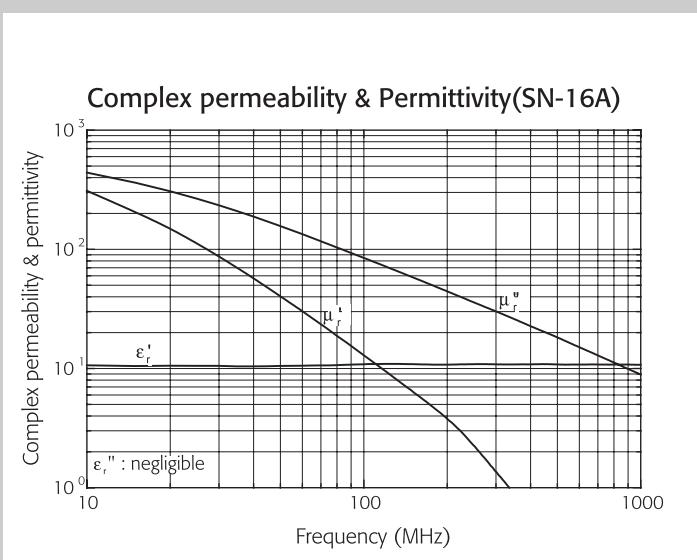
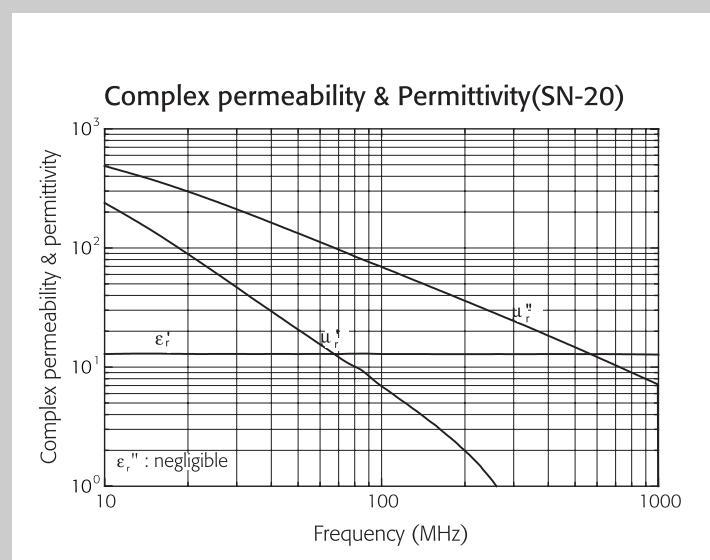
MATERIAL CHARACTERISTICS

Ni-Zn Materials for Ferrite Absorber

Materials			SN-20	SN-16A	SN-01A
Initial permeability	μ_{iac}		$2000 \pm 20\%$	$1600 \pm 20\%$	$100 \pm 20\%$
Relative loss factor	$\tan\delta / \mu_{iac}$	$\times 10^{-6}$	25(0.1MHz)	25(0.1MHz)	52(1.0MHz)
Saturation flux density(1194A/m)	Bs	mT	260	350	380
Remanence	Br	mT	100	120	300
Coercivity	Hc	A/m	12	15	120
Relative temp. factor(20°C ~ 60°C)	$\alpha_{\mu r}$	$\times 10^{-6}/^{\circ}\text{C}$	3~5	5~10	5~10
Curie Temperature	Tc	°C	>100	>120	>300
Density	δ	kg/m^3	5.0×10^3	5.0×10^3	5.0×10^3
Resistivity	ρ	$\text{M}\Omega \cdot \text{m}$	>1.0	>1.0	>5.0

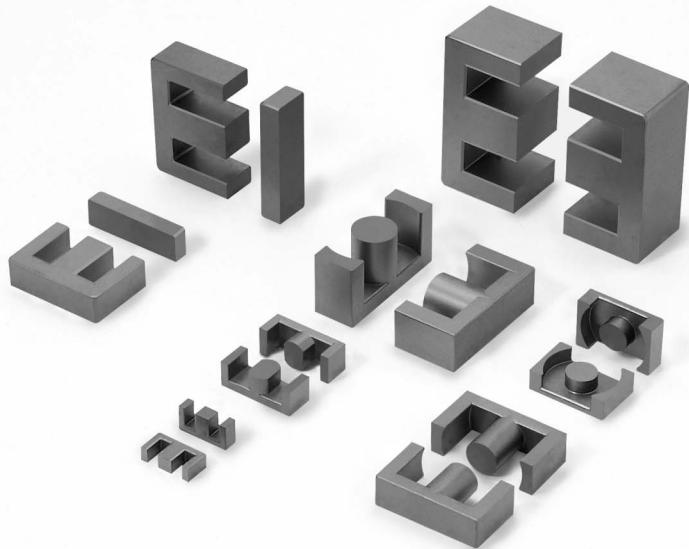
Note: 1) Typical values

2) The values were obtained with toroidal cores(30×8-20H) at room temperature unless indicated otherwise.





Part I



E CORES

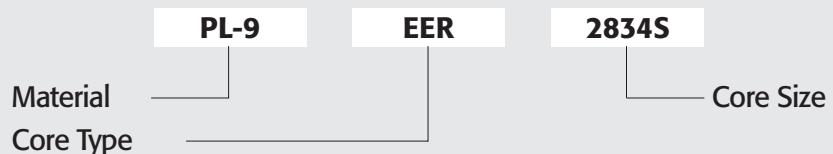
EE05~EE80

EI13~EI70

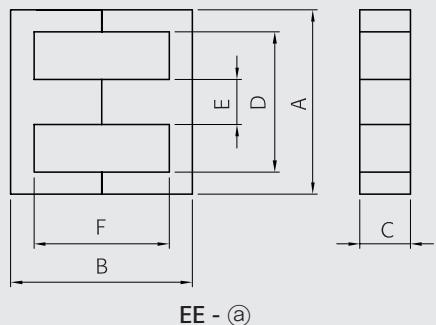
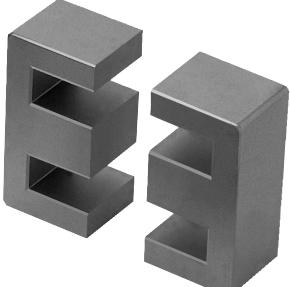
EER09~EER60

EED28~EED42

Ordering Code System



EE CORES



Part No.	EE0505S	EE0606S	EE0808S	EE0908S
Type	EE - @	EE - @	EE - @	EE - @
Dimensions in mm	A	5.25 ± 0.20	6.10 ± 0.20	8.30 ± 0.20
	B	5.30 ± 0.10	5.70 ± 0.10	8.00 ± 0.20
	C	1.95 ± 0.10	1.95 ± 0.10	3.60 ± 0.20
	D	3.85 ref.	3.70 ± 0.10	6.35 ± 0.20
	E	1.35 ± 0.10	1.35 ± 0.10	2.00 ± 0.15
	F	4.00 ref.	3.80 ± 0.10	6.00 ± 0.20
Core Set Parameters	C1(mm⁻¹)	4.780	3.700	2.960
	Le(mm)	12.6	12.2	19.7
	Ae(mm²)	2.6	3.3	6.7
	Ve(mm³)	33	40	131
	Ac(mm²)	2.6	2.6	6.0
	Aw(mm²)	5.0	4.5	14
	W(g/set)	0.2	0.2	0.7
Electrical Characteristics ⁽¹⁾⁽²⁾	PL-5	285	405	590
	PL-7	285	405	590
	PL-9	355	450	670
	PL-11	300	410	600
	SM-50	450	600	900
	SM-60	540	720	1080
	SM-70S	530	760	1100
	SM-100	830	1200	1550
	PL-5	0.03	0.03	0.09
	PL-7	0.02	0.02	0.08
Core loss	PL-9	0.02	0.02	0.06
	PL-11	0.02	0.02	0.06
				0.04

Note : 1) Core loss

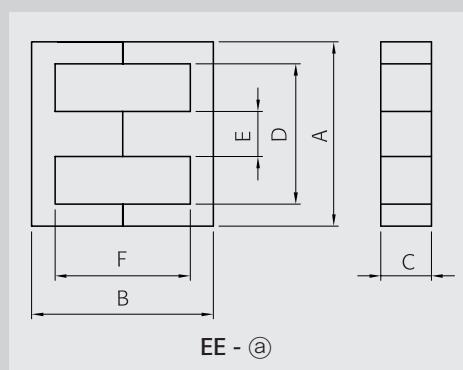
- Unit : Watt max.
- Measuring conditions
- PL-5, PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
- PL-9 : 100 kHz, 200 mT, at 80°C

2) AL value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
- Tolerance: $\pm 25\%$ (SM-100 Mirror-grind : $\pm 30\%$)

	EE1010S	EE1011S	EE1308S	EE1312N	EE1312S	EE1313S	EE1612S	EE1614S	EE1616S	
	EE - @	EE - @	EE - @	EE - @	EE - @	EE - @	EE - @	EE - @	EE - @	
A	10.30 ±0.20	10.20 ^{+0.30} _{-0.10}	12.70 ⁺⁰ _{-0.35}	13.00 ±0.30	13.00 ±0.30	12.60 ^{+0.50} _{-0.40}	16.10 ±0.60	16.00 ±0.30	16.10 ±0.60	
B	10.20 ±0.20	11.00 ^{+0.30} _{-0.20}	7.84 ^{+0.10} _{-0.20}	12.30 ±0.30	12.00 ±0.30	13.00 ⁺⁰ _{-0.40}	11.60 ±0.30	14.20 ^{+0.40} ₋₀	16.10 ±0.30	
C	2.80 ±0.20	4.90 ⁺⁰ _{-0.30}	6.50 ⁺⁰ _{-0.35}	6.40 ^{+0.20} _{-0.10}	5.90 ±0.20	3.70 ⁺⁰ _{-0.30}	7.25 ±0.25	5.00 ⁺⁰ _{-0.40}	4.50 ±0.20	
D	7.90 ±0.20	7.80 ^{+0.30} _{-0.10}	10.50 ±0.20	10.20 ^{+0.30} _{-0.10}	10.20 ±0.20	8.90 ^{+0.60} ₋₀	11.60 ±0.30	12.00 ±0.30	11.30 min.	
E	2.30 ±0.20	2.40 ±0.20	3.18 ±0.10	3.80 ^{+0.05} _{-0.25}	3.18 ±0.10	3.70 ⁺⁰ _{-0.30}	4.55 ±0.15	4.00 ⁺⁰ _{-0.40}	4.55 ±0.15	
F	7.90 ±0.20	8.60 ^{+0.30} _{-0.20}	5.75 ±0.20	8.60 ±0.15	5.75 ±0.20	9.00 ^{+0.60} ₋₀	7.50 ±0.40	10.40 ^{+0.50} ₋₀	11.80 ±0.40	
C1(mm ³)	3.830	2.330	1.550	1.374	1.883	2.390	0.911	1.921	1.930	
Le(mm)	25.0	26.6	21.8	28.6	30.3	29.7	28.8	35.5	37.7	
Ae(mm ²)	6.5	11.4	14.0	20.8	16.0	12.4	31.6	18.4	19.5	
Ve(mm ³)	163	302	305	595	487	369	909	655	737	
Ac(mm ²)	6.4	11.4	20.1	23.8	15.3	12.6	33.0	18.2	20.4	
Aw(mm ²)	22.1	23.7	21.0	28.3	34.9	26.2	26.4	43.6	43.3	
W(g/set)	0.8	1.5	1.6	3.1	2.4	1.8	4.7	3.2	3.7	
Al value	PL-5	430	810	1250	1450	1000	810	2300	1100	1100
	PL-7	430	810	1250	1450	1000	810	2300	1100	1100
	PL-9	480	940	1430	1650	1200	940	2700	1300	1300
	PL-11	440	800	1300	1500	1000	800	2400	1200	1200
	SM-50	750	1400	2000	2350	1750	1350	4200	1900	2000
	SM-60	900	1680	2400	2820	2100	1620	5040	2280	2400
	SM-70S	1000	1750	2500	3000	2200	1700	7560	2300	2600
	SM-100	1700	2500	3650	4500	3350	2600	8200	3400	3550
Core loss	PL-5	0.11	0.20	0.20	0.36	0.30	0.23	0.54	0.40	0.45
	PL-7	0.09	0.16	0.16	0.30	0.25	0.19	0.45	0.33	0.38
	PL-9	0.08	0.14	0.14	0.27	0.22	0.17	0.41	0.30	0.31
	PL-11	0.08	0.14	0.14	0.27	0.22	0.17	0.41	0.30	0.31

EE CORES



Part No.	EE1625S	EE1916B	EE1916S	EE1927S
Type	EE - @	EE - @	EE - @	EE - @
Dimensions in mm	A	16.00 ± 0.40	19.00 ± 0.30	19.00 ± 0.30
	B	24.50 ± 0.40	15.90 ± 0.40	16.10 ± 0.40
	C	5.10 ± 0.40	5.10 ± 0.50	5.20 ± 0.40
	D	12.00 ± 0.30	4.00 ± 0.30	14.50 ± 0.30
	E	4.20 ± 0.40	5.10 ± 0.50	4.70 ± 0.50
	F	20.40 ± 0.40	11.30 ± 0.30	11.30 ± 0.30
Core Set Parameters	C1(mm⁻¹)	2.800	1.680	1.743
	Le(mm)	55.2	39.2	39.9
	Ae(mm²)	19.6	23.3	22.8
	Ve(mm³)	1080	914	913
	Ac(mm²)	19.6	23.5	22.2
	Aw(mm²)	81.5	51.6	56.7
	W(g/set)	5.3	4.6	4.6
Electrical Characteristics ⁽¹⁾⁽²⁾	PL-5	750	1300	1250
	PL-7	750	1300	1250
	PL-9	900	1530	1480
	PL-11	800	1400	1300
	SM-50	1550	2250	2250
	SM-60	1860	2700	2700
	SM-70S	1900	2800	2800
	SM-100	2550	3850	3850
	PL-5	0.65	0.55	0.55
	PL-7	0.54	0.46	0.46

AI value	PL-5	PL-7	PL-9	PL-11
Core loss	0.65	0.54	0.45	0.45

Note : 1) Core loss

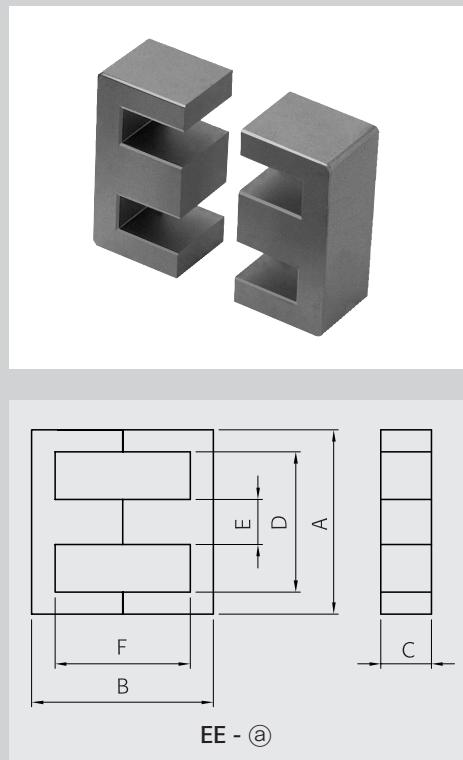
- Unit : Watt max.
 - Measuring conditions
- PL-5, PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
PL-9 : 100 kHz, 200 mT, at 80°C

2) AL value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
- Tolerance: $\pm 25\%$ (SM-100 Mirror-grind : $\pm 30\%$)

	EE2017S	EE2020A	EE2020S	EE2027S	EE2218S	EE2219S	EE2220S	EE2229S	EE2329S	
	EE - @	EE - @	EE - @	EE - @	EE - @	EE - @	EE - @	EE - @	EE - @	
A	20.30 ± 0.40	20.00 $^{+0.70}_{-0.40}$	20.40 $^{+0}_{-0.80}$	20.00 ± 0.40	22.00 ± 0.40	22.00 ± 0.40	22.10 ± 0.40	22.00 ± 0.40	23.00 ± 0.40	
B	16.80 ± 0.40	20.40 $^{+0}_{-0.80}$	20.20 $^{+0}_{-0.40}$	27.30 ± 0.50	18.90 ± 0.40	18.60 ± 0.40	19.80 ± 0.30	29.40 $^{+0.80}_{-0}$	29.40 $^{+0.80}_{-0}$	
C	4.80 ± 0.20	5.30 $^{+0}_{-0.40}$	5.90 $^{+0}_{-0.40}$	5.10 $^{+0}_{-0.50}$	6.00 $^{+0}_{-0.60}$	6.00 $^{+0}_{-0.60}$	5.00 ± 0.25	6.00 $^{+0}_{-0.50}$	6.00 $^{+0}_{-0.50}$	
D	15.70 ± 0.40	14.10 ± 0.30	14.10 ± 0.30	15.00 ± 0.40	16.00 ± 0.40	14.00 ± 0.30	17.60 ± 0.30	16.00 ± 0.40	17.00 ± 0.40	
E	4.80 ± 0.20	5.90 $^{+0}_{-0.30}$	5.90 $^{+0}_{-0.30}$	5.10 $^{+0}_{-0.50}$	6.00 $^{+0}_{-0.60}$	6.00 $^{+0}_{-0.60}$	4.00 ± 0.30	6.00 $^{+0}_{-0.50}$	6.00 $^{+0}_{-0.50}$	
F	12.40 ± 0.40	14.00 $^{+0.60}_{-0}$	14.00 $^{+0.60}_{-0}$	22.80 ± 0.50	10.90 ± 0.30	10.60 ± 0.30	15.20 ± 0.30	21.40 $^{+0.80}_{-0}$	21.40 $^{+0.80}_{-0}$	
C1(mm ³)	1.943	1.420	1.431	2.700	1.143	1.016	2.340	1.787	1.809	
Le(mm)	42.8	43.4	46.1	63.1	42.3	40.2	50.8	63.9	64.9	
Ae(mm ²)	22.0	30.5	32.2	23.3	37.0	39.5	21.6	35.7	35.8	
Ve(mm ³)	942	1320	1480	1470	1565	1590	1100	2280	2320	
Ac(mm ²)	23.0	25.5	32.7	23.5	34.2	32.4	20.0	33.0	33.0	
Aw(mm ²)	67.5	53.3	61.8	115.0	55.9	43.9	103.0	111.0	122.0	
W(g/set)	4.7	7.3	7.5	7.3	8.5	8.7	5.5	11	12	
AI value	PL-5	1100	1550	1540	830	1900	2200	950	1300	1250
	PL-7	1100	1550	1540	830	1900	2200	950	1300	1250
	PL-9	1300	1850	1830	1000	2300	2500	1100	1450	1400
	PL-11	1200	1600	1600	900	2000	2300	1000	1400	1300
	SM-50	2000	2800	2800	1550	3380	3800	1800	2400	2400
	SM-60	2400	3360	3360	1860	4050	4560	2160	2880	2880
	SM-70S	2600	3600	3600	2050	4310	4850	2300	3300	3300
	SM-100	3500	4850	4850	2700	5910	6650	3000	4100	4100
Core loss	PL-5	0.57	0.80	0.89	0.89	0.91	0.96	0.66	1.37	1.40
	PL-7	0.48	0.67	0.74	0.74	0.77	0.80	0.55	1.15	1.16
	PL-9	0.39	0.55	0.61	0.61	0.71	0.66	0.46	0.94	0.96
	PL-11	0.39	0.55	0.61	0.61	0.71	0.66	0.46	0.94	0.96

EE CORES



Part No.	EE2518W	EE2519S	EE2520S	EE2520ST	
Type	EE - @	EE - @	EE - @	EE - @	
Dimensions in mm	A	25.05 \pm 0.75	25.40 \pm 0.40	25.00 \pm 0.40	25.40 \pm 0.40
	B	18.10 \pm 0.50	19.05 \pm 0.40	20.00 \pm 0.40	19.95 \pm 0.40
	C	10.75 \pm 0.30	6.35 \pm 0.30	6.55 \pm 0.30	6.35 \pm 0.30
	D	17.90 \pm 0.40	19.00 \pm 0.30	18.60 \pm 0.30	19.00 \pm 0.30
	E	7.25 \pm 0.25	6.35 \pm 0.30	6.55 \pm 0.30	6.35 \pm 0.30
	F	10.90 \pm 0.30	12.70 \pm 0.30	13.60 \pm 0.30	13.60 \pm 0.30
Core Set Parameters	C1(mm⁻¹)	0.567	1.189	1.169	1.233
	Le(mm)	43.8	48.0	49.4	49.8
	Ae(mm²)	77.3	40.4	42.2	40.4
	Ve(mm³)	3386	1940	2080	2010
	Ac(mm²)	77.9	40.3	42.9	40.3
	Aw(mm²)	58.0	80.3	81.9	86.0
Electrical Characteristics ⁽¹⁾⁽²⁾	W(g/set)	17	9.8	10	10
	PL-5	4200	1900	1950	1850
	PL-7	4200	1900	1950	1850
	PL-9	4900	2200	2300	2150
	PL-11	4300	2000	2000	1900
	SM-50	7130	3400	3550	3400
Core loss	SM-60	8560	4080	4260	4080
	SM-70S	9330	4450	4450	4400
	SM-100	12370	5900	6000	5700
	PL-5	2.00	1.17	1.25	1.21
	PL-7	1.70	0.97	1.05	1.01
	PL-9	1.56	0.80	0.86	0.83
PL-11	PL-11	1.56	0.80	0.86	0.83

Note : 1) Core loss

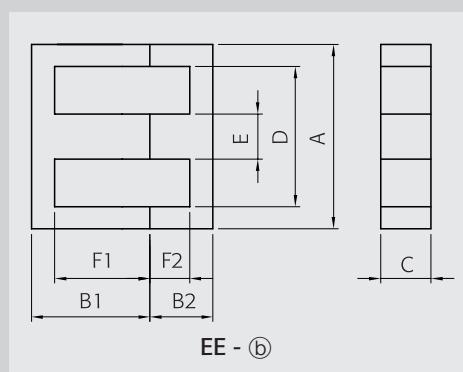
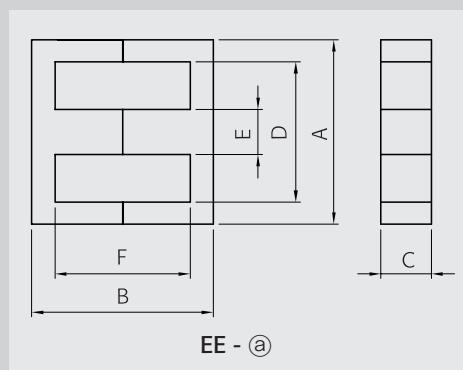
- Unit : Watt max.
- Measuring conditions
- PL-5, PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
- PL-9 : 100 kHz, 200 mT, at 80°C

2) AL value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
- Tolerance: \pm 25% (SM-100 Mirror-grind : \pm 30%)

	EE2525F	EE2525S	EE2525W	EE2532B	EE2532S	EE2621S	EE2721S	EE2722S	EE2821S	
	EE - @	EE - @	EE - @	EE - @	EE - @	EE - @	EE - @	EE - @	EE - @	
A	25.05 ± 0.75	24.50 ± 0.40	25.05 ± 0.75	25.30 $^{+0.50}_{-0.30}$	25.30 $^{+0.50}_{-0.30}$	26.00 ± 0.50	27.00 ± 0.50	27.00 ± 0.50	28.00 ± 0.40	
B	25.10 ± 0.50	25.00 ± 0.40	25.10 ± 0.50	31.60 $^{+0.60}_{-0.30}$	32.00 ± 0.40	21.10 ± 0.40	21.10 ± 0.40	22.00 ± 0.40	21.00 ± 0.50	
C	7.20 ± 0.30	7.00 ± 0.30	10.75 ± 0.30	6.35 ± 0.25	7.00 $^{+0}_{-0.50}$	10.00 ± 0.50	11.00 ± 0.50	11.00 ± 0.50	11.50 $^{+0}_{-0.50}$	
D	17.90 ± 0.40	17.90 ± 0.40	17.90 ± 0.40	19.30 $^{+0.40}_{-0.20}$	19.30 $^{+0.40}_{-0.20}$	19.00 min.	19.20 min.	19.20 min.	19.30 ± 0.30	
E	7.25 ± 0.25	7.30 ± 0.20	7.25 ± 0.25	6.50 $^{+0.30}_{-0.25}$	6.50 $^{+0.30}_{-0.25}$	7.30 ± 0.50	7.30 ± 0.50	7.30 ± 0.50	8.00 ± 0.30	
F	17.90 ± 0.50	18.40 ± 0.40	17.90 ± 0.50	25.40 ± 0.60	25.40 ± 0.60	13.60 ± 0.40	13.60 ± 0.40	14.50 ± 0.40	11.40 ± 0.50	
C1(mm ³)	1.114	1.212	0.746	1.844	1.744	0.728	0.632	0.654	0.492	
Le(mm)	57.8	57.8	57.8	73.5	73.9	50.9	51.2	53.0	48.0	
Ae(mm ²)	51.8	47.7	77.3	39.8	42.3	69.9	81.1	81.1	97.5	
Ve(mm ³)	2990	2760	4470	2930	3130	3558	4152	4297	4680	
Ac(mm ²)	52.1	51.1	77.9	41.4	44.0	73.0	84.3	84.3	89.1	
Aw(mm ²)	95.3	97.5	95.3	163.0	164.0	83.0	84.3	86.1	64.4	
W(g/set)	15	14	22	14	16	22	21	22	24	
Al value	PL-5	2100	1850	3150	1200	1300	2900	3300	3200	4350
	PL-7	2100	1850	3150	1200	1300	2900	3300	3200	4350
	PL-9	2350	2150	3500	1400	1500	3400	3800	3700	5050
	PL-11	2200	1900	3300	1300	1400	3000	3400	3300	4500
	SM-50	4000	3300	5800	2500	2640	6040	6960	6720	8940
	SM-60	4800	3960	6960	3000	3170	7250	8350	8070	10730
	SM-70S	4900	4300	7500	3300	3440	8420	9700	9370	12460
	SM-100	6500	6000	9700	4100	4340	9490	10940	10500	14050
Core loss	PL-5	1.80	1.66	2.70	1.76	1.85	2.12	2.50	2.60	2.81
	PL-7	1.50	1.38	2.25	1.47	1.57	1.80	2.13	2.23	2.35
	PL-9	1.23	1.14	1.85	1.21	1.44	1.66	1.92	2.01	1.92
	PL-11	1.23	1.14	1.85	1.21	1.44	1.66	1.92	2.01	1.92

EE CORES



Part No.	EE2821SC	EE2825S	EE2828S	EE2834S
Type	EE - @	EE - @	EE - @	EE - @
Dimensions in mm	A	28.50 ± 0.50	28.00 ± 0.50	28.40 ± 0.40
	B	20.90 ± 0.40	25.50 ± 0.60	28.40 ± 0.40
	C	10.90 ± 0.30	10.60 ± 0.20	10.70 ± 0.30
	D	20.50 ± 0.30	18.60 min.	20.40 ± 0.40
	E	7.30 ± 0.30	7.20 ± 0.30	7.50 ± 0.60
	F	13.30 ± 0.40	16.50 ± 0.40	19.40 ± 0.40
Core Set Parameters	C1(mm⁻¹)	0.623	0.664	0.762
	Le(mm)	51.7	57.7	64.6
	Ae(mm²)	82.9	86.9	84.7
	Ve(mm³)	4290	5010	5470
	Ac(mm²)	79.5	76.3	77.0
	Aw(mm²)	87.7	98.1	128.0
Electrical Characteristics ⁽¹⁾⁽²⁾	W(g/set)	21	26	28
	PL-5	3500	3300	3000
	PL-7	3500	3300	3000
	PL-9	4050	3850	3400
	PL-11	3700	3400	3100
	SM-50	7060	6630	5770
Core loss	SM-60	8470	7950	6930
	SM-70S	9840	9230	8040
	SM-100	11100	10410	9070
	PL-5	2.58	3.01	3.30
	PL-7	2.15	2.51	2.75
	PL-9	1.76	2.06	2.25
	PL-11	1.76	2.06	2.25

Note : 1) Core loss

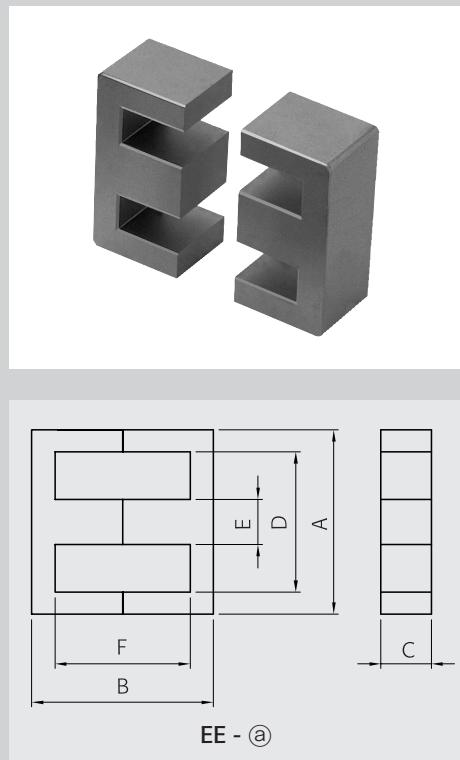
- Unit : Watt max.
- Measuring conditions
- PL-5, PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
- PL-9 : 100 kHz, 200 mT, at 80°C

2) AL value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
- Tolerance: ±25% (SM-100 Mirror-grind :±30%)

	EE3026A	EE3026S	EE3030A	EE3030S	EE3232S	EE3327S	EE3335S	EE3528S	EE3529S	
	EE - @	EE - @	EE - @	EE - @	EE - @	EE - @	EE - @	EE - @	EE - @	
A	30.00 ± 0.50	30.00 ± 0.50	30.00 ± 0.50	30.00 ± 0.50	32.10 ± 0.80	33.40 ± 0.50	33.50 ± 0.50	34.60 ± 0.50	34.70 ± 0.40	
B	26.00 ± 0.50	26.60 ± 0.40	30.40 ± 0.60	30.00 ± 0.20	32.20 ± 0.60	27.40 $^{+1.0}_{-0}$ B1:21.60 ± 0.20 B2:13.30 ± 0.20	B1:21.60 ± 0.20 B2:13.30 ± 0.20	28.60 ± 0.60	28.75 ± 0.40	
C	10.00 $^{+0}_{-0.60}$	10.70 ± 0.30	11.80 ± 0.30	7.10 ± 0.20	9.15 ± 0.20	13.00 $^{+0}_{-0.60}$	12.70 ± 0.30	9.30 ± 0.30	9.20 $^{+0.25}_{-0.30}$	
D	20.00 ± 0.40	19.50 min.	22.30 min.	19.90 ± 0.40	23.20 ± 0.50	24.60 ± 0.40	24.60 ± 0.40	25.60 ± 0.50	25.40 ± 0.40	
E	10.00 $^{+0}_{-0.60}$	10.70 ± 0.30	7.20 ± 0.30	6.90 ± 0.30	9.20 ± 0.30	10.00 $^{+0}_{-0.60}$	9.70 ± 0.30	9.40 ± 0.25	9.40 ± 0.20	
F	16.00 ± 0.30	16.60 ± 0.30	23.20 ± 0.60	19.90 ± 0.50	23.00 ± 0.60	18.80 $^{+1.0}_{-0}$ F1:17.10 ± 0.20 F2: 8.80 ± 0.20	F1:17.10 ± 0.20 F2: 8.80 ± 0.20	19.60 ± 0.50	19.25 ± 0.40	
C1(mm ³)	0.603	0.539	0.862	1.089	0.894	0.589	0.693	0.821	0.804	
Le(mm)	57.9	57.9	73.3	65.4	74.3	67.4	81.0	69.7	69.3	
Ae(mm ²)	107.0	107.0	85.0	60.0	83.1	114.0	116.0	84.8	86.2	
Ve(mm ³)	6210	6210	6231	3920	6180	7690	9450	5910	5970	
Ac(mm ²)	114.0	114.0	85.0	48.9	84.1	123.0	123.0	87.4	86.2	
Aw(mm ²)	77.1	77.1	181.0	129.0	161.0	143.0	192.0	158.0	154.0	
W(g/set)	32	32	32	21	31	39	47	29	30	
AI value	PL-5	3550	4000	2400	2000	2400	3700	3300	2600	2850
	PL-7	3550	4000	2400	2000	2400	3700	3300	2600	2850
	PL-9	4150	4800	2800	2350	2850	4300	3700	3100	3250
	PL-11	3700	4200	2600	2100	2500	3900	3400	2700	3000
	SM-50	7300	8160	5100						
	SM-60	8760	9790	6120						
	SM-70S	10160	11370	7110						
	SM-100	11470	12830	8020						
Core loss	PL-5	3.35	3.75	3.74	2.36	3.71	4.62	5.70	3.55	3.60
	PL-7	2.78	3.11	3.18	1.96	3.10	3.85	4.75	2.96	3.00
	PL-9	2.28	2.55	2.87	1.61	2.54	3.16	3.90	2.43	2.45
	PL-11	2.28	2.55	2.87	1.61	2.54	3.16	3.90	2.43	2.45

EE CORES



Part No.		EE3530S	EE3549S	EE3643S	EE4035S	
Type		EE - @	EE - @	EE - @	EE - @	
Dimensions in mm	A	35.00 ± 0.50	35.00 ± 0.50	36.00 ± 0.70	40.00 ± 0.50	
	B	30.20 ± 0.50	48.80 ± 0.40	43.10 ± 0.40	34.50 ± 0.80	
	C	12.00 ± 0.50	10.00 ± 0.30	11.75 ± 0.25	12.00 ± 0.70	
	D	25.00 ± 0.40	24.50 min.	25.10 ± 0.60	27.50 ± 0.70	
	E	10.30 ± 0.50	10.00 ± 0.30	9.95 ± 0.25	12.00 ± 0.70	
	F	18.20 ± 0.30	36.60 ± 0.40	32.10 ± 0.60	20.40 ± 0.20	
Core Set Parameters		C1(mm^{-1})	0.549	0.994	0.776	
		L _e (mm)	68.3	104.0	96.0	
		A _e (mm^2)	124.0	104.0	123.0	
		V _e (mm^3)	8500	10900	11870	
		A _c (mm^2)	118.0	100.0	116.0	
		A _w (mm^2)	136.0	270.0	243.0	
		W(g/set)	44	56	60	
Electrical Characteristics ⁽¹⁾⁽²⁾	AL value	PL-5	4000	2200	2850	4000
	AL value	PL-7	4000	2200	2850	4000
	AL value	PL-9	4700	2600	3300	4800
	AL value	PL-11	4200	2300	3000	4200
	Core loss	PL-5	5.10	6.55	7.15	6.85
	Core loss	PL-7	4.30	5.50	6.00	5.70
	Core loss	PL-9	3.50	4.50	4.90	4.70
	Core loss	PL-11	3.50	4.50	4.90	4.70

Note : 1) Core loss

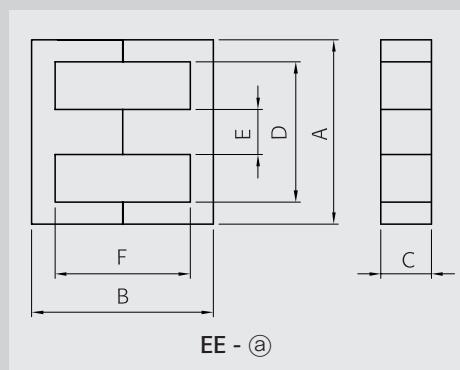
- Unit : Watt max.
 - Measuring conditions
- | | |
|-------------------|-----------------------------|
| PL-5, PL-7, PL-11 | : 100 kHz, 200 mT, at 100°C |
| PL-9 | : 100 kHz, 200 mT, at 80°C |

2) AL value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
- Tolerance: $\pm 25\%$

	EE4133B	EE4133N	EE4133S	EE4242B	EE4242S	EE4740S	EE5040S	EE5555A	EE5555S
	EE - @	EE - @	EE - @	EE - @	EE - @	EE - @	EE - @	EE - @	EE - @
A	41.50 ± 0.80	41.50 ± 0.80	41.28 ± 0.80	42.00 $^{+1.00}_{-0.70}$	42.00 $^{+1.00}_{-0.70}$	47.12 ± 0.76	50.15 $^{+0.70}_{-0.50}$	55.15 ± 1.05	55.15 ± 1.05
B	33.00 ± 0.40	34.00 ± 0.40	33.52 ± 0.40	42.40 ± 0.40	42.40 ± 0.40	39.26 ± 0.40	41.90 ± 0.50	55.00 ± 0.60	55.00 ± 0.60
C	12.70 ± 0.25	12.70 ± 0.25	12.70 ± 0.25	15.00 ± 0.30	20.00 $^{+0}_{-0.80}$	15.62 ± 0.25	15.70 $^{+0}_{-0.50}$	21.00 $^{+0}_{-0.80}$	24.70 ± 0.30
D	28.80 min.	29.00 min.	28.01 min.	29.50 $^{+1.20}_{-0}$	29.50 $^{+1.20}_{-0}$	31.72 min.	33.00 ± 0.50	38.10 ± 0.60	38.10 ± 0.60
E	12.50 ± 0.20	12.50 ± 0.20	12.70 ± 0.25	12.20 $^{+0}_{-0.50}$	12.20 $^{+0}_{-0.50}$	15.62 ± 0.25	15.70 $^{+0}_{-0.50}$	16.95 ± 0.25	16.95 ± 0.25
F	20.80 ± 0.40	21.20 ± 0.40	20.82 ± 0.40	30.00 $^{+0.80}_{-0}$	30.00 $^{+0.80}_{-0}$	24.40 ± 0.26	24.90 ± 0.50	37.60 ± 0.60	37.60 ± 0.60
C1(mm ³)	0.509	0.500	0.480	0.547	0.416	0.380	0.366	0.350	0.292
Le(mm)	77.6	79.0	77.5	97.9	97.8	89.2	93.3	123.0	123.0
Ae(mm ²)	152.5	157.0	161.3	178.0	235.0	234.0	254.0	352.0	422.0
Ve(mm ³)	11825	12470	12501	17510	23000	20920	23790	43470	52130
Ac(mm ²)	158.0	158.0	151.8	176.0	234.0	228.0	238.0	349.0	418.0
Aw(mm ²)	177.8	180.0	164.6	278.0	275.0	205.0	218.0	397.0	397.0
W(g/set)	63	64	64	88	116	107	123	221	265
Al value	PL-5	4200	4200	4400	3800	5000	5500	5800	6000
	PL-7	4200	4200	4400	3800	5000	5500	5800	6000
	PL-9	4800	4900	5100	4500	6000	6600	6800	7100
	PL-11	4300	4400	4600	4000	5200	5700	6000	6300
Core loss	PL-5	7.20	7.50	7.44	10.60	14.00	12.60	14.30	26.10
	PL-7	6.00	6.25	6.20	8.80	11.60	10.50	12.00	22.00
	PL-9	5.52	5.15	5.70	7.20	9.50	8.60	9.80	20.00
	PL-11	5.52	5.15	5.70	7.20	9.50	8.60	9.80	24.00

EE CORES



Part No.	EE5747S	EE6565S	EE8076S	
Type	EE - @	EE - @	EE - @	
Dimensions in mm	A	56.60 \pm 0.60	65.15 \pm 1.35	80.00 \pm 0.80
	B	47.30 \pm 0.50	65.00 \pm 0.60	76.10 \pm 0.40
	C	18.80 \pm 0.30	27.00 \pm 0.40	20.00 \pm 0.40
	D	38.60 \pm 0.50	45.10 \pm 0.90	60.00 \pm 0.60
	E	18.80 \pm 0.30	19.65 \pm 0.35	20.00 \pm 0.40
	F	29.30 \pm 0.60	45.20 \pm 0.80	56.10 \pm 0.60

Core Set Parameters	C1(mm ⁻¹)	0.312	0.274	0.475
	Le(mm)	107.0	147.0	189.8
	Ae(mm ²)	343.0	535.0	400.0
	Ve(mm ³)	36710	78700	75920
	Ac(mm ²)	353.0	530.0	400.0
	Aw(mm ²)	290.0	575.0	1122.0
	W(g/set)	189	399	391

Electrical Characteristics ⁽¹⁾⁽²⁾	AL value	PL-5	7000	8000	4500
	AL value	PL-7	7000	8000	4500
	AL value	PL-9	8200	9150	5200
	AL value	PL-11	7300	8300	4700
	Core loss	PL-5	22.50	48.00	45.80
Core loss	Core loss	PL-7	19.00	40.00	38.30
	Core loss	PL-9	17.00	36.00	34.50
	Core loss	PL-11	17.00	36.00	34.50
	Core loss				

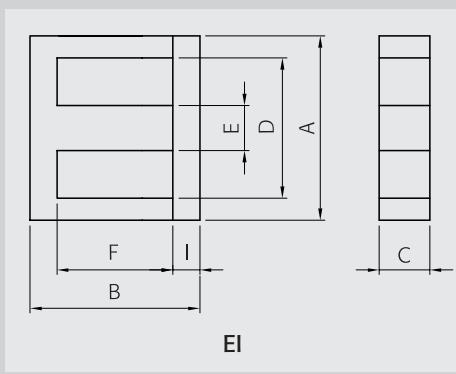
Note : 1) Core loss

- Unit : Watt max.
 - Measuring conditions
- | | |
|-------------------|-----------------------------|
| PL-5, PL-7, PL-11 | : 100 kHz, 200 mT, at 100°C |
| PL-9 | : 100 kHz, 200 mT, at 80°C |

2) AL value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
- Tolerance: \pm 25%

EI CORES



Part No.		EI1309S	EI1614S	EI1916S	EI2016S
Type		EI	EI	EI	EI
Dimensions in mm	A	12.50 ± 0.20	16.00 ± 0.30	19.00 ± 0.30	20.00 ± 0.30
	B	9.10 ± 0.40	14.70 ± 0.30	15.90 ± 0.40	15.85 ± 0.35
	C	5.00 ± 0.10	4.80 ± 0.20	5.10 ± 0.50	5.00 ± 0.20
	D	9.20 ± 0.50	11.80 min.	14.00 ± 0.30	14.30 min.
	E	2.50 ± 0.10	4.00 ± 0.20	5.10 ± 0.50	4.55 ± 0.20
	F	5.00 ± 0.15	10.80 ± 0.20	11.30 ± 0.30	11.15 ± 0.30
	I	1.60 ± 0.15	2.00 ± 0.20	2.35 ± 0.20	2.30 ± 0.10

Core Set Parameters	C1(mm ⁻¹)	1.378	1.900	1.681	1.650
	L _e (mm)	21.2	35.9	39.2	39.6
	A _e (mm ²)	15.3	18.8	23.3	24.0
	V _e (mm ³)	325	676	913	950
	A _c (mm ²)	12.1	19.2	23.5	22.8
	A _w (mm ²)	16.7	43.7	51.6	56.6
	W(g/set)	1.9	3.4	4.6	5.1

Electrical Characteristics ⁽¹⁾⁽²⁾	AL value	PL-5	1400	1250	1300	1097
	PL-7	1400	1250	1300	1097	
	PL-9	1600	1330	1530	1400	
	PL-11	1500	1300	1400	1100	
	SM-50	2200	1950	2350	2670	
	SM-60	2640	2340	2820	3200	
	SM-70S	2750	2400	2900	3710	
	SM-100	4050	3450	4000	4190	
	Core loss	PL-5	0.20	0.42	0.55	0.56
	PL-7	0.17	0.35	0.46	0.48	
	PL-9	0.14	0.28	0.38	0.42	
	PL-11	0.14	0.28	0.38	0.42	

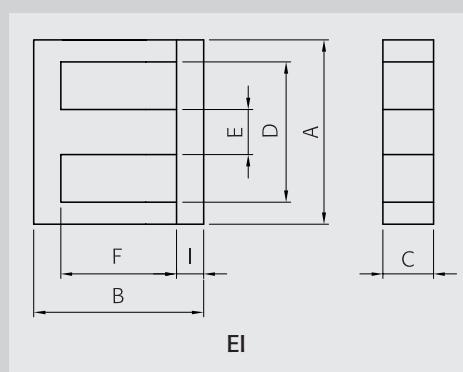
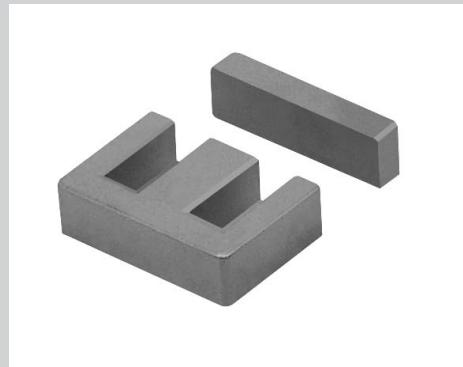
Note : 1) Core loss

- Unit : Watt max.
- Measuring conditions
PL-5, PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
PL-9 : 100 kHz, 200 mT, at 80°C

2) AL value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
- Tolerance: $\pm 25\%$ (SM-100 Mirror-grind : $\pm 30\%$)

EI CORES



Part No.	EI2218S	EI2418S	EI2519C	EI2519S
Type	EI	EI	EI	EI
Dimensions in mm	A	22.00 ± 0.40	24.00 ± 0.40	25.00 $^{+0.50}_{-0.30}$
	B	19.00 ± 0.40	18.10 ± 0.40	19.00 ± 0.50
	C	6.00 $^{+0}_{-0.50}$	9.65 ± 0.20	7.00 $^{+0}_{-0.50}$
	D	16.00 ± 0.40	18.10 ± 0.30	19.10 min.
	E	6.00 $^{+0}_{-0.50}$	6.00 ± 0.20	6.50 ± 0.30
	F	10.80 $^{+0.40}_{-0}$	12.20 ± 0.20	13.00 $^{+0.50}_{-0}$
	I	4.00 ± 0.20	2.90 ± 0.20	2.90 $^{+0}_{-0.30}$
Core Set Parameters	C1(mm⁻¹)	1.148	0.800	1.221
	Le(mm)	42.5	45.8	48.6
	Ae(mm²)	37.0	57.2	39.7
	Ve(mm³)	1570	2621	1930
	Ac(mm²)	33.0	57.9	43.8
	Aw(mm²)	56.3	76.3	86.1
	W(g/set)	8.4	14	9.8

Electrical Characteristics ⁽¹⁾⁽²⁾	PL-5	1950	2700	1900	2000
	PL-7	1950	2700	1900	2000
	PL-9	2100	3100	2100	2300
	PL-11	2000	2800	2000	2000
	SM-50	3500	5500	3500	3650
	SM-60	4200	6600	4200	4380
	SM-70S	4350	7660	4300	5080
	SM-100	5950	8640	5750	5730
Core loss	PL-5	0.95	1.56	1.16	1.15
	PL-7	0.80	1.30	0.97	0.96
	PL-9	0.65	1.20	0.08	0.88
	PL-11	0.65	1.20	0.08	0.88

Note : 1) Core loss

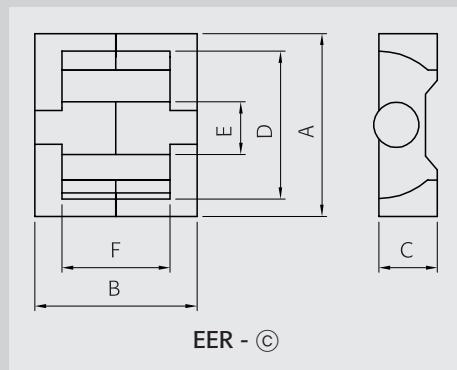
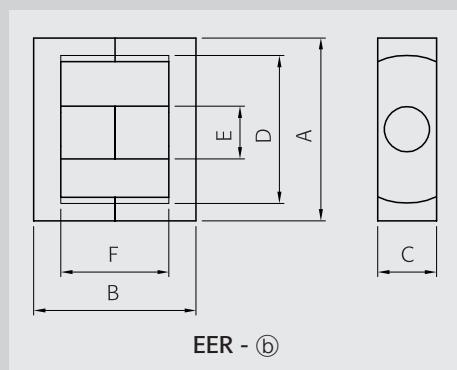
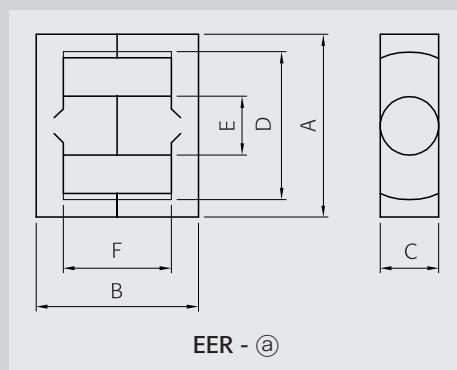
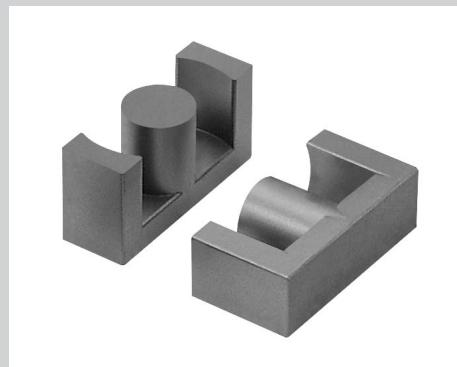
- Unit : Watt max.
- Measuring conditions
PL-5, PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
PL-9 : 100 kHz, 200 mT, at 80°C

2) AL value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
- Tolerance: $\pm 25\%$ (SM-100 Mirror-grind : $\pm 30\%$)

	EI2820S	EI3026S	EI3329S	EI3530A	EI3530S	EI4035S	EI5040S	EI6044S	EI7064S	
	EI									
A	28.00 ± 0.40	30.00 ± 0.50	33.00 ± 0.50	35.00 ± 0.50	35.00 ± 0.50	40.00 ± 0.70	50.00 ± 0.70	60.00 ± 1.00	70.00 ± 1.20	
B	20.80 ± 0.40	26.70 ± 0.60	28.60 ± 0.50	28.60 ± 0.50	29.70 ± 0.50	34.70 ± 0.60	42.00 ± 0.80	44.40 ± 0.80	64.40 ± 0.25	
C	11.00 ± 0.60	11.00 ± 0.70	12.70 ± 0.25	10.00 ± 0.30	12.00 ± 0.50	12.00 ± 0.70	15.00 ± 0.70	15.80 ± 0.80	31.60 ± 0.50	
D	18.60 min.	20.00 ± 0.70	24.00 ± 0.50	24.50 ± 0.40	25.00 ± 0.40	27.50 ± 0.70	34.50 ± 1.00	44.50 min.	46.30 min.	
E	7.50 ± 0.60	11.00 ± 0.70	10.00 ± 0.50	10.00 ± 0.30	10.30 ± 0.50	12.00 ± 0.70	15.00 ± 0.70	15.80 ± 0.80	22.20 ± 0.50	
F	12.80 ± 0.20	16.20 ± 0.60	19.20 ± 0.30	18.00 ± 0.40	18.20 ± 0.30	20.20 ± 0.60	24.50 ± 0.60	27.50 ± 0.70	42.80 ± 0.25	
I	3.50 ± 0.15	5.50 ± 0.20	5.20 ± 0.20	4.60 ± 0.30	5.50 ± 0.20	7.50 ± 0.25	9.00 ± 0.25	8.50 ± 0.25	10.40 ± 0.50	
C1(mm ⁴)	0.586	0.537	0.567	0.650	0.554	0.526	0.417	0.452	0.208	
Le(mm)	49.5	58.8	67.1	66.9	68.0	77.4	95.0	110.0	145.0	
Ae(mm ²)	84.4	109.0	118.0	102.0	122.0	147.0	227.0	244.0	698.0	
Ve(mm ³)	4170	6440	7640	6880	8350	11390	21660	26950	101530	
Ac(mm ²)	77.0	113.0	123.0	100.0	118.0	135.0	213.0	237.0	701.0	
Aw(mm ²)	75.5	80.0	136.0	131.0	136.0	166.0	253.0	412.0	541.0	
W(g/set)	22	33	40	35	43	59	112	138	519	
Al value	PL-5	3800	4000	3800	3350	3950	4000	5200	4500	10500
	PL-7	3800	4000	3800	3350	3950	4000	5200	4500	10500
	PL-9	4300	4800	4600	4050	4700	4800	6100	5500	12000
	PL-11	4000	4200	4000	3500	4100	4200	5400	4700	10900
	SM-50	7000	8190							
	SM-60	8400	9830							
	SM-70S	9000	11410							
	SM-100	12000	12870							
Core loss	PL-5	2.52	3.90	4.80	4.15	5.10	6.85	13.00	16.30	61.50
	PL-7	2.10	3.25	4.00	3.50	4.20	5.70	10.90	13.50	51.50
	PL-9	1.72	2.65	3.26	2.85	3.45	4.70	8.90	11.10	46.20
	PL-11	1.72	2.65	3.26	2.85	3.45	4.70	8.90	11.10	46.20

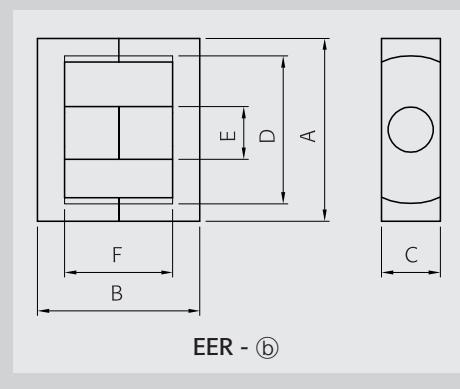
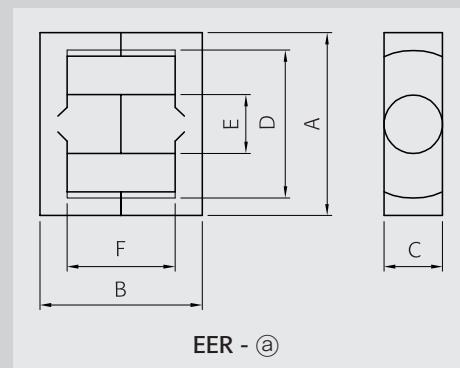
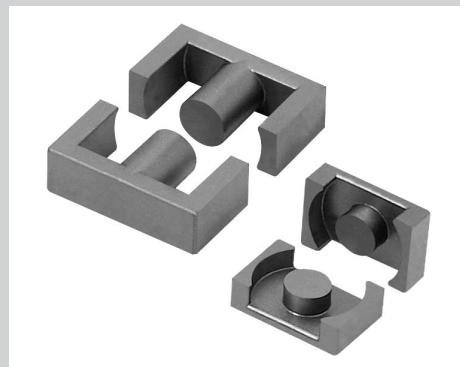
EER CORES



Part No.	EER0905S	EER1104S	EER1105S	EER1406S
Type	EER - (b)	EER - (b)	EER - (b)	EER - (b)
	A	9.35 ± 0.15	10.85 ± 0.17	10.85 ± 0.17
	B	4.90 ± 0.10	3.85 ± 0.10	4.90 ± 0.10
	C	4.90 ± 0.10	5.90 ± 0.10	5.90 ± 0.10
	D	7.50 min.	8.70 min.	8.70 min.
	E	3.40 ± 0.10	4.13 ± 0.12	4.13 ± 0.12
Dimensions in mm	F	3.35 ± 0.15	2.10 ± 0.15	3.15 ± 0.15
	C1(mm⁻¹)	1.670	1.080	1.230
	Le(mm)	14.2	12.6	14.7
	Ae(mm²)	8.5	11.7	11.9
	Ve(mm³)	120	147	174
	Ac(mm²)	9.1	13.4	13.4
Core Set Parameters	Aw(mm²)	7.2	5.0	7.5
	W(g/set)	0.6	0.8	1.0
	PL-5	1100	1750	1500
	PL-7	1100	1750	1500
	PL-9	1300	2030	1750
	PL-11	1200	1800	1600
Electrical Characteristics⁽¹⁾⁽²⁾	SM-50	2630	4070	3580
	SM-60	3160	4890	4290
	SM-70S	3670	5670	4980
	SM-100	4140	6400	5620
	PL-5	0.08	0.09	0.11
	PL-7	0.06	0.08	0.09
Core loss	PL-9	0.05	0.07	0.08
	PL-11	0.05	0.07	0.14
	PL-5	0.08	0.09	0.11
	PL-7	0.06	0.08	0.09
AL value	PL-9	0.05	0.07	0.08
	PL-11	0.05	0.07	0.14
	PL-5	0.08	0.09	0.11
	PL-7	0.06	0.08	0.09
Note : 1) Core loss				
<ul style="list-style-type: none"> - Unit : Watt max. - Measuring conditions 				
<ul style="list-style-type: none"> PL-5, PL-7, PL-11 : 100 kHz, 200 mT, at 100°C PL-9 : 100 kHz, 200 mT, at 80°C 				
2) AL value				
<ul style="list-style-type: none"> - Unit : nH/N² - Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C - Tolerance: $\pm 25\%$ (SM-100 Mirror-grind : $\pm 30\%$) 				

	EER2116S	EER2324S	EER2429S	EER2616S	EER2619S	EER2820S	EER2828N	EER2828S	EER2830N
	EER - ⑥	EER - ⑦	EER - ⑧	EER - ⑨	EER - ⑩	EER - ⑪	EER - ⑫	EER - ⑬	EER - ⑭
A	21.40 ±0.50	23.20 ±0.40	24.40 ±0.50	25.50 ±0.50	25.50 ±0.50	28.50 +0.50 -0.40	28.50 +0.60 -0.50	28.50 +0.60 -0.50	28.50 +0.60 -0.50
B	16.20 ±0.30	23.90 ±0.30	28.90 ±0.30	16.00 ±0.40	19.00 ±0.40	20.00 ±0.30	28.00 ±0.40	28.00 ±0.40	30.00 ±0.50
C	14.00 ±0.25	8.20 ±0.20	8.50 ±0.30	7.50 ±0.20	7.50 ±0.20	11.40 ±0.25	11.40 ±0.25	11.40 ±0.25	11.40 ±0.25
D	18.00 ±0.40	19.20 ±0.30	18.60 ±0.60	19.80 min.	19.80 min.	21.40 min.	21.80 min.	21.20 min.	21.80 min.
E	9.00 ±0.20	6.90 ±0.15	8.50 ±0.20	7.50 ±0.15	7.50 ±0.15	9.90 ±0.25	9.90 ±0.25	9.90 ±0.25	9.90 ±0.25
F	11.20 ±0.40	17.60 +0.70 -0	20.20 ±0.40	9.80 ±0.40	12.80 ±0.40	12.80 +0.50 -0	19.30 ±0.50	19.30 ±0.50	22.00 ±0.40
C1(mm ³)	0.625	1.413	1.055	0.949	1.088	0.611	0.758	0.732	0.895
Le(mm)	42.5	56.4	62.3	42.3	48.3	49.5	63.4	63.0	69.3
Ae(mm ²)	68.0	39.9	59.0	44.5	44.3	81.0	83.6	86.0	77.4
Ve(mm ³)	2890	2250	3680	1880	2140	4010	5300	5410	5360
Ac(mm ²)	63.6	37.4	56.7	44.2	44.2	77.0	77.0	77.0	77.0
Aw(mm ²)	51.3	110.0	102.0	62.7	81.9	77.9	120.0	114.0	140.0
W(g/set)	15	11	19	9.7	11	21	28	29	28
Al value	PL-5	3300	1550	2100	2300	2000	3430	2700	2730
	PL-7	3300	1550	2100	2300	2000	3430	2700	2730
	PL-9	3800	1850	2500	2650	2300	4150	3150	3200
	PL-11	3400	1600	2200	2400	2100	3600	2800	2500
Core loss	PL-5	1.74	1.36	2.22	1.15	1.32	2.41	3.25	3.30
	PL-7	1.45	1.13	1.85	0.96	1.10	2.01	2.70	2.75
	PL-9	1.33	0.93	1.51	0.78	0.90	1.65	2.20	2.25
	PL-11	1.33	0.93	1.51	0.78	0.90	1.65	2.20	2.25

EER CORES



Part No.	EER2830S	EER2834N	EER2834S	EER3016S
Type	EER - (b)	EER - (b)	EER - (b)	EER - (b)
Dimensions in mm	A	28.50 $^{+0.60}_{-0.50}$	28.50 $^{+0.60}_{-0.50}$	28.50 $^{+0.60}_{-0.50}$
	B	30.00 ± 0.50	33.80 ± 0.50	33.80 ± 0.50
	C	11.40 ± 0.25	11.40 ± 0.25	11.40 ± 0.25
	D	21.20 min.	21.80 min.	21.20 min.
	E	9.90 ± 0.25	9.90 ± 0.25	9.90 ± 0.25
	F	21.30 ± 0.50	25.00 ± 0.50	25.00 $^{+0.60}_{-0.50}$
Core Set Parameters	C1(mm ⁻¹)	0.794	0.900	0.870
	Le(mm)	66.4	74.8	74.4
	Ae(mm ²)	83.6	83.1	85.4
	Ve(mm ³)	5551	6220	6360
	Ac(mm ²)	76.9	77.0	77.0
	Aw(mm ²)	113.0	155.0	148.0
	W(g/set)	30	32	33
Electrical Characteristics ⁽¹⁾⁽²⁾	PL-5	2600	2400	2400
	PL-7	2600	2400	2400
	PL-9	3000	2700	2700
	PL-11	2700	2500	2500
	PL-5	3.38	3.80	3.85
	PL-7	2.82	3.15	3.20
	PL-9	2.59	2.60	2.65
	PL-11	2.59	2.60	2.65

Note : 1) Core loss

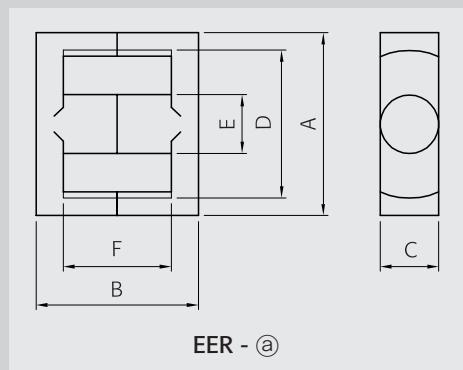
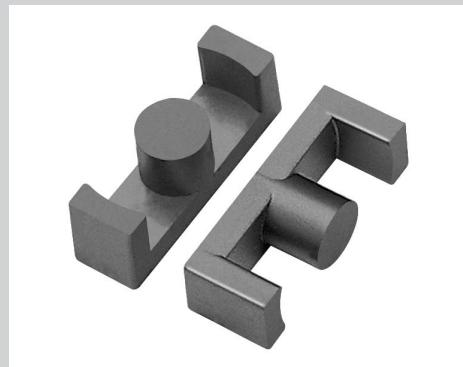
- Unit : Watt max.
- Measuring conditions
- PL-5, PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
- PL-9 : 100 kHz, 200 mT, at 80°C

2) AL value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
- Tolerance: $\pm 25\%$

	EER3019N	EER3022S	EER3024N	EER3032S	EER3124S	EER3335S	EER3426S	EER3435S	EER3526S
	EER - ⑥	EER - ⑧	EER - ⑥	EER - ⑧	EER - ⑥	EER - ⑧	EER - ⑧	EER - ⑧	EER - ⑧
A	30.00 ±0.40	29.80 ±0.80	30.00 ±0.50	29.80 ±0.80	31.00 ±0.50	33.00 ±0.50	34.20 ±0.80	34.20 ±0.80	35.00 ±0.70
B	18.80 ±0.30	21.80 ±0.40	23.80 ±0.40	31.60 ±0.60	23.80 ±0.30	34.60 ±0.60	26.00 ±0.40	34.60 ±0.40	26.60 ±0.40
C	20.30 ±0.30	9.50 ±0.30	20.30 ±0.30	9.50 ±0.30	12.30 ±0.30	13.80 ±0.25	10.80 ±0.30	10.80 ±0.30	11.30 ±0.40
D	25.40 ±0.40	22.70 ±0.70	25.40 ±0.40	22.70 ±0.70	23.60 ±0.50	25.00 ±0.50	26.30 ±0.70	26.30 ±0.70	25.30 min.
E	13.30 ±0.20	9.50 ±0.30	13.30 ±0.30	9.50 ±0.30	11.00 ±0.25	12.50 ±0.25	10.80 ±0.30	10.80 ±0.30	11.30 ±0.30
F	13.20 ±0.40	12.20 ±0.40	18.20 ±0.40	22.00 ±0.60	14.90 ±0.30	25.60 ±0.50	15.60 ±0.60	24.20 ±0.80	16.60 ±0.50
C1(mm ³)	0.344	0.656	0.381	0.927	0.584	0.625	0.629	0.815	0.593
Le(mm)	47.2	51.2	52.2	70.7	57.2	78.3	61.9	79.0	63.5
Ae(mm ²)	137.0	78.0	137.0	76.2	97.9	125.0	98.4	97.0	107.0
Ve(mm ³)	6466	3990	7151	5390	5600	9810	6080	7660	6795
Ac(mm ²)	139.0	70.9	138.9	70.9	95.0	123.0	91.6	91.6	100.3
Aw(mm ²)	80.0	80.5	114.7	145.0	93.9	160.0	120.0	187.0	122.0
W(g/set)	33	21	41	28	29	50	32	39	35
AL value	PL-5	6100	3200	5500	2300	3400	3400	3000	2500
	PL-7	6100	3200	5500	2300	3400	3400	3000	2500
	PL-9	7100	3800	6400	2750	3900	4050	3600	3000
	PL-11	6400	3300	5700	2400	3500	3500	3100	2600
Core loss	PL-5	3.90	2.40	4.72	3.25	3.36	5.90	3.65	4.60
	PL-7	3.25	2.00	3.93	2.70	2.80	4.92	3.05	3.85
	PL-9	2.99	1.65	3.62	2.21	2.58	4.03	2.50	3.15
	PL-11	2.99	1.65	3.62	2.21	2.58	4.03	2.50	3.13

EER CORES



Part No.	EER3530S	EER3531S	EER3534S	EER3538S			
Type	EER - @	EER - @	EER - @	EER - @			
Dimensions in mm	A	35.00 ± 0.70	35.00 ± 0.70	35.00 ± 0.70	35.00 ± 0.70		
	B	30.00 ± 0.40	31.60 ± 0.40	34.00 ± 0.40	38.00 ± 0.50		
	C	11.30 ± 0.40	11.30 ± 0.40	11.30 ± 0.40	11.30 ± 0.40		
	D	25.30 min.	25.30 min.	25.60 min.	25.60 min.		
	E	11.30 ± 0.30	11.30 ± 0.30	11.30 ± 0.30	11.30 ± 0.30		
	F	20.00 ± 0.60	22.20 ± 0.40	22.00 ± 0.40	26.00 ± 0.50		
Core Set Parameters							
	C1(mm⁻¹)	0.655	0.687	0.695	0.767		
	Le(mm)	70.3	73.5	77.1	83.6		
	Ae(mm²)	107.0	107.0	111.0	109.0		
	Ve(mm³)	7550	7865	8557	9091		
	Ac(mm²)	100.3	100.3	100.3	100.3		
	Aw(mm²)	147.0	163.0	169.0	192.4		
Electrical Characteristics ⁽¹⁾⁽²⁾	W(g/set)	39	41	42	49		
	Al value		PL-5	3000	3100	3000	2800
			PL-7	3000	3100	3000	2800
			PL-9	3600	3600	3500	3200
			PL-11	3100	3200	3100	2900
	Core loss		PL-5	4.55	4.80	5.88	5.45
			PL-7	3.78	4.00	4.90	4.64
			PL-9	3.10	3.68	4.51	4.18
			PL-11	3.10	3.68	4.51	4.18

Note : 1) Core loss

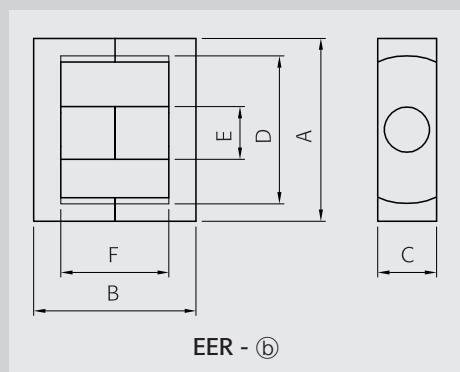
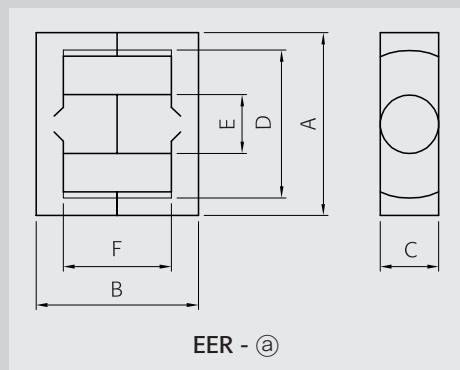
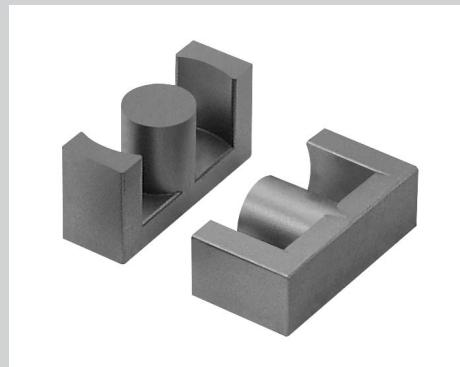
- Unit : Watt max.
- Measuring conditions
- PL-5, PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
- PL-9 : 100 kHz, 200 mT, at 80°C

2) Al value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
- Tolerance: $\pm 25\%$

	EER3540S	EER3541S	EER3542S	EER3543S	EER3544S	EER3638S	EER3934S	EER3936S	EER3940S	
	EER - @									
A	35.00 ±0.70	35.00 ±0.70	35.00 ±0.70	35.00 ±0.70	35.00 ±0.70	36.00 ±0.60	39.10 ±0.90	39.10 ±0.90	39.10 ±0.90	
B	40.60 ±0.50	41.80 ±0.50	42.80 ±0.50	43.30 ±0.50	44.40 ±0.60	38.00 ±0.50	33.60 ±0.40	35.60 ±0.40	39.60 ±0.40	
C	11.30 ±0.40	11.30 ±0.40	11.30 ±0.40	11.30 ±0.40	11.30 ±0.40	11.30 ±0.40	12.50 ±0.30	12.50 ±0.30	12.50 ±0.30	
D	25.60 min.	26.50 min.	30.10 ±0.80	30.10 ±0.80	30.10 ±0.80					
E	11.30 ±0.30	11.30 ±0.30	11.30 ±0.30	11.30 ±0.30	11.30 ±0.30	11.30 ±0.30	12.50 ±0.30	12.50 ±0.30	12.50 ±0.30	
F	29.60 ±0.80	29.80 ±0.60	30.80 ±0.60	31.30 ±0.50	32.00 ±0.60	26.00 ±0.50	23.20 ±0.80	25.20 ±0.80	29.20 ±0.80	
C1(mm ³)	0.813	0.831	0.850	0.852	0.875	0.792	0.642	0.676	0.741	
Le(mm)	88.6	91.0	93.0	94.6	95.4	83.9	80.3	84.6	92.6	
Ae(mm ²)	109.0	109.0	109.0	111.0	109.0	106.0	125.0	125.0	124.0	
Ve(mm ³)	9657	9960	10160	10501	10399	8893	10038	10570	11560	
Ac(mm ²)	100.3	100.3	100.3	100.3	100.3	100.3	122.7	123.0	123.0	
Aw(mm ²)	219.0	223.0	230.0	235.0	236.8	204.1	204.0	221.0	256.0	
W(g/set)	50	52	53	53	54	49	52	54	58	
Al value	PL-5	2600	2600	2500	2500	2400	2700	2800	3100	2900
	PL-7	2600	2600	2500	2500	2400	2700	2800	3100	2900
	PL-9	3000	3050	3000	2900	2800	3100	3200	3650	3400
	PL-11	2700	2700	2600	2600	2500	2800	2900	3200	3000
Core loss	PL-5	5.88	6.00	6.10	6.40	6.24	5.63	6.10	6.35	7.00
	PL-7	4.90	5.00	5.10	5.44	5.30	4.69	5.19	5.30	5.80
	PL-9	4.51	4.10	4.20	4.91	4.78	4.31	4.68	4.35	4.75
	PL-11	4.51	4.10	4.20	4.91	4.78	4.31	4.68	4.35	4.75

EER CORES



Part No.	EER3942S	EER3944S	EER4042S	EER4045S
Type	EER - (a)	EER - (a)	EER - (b)	EER - (a)
Dimensions in mm	A	39.10 ± 0.90	39.10 ± 0.90	40.00 $^{+0.80}_{-0.50}$
	B	42.00 ± 0.40	44.60 ± 0.40	42.60 ± 0.40
	C	12.50 ± 0.30	12.50 ± 0.30	15.00 ± 0.20
	D	30.10 ± 0.80	30.10 ± 0.80	30.70 min.
	E	12.50 ± 0.30	12.50 ± 0.30	14.00 ± 0.25
	F	31.60 ± 0.80	34.20 ± 0.80	30.60 ± 0.40
Core Set Parameters	C1(mm ⁻¹)	0.780	0.818	0.609
	Le(mm)	97.4	102.2	96.3
	Ae(mm ²)	124.0	125.0	158.0
	Ve(mm ³)	12150	12780	15230
	Ac(mm ²)	123.0	122.7	154.0
	Aw(mm ²)	278.0	301.0	265.0
	W(g/set)	61	66	79
Electrical Characteristics ⁽¹⁾⁽²⁾	AL value	PL-5	2700	2600
		PL-7	2700	2600
		PL-9	3200	3000
		PL-11	2800	2700
	Core loss	PL-5	7.30	7.70
		PL-7	6.08	6.55
		PL-9	5.00	5.90
		PL-11	5.00	5.90

Note : 1) Core loss

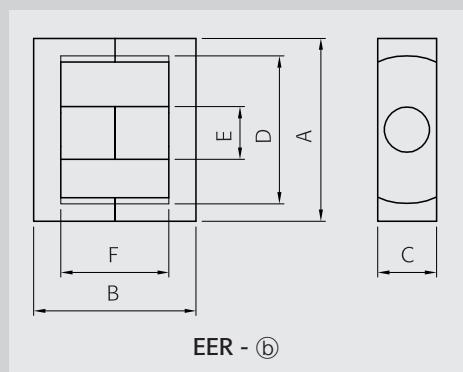
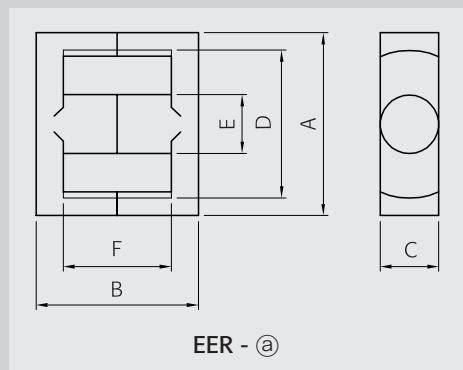
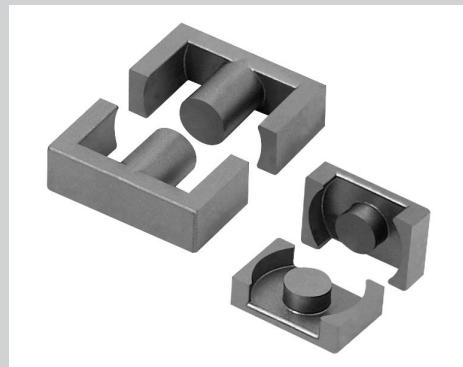
- Unit : Watt max.
- Measuring conditions
PL-5, PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
PL-9 : 100 kHz, 200 mT, at 80°C

2) AL value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
- Tolerance: $\pm 25\%$

	EER4045SD	EER4214S	EER4232S	EER4242B	EER4242KF	EER4242S	EER4242SF	EER4243S	EER4244S
	EER - (b)	EER - (@)	EER - (b)	EER - (@)	EER - (b)	EER - (b)	EER - (b)	EER - (@)	EER - (b)
A	40.00 ^{+0.80} _{-0.50}	42.15 ± 0.85	42.00 ^{+0.80} _{-0.50}	42.00 ± 0.60	42.65 ± 0.65	42.00 ^{+0.80} _{-0.50}	42.00 ^{+0.80} _{-0.50}	42.00 ± 0.60	42.00 ^{+0.80} _{-0.50}
B	45.00 ± 0.40	43.20 ± 0.40	32.40 ± 0.40	42.80 ± 0.60	43.40 ± 0.40	42.40 ± 0.40	43.40 ± 0.40	43.80 ± 0.60	44.00 ± 0.40
C	15.00 ± 0.20	14.70 ± 0.30	19.60 ± 0.40	15.20 ± 0.30	20.00 ⁺⁰ _{-0.80}	20.00 ⁺⁰ _{-0.80}	20.00 ⁺⁰ _{-0.80}	15.20 ± 0.30	19.40 ± 0.30
D	30.70 min.	31.00 ± 0.60	32.30 ± 0.50	31.00 ± 0.60	32.80 ± 0.50	32.30 ± 0.50	32.30 ± 0.50	31.00 ± 0.60	32.60 ± 0.50
E	14.00 ± 0.25	14.70 ± 0.30	17.30 ± 0.25	15.20 ± 0.30	17.30 ± 0.25	17.30 ± 0.25	17.30 ± 0.25	15.20 ± 0.30	17.00 ± 0.25
F	33.00 ± 0.40	31.90 ± 0.70	20.50 ± 0.50	30.80 ± 0.80	31.20 ± 0.50	30.00 ^{+1.0} _{-0.5}	31.50 ± 0.50	31.80 ± 0.60	32.20 ± 0.60
C1(mm ³)	0.641	0.572	0.349	0.528	0.415	0.406	0.416	0.540	0.442
Le(mm)	101.0	98.8	81.4	96.9	98.0	95.1	97.0	98.3	100.0
Ae(mm ²)	157.0	172.0	233.0	183.0	236.0	234.0	233.0	183.0	226.0
Ve(mm ³)	15950	17090	18966	17790	23128	22280	22601	17990	22600
Ac(mm ²)	154.0	170.0	234.9	181.0	234.9	235.0	234.9	181.5	226.9
Aw(mm ²)	286.0	259.0	158.9	243.0	242.0	228.0	244.1	259.2	325.6
W(g/set)	82	87	98	91	119	115	115	93	116
Al value	PL-5	3400	3800	6300	4000	5000	5000	4000	4800
	PL-7	3400	3800	6300	4000	5000	5000	4000	4800
	PL-9	3950	4500	7300	4700	5800	5800	4700	5500
	PL-11	3500	4000	6600	4200	5200	5200	4200	5000
Core loss	PL-5	9.80	13.40	11.40	10.70	13.92	13.40	14.88	10.80
	PL-7	8.10	8.60	9.50	8.90	11.60	11.10	12.40	9.00
	PL-9	6.60	7.10	8.74	7.30	10.67	9.20	11.41	8.28
	PL-11	6.60	7.10	8.74	7.30	10.67	9.20	11.41	10.40

EER CORES



Part No.	EER4245S	EER4245W	EER4249S	EER4445S
Type	EER - (a)	EER - (b)	EER - (b)	EER - (a)
Dimensions in mm	A	42.00 \pm 0.50	42.00 \pm 0.60	42.00 \pm 0.80
	B	44.60 \pm 0.60	44.80 \pm 0.40	49.40 \pm 0.40
	C	15.20 \pm 0.30	15.50 \pm 0.30	19.60 \pm 0.40
	D	31.00 \pm 0.50	29.40 min.	32.30 \pm 0.80
	E	15.20 \pm 0.30	15.50 \pm 0.30	17.30 \pm 0.35
	F	32.60 \pm 0.60	30.80 \pm 0.60	37.60 \pm 0.60
Core Set Parameters	C1(mm ⁻¹)	0.547	0.483	0.469
	Le(mm)	100.0	97.3	109.0
	Ae(mm ²)	183.0	201.0	232.0
	Ve(mm ³)	18450	19620	25400
	Ac(mm ²)	181.0	189.0	235.0
	Aw(mm ²)	257.0	223.0	282.0
	W(g/set)	94	102	130
Electrical Characteristics ⁽¹⁾⁽²⁾	PL-5	3900	4400	4300
	PL-7	3900	4400	4350
	PL-9	4600	5150	5100
	PL-11	4100	4600	4500
	PL-5	11.10	11.80	15.20
	PL-7	9.25	9.85	12.70
	PL-9	7.60	8.05	10.40
	PL-11	7.60	8.05	7.35

Note : 1) Core loss

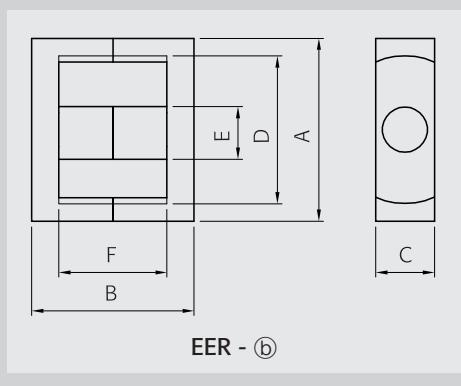
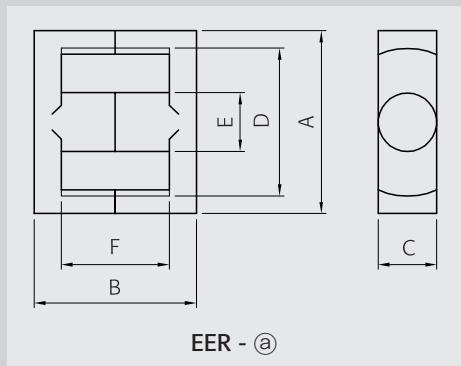
- Unit : Watt max.
 - Measuring conditions
- | | |
|-------------------|-----------------------------|
| PL-5, PL-7, PL-11 | : 100 kHz, 200 mT, at 100°C |
| PL-9 | : 100 kHz, 200 mT, at 80°C |

2) AL value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
- Tolerance: \pm 25%

	EER4535S	EER4836S	EER4936S	EER4942S	EER4943S	EER4950S	EER4954S	EER5345S	EER5455S	
	EER - ①	EER - ②	EER - ③	EER - ④	EER - ⑤	EER - ⑥	EER - ⑦	EER - ⑧	EER - ⑨	
A	45.00 \pm 1.00	48.00 \pm 1.00	49.00 $^{+0.70}_{-0.50}$	49.00 $^{+0.70}_{-0.50}$	49.00 $^{+0.70}_{-0.50}$	48.70 \pm 1.00	49.00 \pm 0.80	53.20 $^{+0.80}_{-0.50}$	54.50 \pm 1.30	
B	35.00 \pm 0.40	36.00 \pm 0.40	36.00 \pm 0.40	42.00 $^{+1.00}_{-0.20}$	43.10 \pm 0.60	49.40 \pm 0.40	54.00 \pm 0.40	46.40 \pm 0.60	55.20 \pm 0.40	
C	17.60 \pm 0.40	17.60 \pm 0.40	17.20 $^{+0.20}_{-0.40}$	17.20 $^{+0.20}_{-0.40}$	17.20 $^{+0.20}_{-0.40}$	16.30 \pm 0.40	17.20 \pm 0.30	21.50 \pm 0.30	18.90 \pm 0.40	
D	33.80 \pm 0.80	36.80 \pm 0.80	36.60 min.	36.60 min.	36.60 min.	37.00 \pm 0.90	36.40 min.	38.70 min.	41.20 \pm 1.10	
E	17.60 \pm 0.40	17.60 \pm 0.40	17.20 $^{+0.20}_{-0.40}$	17.20 $^{+0.20}_{-0.40}$	17.20 $^{+0.20}_{-0.40}$	16.30 \pm 0.40	17.20 \pm 0.25	20.00 $^{+0.20}_{-0.30}$	18.90 \pm 0.40	
F	21.90 \pm 0.50	22.40 $^{+0.50}_{-0}$	22.80 \pm 0.40	28.80 $^{+0.80}_{-0}$	29.90 \pm 0.40	36.20 \pm 0.80	37.00 \pm 0.40	32.60 \pm 0.60	40.40 \pm 0.80	
C1(mm ³)	0.349	0.372	0.384	0.440	0.448	0.542	0.487	0.338	0.454	
Le(mm)	81.2	86.3	87.2	100.0	101.7	114.0	118.0	108.0	127.0	
Ae(mm ²)	232.0	231.0	227.0	227.0	227.0	211.0	241.0	318.0	279.0	
Ve(mm ³)	18880	19990	19800	22770	23086	24140	28460	34350	35620	
Ac(mm ²)	243.0	243.0	230.0	230.0	229.5	209.0	232.0	313.0	281.0	
Aw(mm ²)	177.0	219.0	195.0	293.0	297.1	374.0	370.0	316.0	450.0	
W(g/set)	99	103	102	117	119	123	150	178	181	
Al value	PL-5	5800	5600	5500	5000	4700	4000	4500	6200	4800
	PL-7	5800	5600	5500	5000	4700	4000	4500	6200	4800
	PL-9	6750	6500	6400	5800	5500	4750	5300	7300	5700
	PL-11	6000	5800	5700	5200	4900	4200	4700	6500	5000
Core loss	PL-5	11.40	11.96	11.88	13.70	13.85	14.50	17.10	21.00	22.00
	PL-7	9.50	9.97	10.10	11.40	11.77	12.10	14.20	17.20	17.72
	PL-9	7.75	9.17	9.11	9.35	10.62	9.90	11.70	15.50	16.00
	PL-11	7.75	9.17	9.11	9.35	10.62	9.90	11.70	15.50	16.00

EER CORES



Part No.		EER5557S	EER6062S
Type		EER - (b)	EER - (a)
Dimensions in mm	A	55.00 \pm 1.00	59.80 \pm 1.30
	B	56.80 \pm 0.80	62.00 \pm 0.40
	C	24.70 \pm 0.40	21.65 \pm 0.45
	D	41.70 min.	44.70 \pm 1.10
	E	20.60 \pm 0.30	21.65 \pm 0.45
	F	38.00 \pm 0.60	45.00 \pm 0.80

Core Set Parameters	C1(mm ⁻¹)	0.380	0.383
	Le(mm)	127.0	141.0
	Ae(mm ²)	334.0	367.0
	Ve(mm ³)	42400	51630
	Ac(mm ²)	333.0	368.0
	Aw(mm ²)	410.0	518.0
	W(g/set)	221	264

Electrical Characteristics ⁽¹⁾⁽²⁾	AL value	PL-5	5900	5400
	Core loss	PL-7	5900	5400
		PL-9	6950	6500
		PL-11	6200	5600
		PL-5	26.00	32.00
Core loss		PL-7	21.50	26.50
		PL-9	19.50	23.50
		PL-11	19.50	23.50

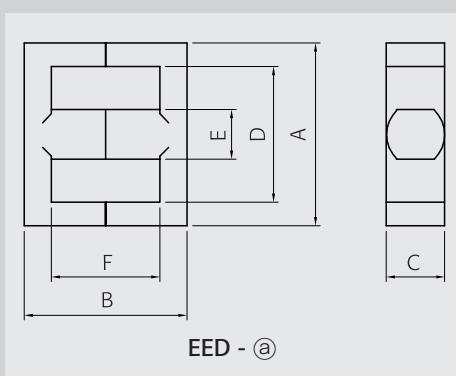
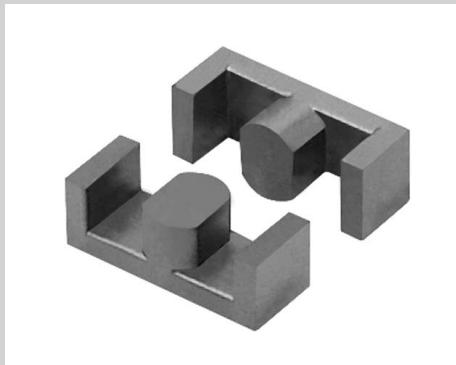
Note : 1) Core loss

- Unit : Watt max.
 - Measuring conditions
- | | |
|-------------------|-----------------------------|
| PL-5, PL-7, PL-11 | : 100 kHz, 200 mT, at 100°C |
| PL-9 | : 100 kHz, 200 mT, at 80°C |

2) AL value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
- Tolerance: \pm 25%

EED CORES



Part No.		EED2818S	EED2820S	EED2920S	EED2924S
Type		EED - @	EED - @	EED - @	EED - @
Dimensions in mm	A	28.00 ± 0.50	28.00 ± 0.50	29.30 ± 0.70	29.30 ± 0.70
	B	18.60 ± 0.30	20.40 ± 0.30	20.40 ± 0.50	24.40 ± 0.50
	C	11.90 ± 0.15	11.90 ± 0.15	11.60 ± 0.20	11.60 ± 0.20
	D	20.30 min.	20.30 min.	22.10 $^{+0.70}_{-0.50}$	22.10 $^{+0.70}_{-0.50}$
	E	8.50 ± 0.15	8.50 ± 0.15	8.40 ± 0.20	8.40 ± 0.20
	F	11.40 ± 0.30	13.20 ± 0.30	13.20 ± 0.40	17.20 ± 0.40

Core Set Parameters	C1(mm ⁻¹)	0.545	0.586	0.617	0.712
	Le(mm)	46.9	50.5	51.9	59.9
	Ae(mm ²)	86.1	86.1	84.0	84.1
	Ve(mm ³)	4038	4350	4360	5030
	Ac(mm ²)	101.2	101.2	97.4	97.4
	Aw(mm ²)	75.3	81.1	90.7	118.0
	W(g/set)	20	23	23	26

Electrical Characteristics ⁽¹⁾⁽²⁾	AL value	PL-5	3700	3000	3200	2800
		PL-7	3700	3000	3200	2800
		PL-9	4300	3400	3650	3200
		PL-11	3900	3100	3300	2900
	Core loss	PL-5	2.60	2.65	2.65	3.05
		PL-7	2.21	2.20	2.20	2.55
		PL-9	1.99	1.80	1.80	2.10
		PL-11	1.99	1.80	1.80	2.10

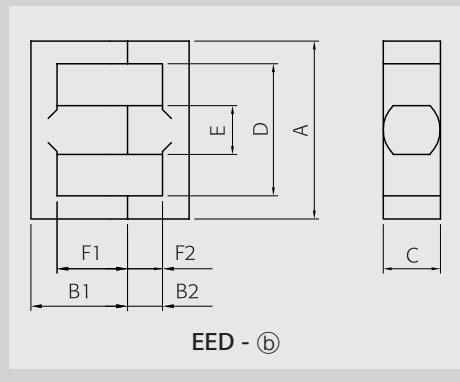
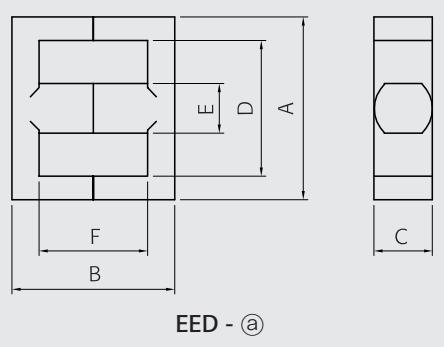
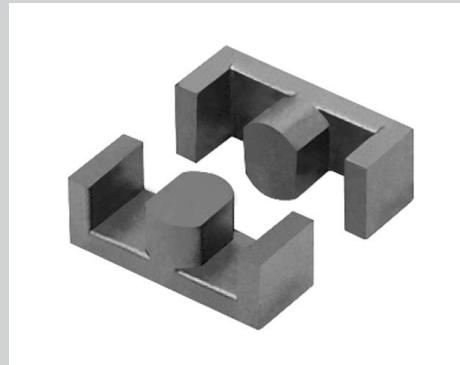
Note : 1) Core loss

- Unit : Watt max.
- Measuring conditions
- PL-5, PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
- PL-9 : 100 kHz, 200 mT, at 80°C

2) AL value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
- Tolerance: $\pm 25\%$

EED CORES



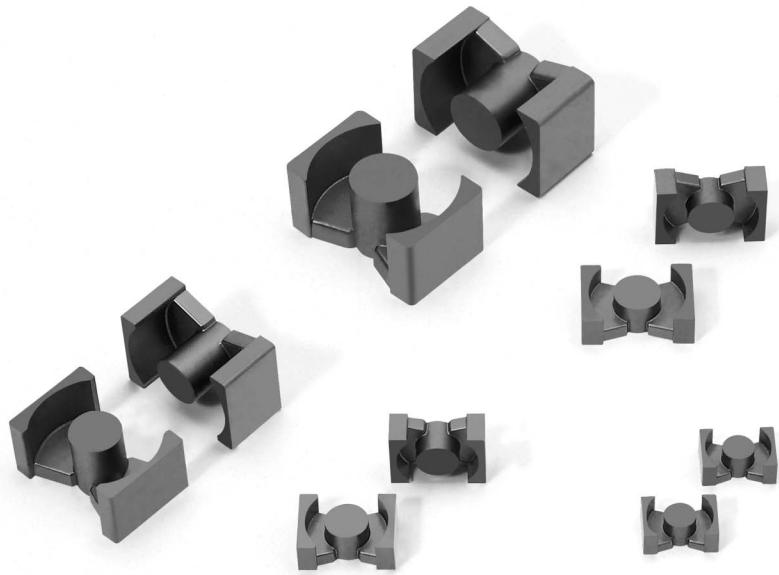
Part No.	EED2929S	EED4244S
Type	EED - (a)	EED - (b)
Dimensions in mm	A 29.30 ± 0.70 B 29.20 ± 0.50 B1: 28.50 ± 0.20 B2: 15.50 ± 0.20 C 11.60 ± 0.20 D 22.10 $^{+0.70}_{-0.50}$ E 8.40 ± 0.20 F 22.00 ± 0.40 F1: 21.50 ± 0.20 F1: 8.50 ± 0.20	A 29.30 ± 0.70 B 42.00 ± 0.70 C 13.50 ± 0.30 D 29.00 min. E 13.50 ± 0.30 F 22.00 ± 0.40 F1: 21.50 ± 0.20 F1: 8.50 ± 0.20
Core Set Parameters	C1(mm⁻¹) 0.826 Le(mm) 69.5 Ae(mm²) 84.1 Ve(mm³) 5850 Ac(mm²) 97.4 Aw(mm²) 151.0 W(g/set) 30	C1(mm⁻¹) 0.578 Le(mm) 95.4 Ae(mm²) 165.0 Ve(mm³) 15741 Ac(mm²) 182.3 Aw(mm²) 226.8 W(g/set) 85
Electrical Characteristics ⁽¹⁾⁽²⁾	PL-5 2100 PL-7 2100 PL-9 2400 PL-11 2200 PL-5 3.55 PL-7 2.95 PL-9 2.40 PL-11 2.40	PL-5 3700 PL-7 3700 PL-9 4300 PL-11 3900 PL-5 10.20 PL-7 8.50 PL-9 7.82 PL-11 7.82

Note : 1) Core loss

- Unit : Watt max.
- Measuring conditions
- PL-5, PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
- PL-9 : 100 kHz, 200 mT, at 80°C

2) AL value

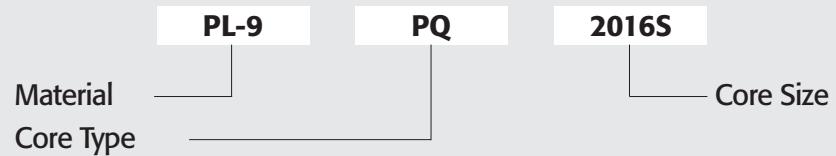
- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
- Tolerance: $\pm 25\%$



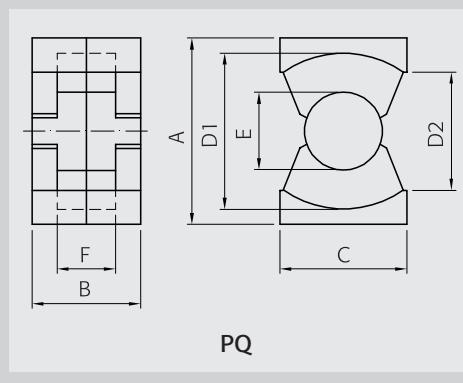
PQ CORES

PQ20~PQ50

Ordering Code System



PQ CORES



Part No.	PQ2016S	PQ2020S	PQ2620S	PQ2625S	
Type	PQ	PQ	PQ	PQ	
Dimensions in mm	A	20.50 ± 0.40	20.50 ± 0.40	26.50 ± 0.45	26.50 ± 0.45
	B	16.20 ± 0.20	20.20 ± 0.20	20.15 ± 0.25	24.75 ± 0.25
	C	14.00 ± 0.40	14.00 ± 0.40	19.00 ± 0.45	19.00 ± 0.45
	D1	18.00 ± 0.40	18.00 ± 0.40	22.50 ± 0.45	22.50 ± 0.45
	D2	12.00 min.	12.00 min.	15.50 min.	15.50 min.
	E	8.80 ± 0.20	8.80 ± 0.20	12.00 ± 0.20	12.00 ± 0.20
	F	10.30 ± 0.20	14.30 ± 0.30	11.50 ± 0.30	16.10 ± 0.30
Core Set Parameters	C1(mm⁻¹)	0.605	0.738	0.391	0.472
	Le(mm)	37.4	45.4	46.3	55.5
	Ae(mm²)	62.0	62.0	119.0	118.0
	Ve(mm³)	2310	2790	5490	6530
	Ac(mm²)	61.0	61.0	113.0	113.0
	Aw(mm²)	47.4	65.8	60.4	84.5
	W(g/set)	13	15	31	36

Electrical Characteristics ⁽¹⁾⁽²⁾	Al value	PL-7	3500	3000	5500	4500
	PL-9	4400	3600	6800	5600	
	PL-11	3700	3100	5700	4700	
	PL-F1	2600	2300	4000	3350	
	Core loss	PL-7	1.16	1.40	2.40	3.30
	PL-9	0.95	1.15	2.25	2.70	
	PL-11	0.95	1.15	2.25	2.70	
	PL-F1	0.28	0.33	0.72	0.79	

Note : 1) Core loss

- Unit : Watt max.
- Measuring conditions
PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
PL-9 : 100 kHz, 200 mT, at 80°C
PL-F1 : 500 kHz, 50mT, at 80°C

2) Al value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100Ts at 23°C
- Tolerance: $\pm 25\%$

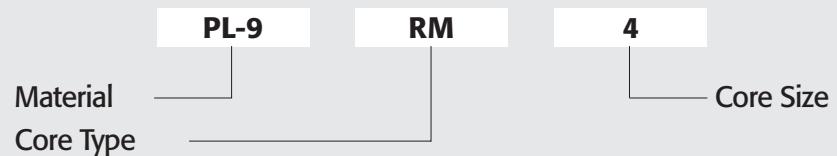
	PQ3019S	PQ3030S	PQ3220S	PQ3230S	PQ3535S	PQ4040S	PQ5050S
	PQ						
A	30.00 ± 0.50	30.00 ± 0.50	32.00 ± 0.50	32.00 ± 0.50	35.10 ± 0.60	40.50 ± 0.90	50.00 ± 0.70
B	19.00 ± 0.20	30.00 ± 0.20	20.55 ± 0.25	30.35 ± 0.25	34.75 ± 0.25	39.75 ± 0.25	49.95 ± 0.25
C	20.50 ± 0.30	20.50 ± 0.30	22.00 ± 0.50	22.00 ± 0.50	26.00 ± 0.50	28.00 ± 0.60	32.00 ± 0.60
D1	25.25 ± 0.35	25.25 ± 0.35	27.50 ± 0.50	27.50 ± 0.50	32.00 ± 0.50	37.00 ± 0.60	44.00 ± 0.70
D2	18.50 min.	18.50 min.	19.00 min.	19.00 min.	23.50 min.	28.00 min.	31.50 min.
E	13.30 ± 0.30	13.30 ± 0.30	13.45 ± 0.25	13.45 ± 0.25	14.35 ± 0.25	14.90 ± 0.30	20.00 ± 0.35
F	13.00 ± 0.20	24.00 ± 0.30	11.50 ± 0.30	21.30 ± 0.30	25.00 ± 0.30	29.50 ± 0.30	36.10 ± 0.30
C1(mm ⁴)	0.420	0.540	0.326	0.464	0.448	0.508	0.346
Le(mm)	49.8	70.9	55.5	74.6	87.9	101.9	113.0
Ae(mm ²)	117.9	131.4	170.0	161.0	196.0	201.0	328.0
Ve(mm ³)	5866	9316	9420	11970	17260	20450	37240
Ac(mm ²)	138.9	138.9	142.0	142.0	162.0	174.0	314.0
Aw(mm ²)	77.7	143.4	80.8	149.6	220.6	326.0	433.0
W(g/set)	32	51	42	55	73	95	195
Al value	PL-7	5000	3900	6700	4750	4500	4300
	PL-9	6300	4900	8200	5830	5700	5200
	PL-11	5200	4100	7000	5000	4700	4500
	PL-F1	3800	3000	4850	3500	3700	3100
Core loss	PL-7	3.05	4.70	4.70	6.00	8.70	10.30
	PL-9	2.80	4.30	3.90	4.90	7.10	8.40
	PL-11	2.80	4.30	3.90	4.90	7.10	8.40
	PL-F1	0.70	1.12	1.13	1.44	2.30	2.45



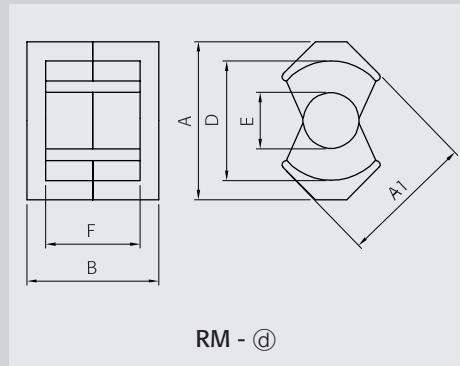
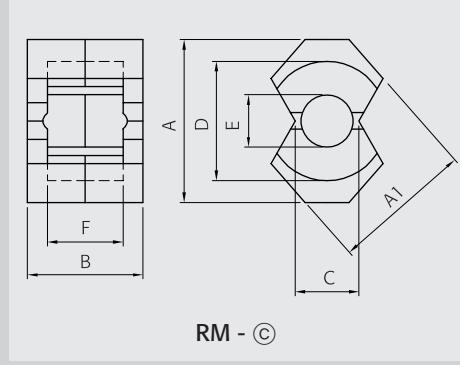
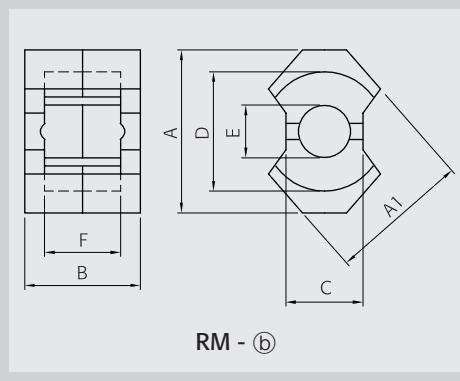
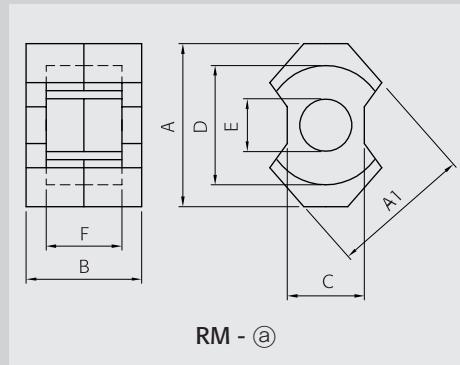
RM CORES

RM4~RM14

Ordering Code System



RM CORES



Part No.	RM4	RM5	RM5H	RM6	
Type	RM - @	RM - @	RM - @	RM - @	
Dimensions in mm	A	10.80 ± 0.20	14.30 ± 0.30	14.30 ± 0.30	17.60 ± 0.30
	A1	9.60 ± 0.20	12.05 ± 0.25	12.05 ± 0.25	14.40 ± 0.30
	B	10.40 ± 0.10	10.40 ± 0.10	10.40 ± 0.10	12.40 ± 0.10
	C	4.50 ± 0.10	6.60 ± 0.20	6.60 ± 0.20	8.00 ± 0.20
	D	8.15 ± 0.20	10.40 ± 0.20	10.40 ± 0.20	12.65 ± 0.25
	E	3.80 ± 0.10	4.80 ± 0.10	4.80 ± 0.10	6.30 ± 0.10
	F	7.20 ± 0.20	6.50 ± 0.20	6.50 ± 0.20	8.20 ± 0.20
Hole				2.05 ± 0.05	
Core Set Parameters	C1(mm⁻¹)	1.700	0.930	1.000	0.780
	Le(mm)	22.0	22.1	20.8	28.6
	Ae(mm²)	13.0	23.8	20.8	36.6
	Ve(mm³)	286	526	430	1050
	Ac(mm²)	11.3	18.0	14.7	31.1
	Aw(mm²)	15.7	18.2	18.2	26.0
	W(g/set)	1.7	3.0	2.9	5.3
Electrical Characteristics ⁽¹⁾⁽²⁾	PL-7	1070	2000	1800	2400
	PL-9	1200	2500	2250	3000
	PL-11	1100	2100	1900	2500
	SM-23T	1030	1900	1750	2300
	SM-43T	2000	3800	3500	4500
	SM-30B	1200	2500	2200	3000
	SM-70S	3300	6000	5600	7200
	SM-100	3700	6700	6900	9000
	PL-7	0.16	0.27	0.23	0.52
	PL-9	0.13	0.22	0.19	0.43
Core loss	PL-11	0.13	0.22	0.19	0.43

Note : 1) Core loss

- Unit : Watt max.
- Measuring conditions
PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
PL-9 : 100 kHz, 200 mT, at 80°C

2) AL value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
Tolerance: $\pm 25\%$ (SM-100 Mirror-grind : $\pm 30\%$)

	RM6H	RM7	RM8	RM8H	RM10	RM12	RM14	
	RM - ⓒ	RM - ⓔ	RM - ⓕ	RM - ⓖ	RM - ⓗ	RM - ⓘ	RM - ⓙ	
A	17.60 ± 0.30	19.90 ± 0.40	22.75 ± 0.45	22.75 ± 0.45	27.85 ± 0.65	36.85 ± 0.75	41.60 ± 0.60	
A1	14.40 ± 0.30	16.85 ± 0.35	19.30 ± 0.40	19.30 ± 0.40	24.15 ± 0.10	29.20 ± 0.10	34.15 ± 0.65	
B	12.40 ± 0.10	13.40 ± 0.10	16.40 ± 0.10	16.40 ± 0.10	18.60 ± 0.10	24.50 ± 0.10	30.10 ± 0.10	
C	8.00 ± 0.20		10.80 ± 0.20	10.80 ± 0.20	13.25 ± 0.25	15.85 ± 0.25	18.70 ± 0.30	
D	12.65 ± 0.25	14.75 $^{+0.65}_{-0}$	17.30 ± 0.30	17.30 ± 0.30	21.65 ± 0.45	25.45 ± 0.55	29.50 ± 0.50	
E	6.30 ± 0.10	7.10 ± 0.15	8.40 ± 0.15	8.40 ± 0.15	10.70 ± 0.20	12.60 ± 0.20	14.75 ± 0.25	
F	8.20 ± 0.20	8.65 ± 0.25	11.00 ± 0.20	11.00 ± 0.20	12.70 ± 0.30	17.10 ± 0.30	21.10 ± 0.30	
Hole	3.05 ± 0.05			4.50 ± 0.10				
C1(mm³)	0.860	0.700	0.590	0.670	0.450	0.390	0.350	
Le(mm)	26.9	30.4	38.0	35.1	44.0	57.0	70.0	
Ae(mm²)	31.3	43.0	64.0	52.0	98.0	146.0	200.0	
Ve(mm³)	840	1340	2430	1840	4310	8340	14000	
Ac(mm²)	23.8	39.6	55.3	39.4	89.8	124.0	170.0	
Aw(mm²)	26.0	34.5	48.9	48.9	69.5	110.0	155.0	
W(g/set)	4.9	7.9	12	11	22	42	70	
Al value	PL-7	2300	3095	3300	3000	4200	5300	6000
	PL-9	2900	3800	4100	3800	5240	6600	7500
	PL-11	2400	3200	3400	3100	4400	5500	6300
	SM-23T	2200	3000	3150	2880	4000	5070	5750
	SM-43T	4100	5000	6000	5300	7800	9000	10000
	SM-30B	2900	3500	4100	3800	5240	6600	7500
	SM-70S	6500	8100	9587	8443	13400	13000	14800
	SM-100	8000	10500	13000	10000	15000	17000	19700
Core loss	PL-7	0.42	0.77	1.20	0.93	2.20	4.20	7.00
	PL-9	0.35	0.67	1.00	0.76	1.77	3.42	5.70
	PL-11	0.35	0.67	1.00	0.76	1.77	3.42	5.70



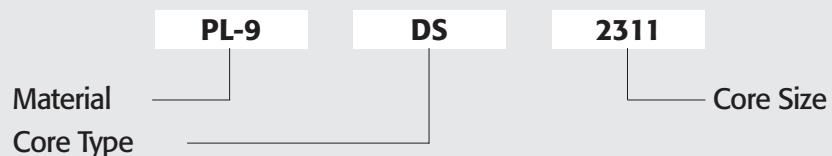
POT CORES

DS23~DS40

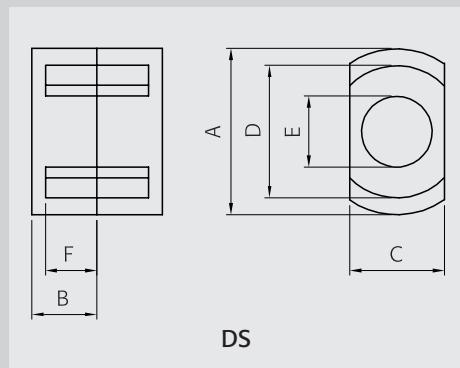
PC09~PC36

RS18~RS30

Ordering Code System



DS CORES



Part No.	DS2311	DS2318	DS2511	DS2611	
Type	DS	DS	DS	DS	
Dimensions in mm	A	22.90 \pm 0.45	22.90 \pm 0.45	25.00 \pm 0.40	25.40 \pm 0.50
	B	5.55 \pm 0.15	9.00 \pm 0.15	5.54 \pm 0.12	5.54 \pm 0.127
	C	15.20 \pm 0.25	15.20 \pm 0.25	15.24 \pm 0.20	15.24 \pm 0.20
	D	18.25 \pm 0.30	18.25 \pm 0.30	20.83 \pm 0.30	20.96 \pm 0.25
	E	9.75 \pm 0.15	9.75 \pm 0.15	8.89 \pm 0.15	8.89 \pm 0.15
	F	3.75 \pm 0.15	7.10 \pm 0.15	3.76 \pm 0.12	3.76 \pm 0.127

Core Set Parameters	C1(mm ⁻¹)	0.52	0.69	0.544	0.54
	Le(mm)	26.8	40	30.26	30.1
	Ae(mm²)	51.2	58.1	55.65	55.8
	Ve(mm³)	1370	2320	1684	1680
	Ac(mm²)	37.8	40.7	62.0	62.0
	Aw(mm²)	31.9	60.4	44.9	45.4
	W(g/set)	8.0	13	9.8	9.9

Electrical Characteristics ⁽¹⁾⁽²⁾	PL-7	4100	3150	3880	3900
	PL-9	5125	3940	4850	4875
	PL-11	4100	3150	3880	3900
	SM-23T	3900	3000	3700	3700
	ST-30B	5100	3900	4900	4900
	SM-70S	11800	8900	11300	11300
	SM-100	14000	12300	15000	15000
	Core loss	PL-7	0.70	1.16	0.84
Core loss	PL-9	0.62	1.05	0.76	0.76
	PL-11	0.62	1.05	0.76	0.76

Note : 1) Core loss

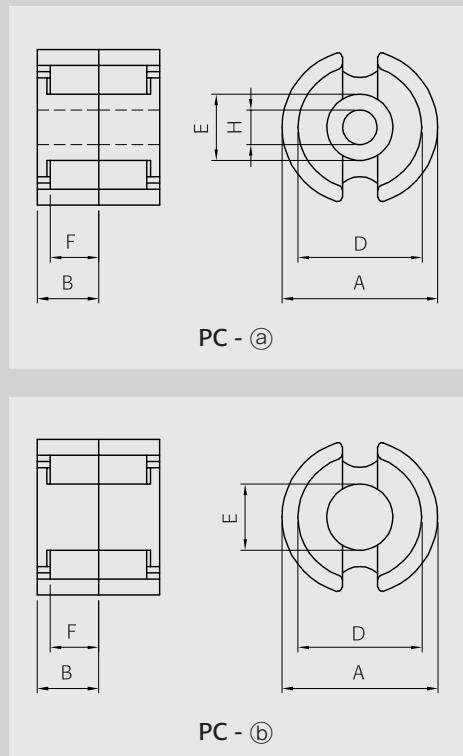
- Unit : Watt max.
- Measuring conditions
- PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
- PL-9 : 100 kHz, 200 mT, at 80°C

2) AL value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
- Tolerance: $\pm 25\%$ (SM-100 Mirror-grind : $\pm 30\%$)

	DS3019	DS3119W	DS3314W	DS3319	DS3324	DS4025	DS4026	DS4028
	DS							
A	30.00 ± 0.50	31.20 ± 0.30	33.20 ± 0.50	33.20 ± 0.50	33.20 ± 0.50	39.80 ± 0.50	39.80 ± 0.50	39.80 ± 0.50
B	9.40 ± 0.15	9.45 ± 0.15	7.10 ± 0.15	9.40 ± 0.15	12.05 ± 0.15	12.50 ± 0.20	13.50 ± 0.20	14.00 ± 0.20
C	20.30 ± 0.30	20.30 ± 0.30	23.70 ± 0.30	23.70 ± 0.30	23.70 ± 0.30	28.30 ± 0.35	28.30 ± 0.35	28.30 ± 0.35
D	25.40 ± 0.40	25.40 ± 0.35	26.60 ± 0.40	26.60 ± 0.40	26.60 ± 0.40	33.20 ± 0.50	33.20 ± 0.50	33.20 ± 0.50
E	13.30 ± 0.20	13.20 ± 0.15	13.50 ± 0.20	13.50 ± 0.20	13.50 ± 0.20	16.00 ± 0.25	16.00 ± 0.25	16.00 ± 0.25
F	6.60 ± 0.15	6.45 ± 0.20	4.30 ± 0.15	6.50 ± 0.15	9.25 ± 0.15	8.90 ± 0.20	9.90 ± 0.20	10.40 ± 0.20
C1(mm ⁻¹)	0.395	0.390	0.290	0.350	0.420	0.330	0.340	0.330
Le(mm)	46.2	50.2	42.6	51.4	61.9	67.3	71.3	67.3
Ae(mm ²)	117.0	127.5	145.1	147.4	147.4	205.0	205.0	205.0
Ve(mm ³)	5410	6396	6178	7576	9124	13797	14617	15027
Ac(mm ²)	139.0	136.9	143.0	143.0	143.0	201.0	201.0	201.0
Aw(mm ²)	80.0	78.7	56.3	85.2	121.0	153.0	170.0	170.0
W(g/set)	27	26	24	30	36	53	56	58
PL-7	5350	5400	7300	6000	5200	6400	6000	5920
PL-9	6680	6800	9000	7450	6500	8000	7500	7400
PL-11	5350	5400	7300	6000	5200	6400	6000	5920
SM-23T	5100							
ST-30B	6700							
SM-70S	15500							
SM-100	22500							
Core loss	PL-7	2.70	3.20	3.20	3.20	4.75	7.20	7.60
	PL-9	2.44	2.95	2.90	3.41	4.20	6.20	6.90
	PL-11	2.44	2.95	2.90	3.41	4.20	6.20	7.10

PC CORES



Part No.	PC0506S	PC0909S	PC1107H	PC1305H
Type	PC - ④	PC - ④	PC - @	PC - @
Dimensions in mm	A	5.35 ± 0.15	8.70 ± 0.20	11.10 ± 0.20
	B	3.20 ± 0.10	4.50 ± 0.10	3.75 ± 0.075
	C	3.05 ± 0.15	$4.15^{+0}_{-0.25}$	$6.75^{+0.2}_{-0.25}$
	D	4.25 ± 0.15	7.20 ± 0.20	9.20 ± 0.20
	E	1.90 ± 0.10	2.70 ± 0.10	4.60 ± 0.10
	F	2.50 ± 0.10	3.40 ± 0.10	2.275 ± 0.10
	H			1.50 ± 0.10
Core Set Parameters	C1(mm⁻¹)	3.600	2.427	0.957
	Le(mm)	11.5	16.2	15.5
	Ae(mm²)	3.2	6.7	16.2
	Ve(mm³)	37	110	251
	Ac(mm²)	2.8	5.7	13.5
	Aw(mm²)	5.9	15.3	10.5
	W(g/set)	0.2	0.7	1.6
Electrical Characteristics ⁽¹⁾⁽²⁾	PL-7	580	800	1800
	PL-9	4400	3600	6800
	PL-11	580	800	1800
	SM-23T	600	800	1700
	SM-30B	700	1000	2300
	SM-70S	1700	2500	6400
	SM-100	19200	2800	6700
	PL-7	0.02	0.06	0.13
	PL-9	0.02	0.05	0.11
	PL-11	0.02	0.05	0.15
Core loss	PL-7	0.02	0.06	0.13
	PL-9	0.02	0.05	0.11
	PL-11	0.02	0.05	0.15

Note : 1) Core loss

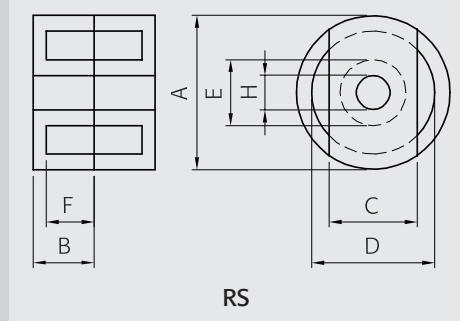
- Unit : Watt max.
- Measuring conditions
PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
PL-9 : 100 kHz, 200 mT, at 80°C

2) AL value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T, at 23°C
Tolerance: ±25% (SM-100 Mirror-grind :±30%)

	PC1408H	PC1811A	PC2213H	PC2311H	PC2318H	PC2417H	PC2616H	PC3019H	PC3622S	
	PC - @									
A	14.00 ± 0.60	17.90 ± 0.25	21.60 ± 0.30	22.90 ± 0.40	22.90 ± 0.45	24.30 ± 0.45	25.50 ± 0.50	30.00 ± 0.50	35.80 ± 0.50	
B	4.18 ± 0.15	5.30 ± 0.10	6.70 ± 0.10	5.55 ± 0.10	9.00 ± 0.15	8.675 ± 0.15	8.05 ± 0.225	9.40 ± 0.10	10.85 ± 0.15	
C	9.40 ref.	10.40 ref.	15.00 ref.	15.00 ± 0.40	15.00 ref.	17.00 ref.	18.00 ± 0.35	21.50 ref.	26.00 ± 0.50	
D	11.85 ± 0.40	15.10 ± 0.25	18.20 ± 0.25	18.25 ± 0.30	18.25 ± 0.30	21.00 ± 0.30	21.60 ± 0.50	25.40 ± 0.40	30.30 ± 0.40	
E	5.85 ± 0.40	7.40 ± 0.15	9.25 ± 0.15	9.75 ± 0.15	9.75 ± 0.15	11.00 ± 0.15	11.30 ± 0.30	13.30 ± 0.20	16.60 ± 0.20	
F	2.90 ± 0.15	3.70 ± 0.10	4.70 ± 0.10	3.75 ± 0.10	7.10 ± 0.15	6.10 ± 0.15	5.65 ± 0.20	6.60 ± 0.10	7.40 ± 0.15	
H	3.10 ± 0.15	3.10 ± 0.10	4.55 ± 0.10	5.08 ± 0.10	5.08 ± 0.15	5.40 ± 0.15	5.50 ± 0.20	5.55 ± 0.10	4.80 ± 0.15	
C1(mm³)	0.790	0.600	0.500	0.396	0.594	0.425	0.400	0.330	0.242	
Le(mm)	19.8	25.8	31.5	26.4	38.3	37.5	37.6	45.0	51.4	
Ae(mm²)	25.1	43.3	63.2	66.5	64.5	88.4	93.1	136.0	212.0	
Ve(mm³)	495	1120	1990	1751	2470	3320	3500	6120	10897	
Ac(mm²)	19.8	36.1	41.8	53.6	53.6	72.0	76.0	115.0	24.5	
Aw(mm²)	17.1	28.5	42.0	31.9	60.4	55.5	58.0	80.0	100.6	
W(g/set)	3.2	7.2	13	11	16	20	21	37	65	
A₁ value	PL-7	2350	3400	4000	5330	3555	4500	5350	6400	8500
	PL-9	5600	8200	3600	6800	5600	8200	3600	3600	6800
	PL-11	2350	3400	4000	5330	3555	4500	5350	6400	8500
	SM-23T	2300	3300	3800	5100	3400	4300	5100	6100	8100
	SM-30B	2900	4300	5000	6700	4400	5600	6700	8000	10600
	SM-70S	7800	10200	12300	15500	10300	14400	15300	18600	25300
	SM-100	9000	11900	16000	20200	13500	19700	20900	25900	28500
Core loss	PL-7	0.25	0.56	1.00	0.88	1.24	1.66	1.75	3.06	5.45
	PL-9	0.22	0.50	0.90	0.79	1.11	1.50	1.58	2.75	4.90
	PL-11	0.22	0.50	0.90	0.79	1.11	1.50	1.58	2.75	4.90

RS CORES



Part No.	RS1408H	RS1810S	RS1811H	RS2311H	
Type	RS	RS	RS	RS	
Dimensions in mm	A	14.00 ± 0.25	17.90 ± 0.30	17.90 ± 0.30	22.90 ± 0.46
	B	4.18 ± 0.10	4.80 ± 0.10	5.30 ± 0.10	5.55 ± 0.15
	C	9.40 ± 0.15	11.90 ± 0.20	11.90 ± 0.20	15.20 ± 0.25
	D	11.85 ± 0.25	15.10 ± 0.25	15.10 ± 0.25	18.25 ± 0.30
	E	5.85 ± 0.15	7.40 ± 0.15	7.40 ± 0.15	9.75 ± 0.15
	F	2.90 ± 0.10	3.20 ± 0.10	3.70 ± 0.10	3.80 ± 0.15
	H	3.10 ± 0.10		3.10 ± 0.10	5.08 ± 0.10
Core Set Parameters	C1(mm⁻¹)	0.910	0.520	0.670	0.470
	Le(mm)	21.1	24.7	27.2	28.6
	Ae(mm²)	23.3	47.5	40.6	61.0
	Ve(mm³)	492	1173	1110	1740
	Ac(mm²)	19.0	43.0	35.5	53.6
	Aw(mm²)	17.0	24.6	28.5	31.9
	W(g/set)	2.8	6.8	6.4	11

Electrical Characteristics ⁽¹⁾⁽²⁾	PL-7	2000	4060	3100	4500
	PL-9	2500	5075	3875	5625
	PL-11	2000	4060	3100	4500
	SM-23T	1900	3900	3000	4300
	ST-30B	2500	5100	3900	5600
	SM-70S	6700	11800	9100	13000
	SM-100	8000	13800	10900	15800
	PL-7	0.25	0.59	0.56	0.87
	PL-9	0.22	0.53	0.50	0.79
	PL-11	0.22	0.53	0.50	0.79

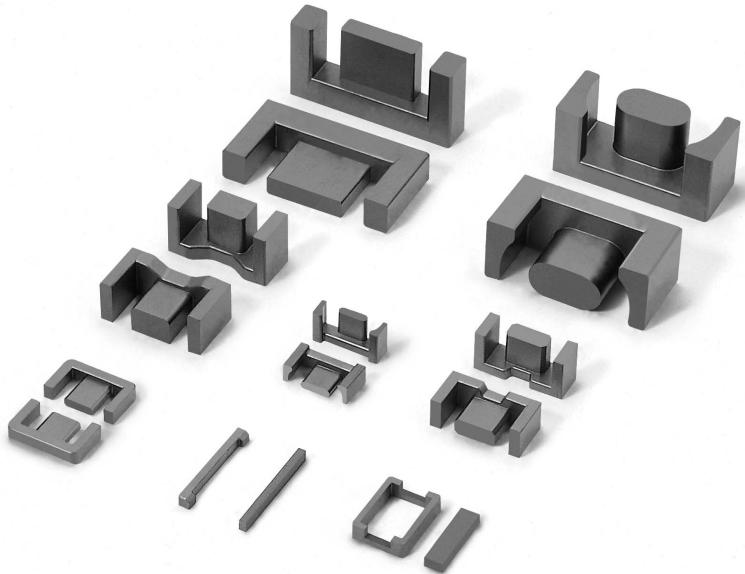
Note : 1) Core loss

- Unit : Watt max.
- Measuring conditions
PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
PL-9 : 100 kHz, 200 mT, at 80°C

2) AL value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
Tolerance: $\pm 25\%$ (SM-100 Mirror-grind : $\pm 30\%$)

	RS2318H	RS3019H
	RS	RS
A	22.90 \pm 0.45	30.00 \pm 0.50
B	9.00 \pm 0.15	9.40 \pm 0.10
C	15.20 \pm 0.25	20.30 \pm 0.30
D	18.25 \pm 0.30	25.40 \pm 0.40
E	9.75 \pm 0.15	13.30 \pm 0.20
F	7.10 \pm 0.15	6.60 \pm 0.10
H	5.08 \pm 0.10	5.55 \pm 0.15
C1(mm⁻¹)	0.670	0.347
Le(mm)	41.6	44.4
Ae(mm²)	62.2	128.1
Ve(mm³)	2590	5688
Ac(mm²)	53.6	35.5
Aw(mm²)	60.4	80.0
W(g/set)	14	29
Al value	PL-7 PL-9 PL-11 SM-23T ST-30B SM-70S SM-100	3300 6000 4125 7500 3300 6000 3200 5800 4100 7500 9100 17700 12700 25600
Core loss	PL-7 PL-9 PL-11	1.30 2.85 1.17 2.56 1.17 2.56



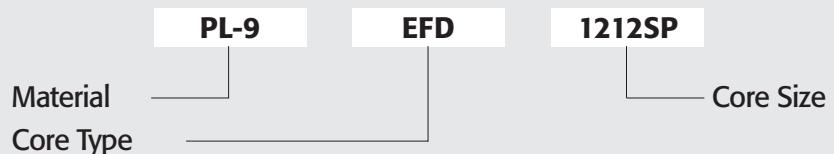
LOW PROFILE CORES

EFD12~EFD50

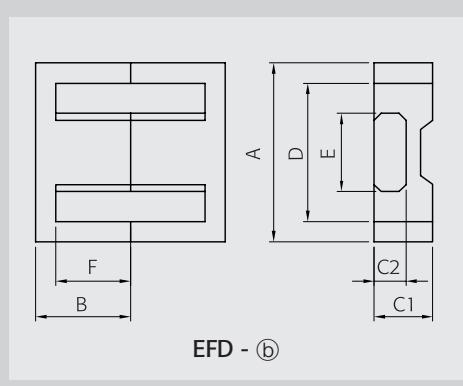
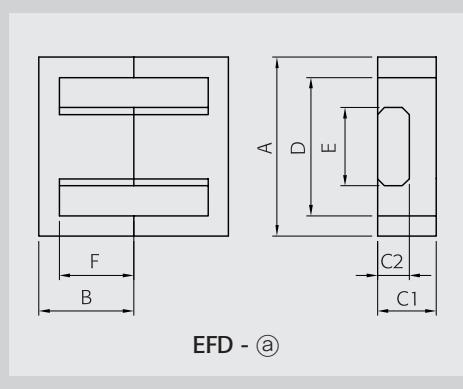
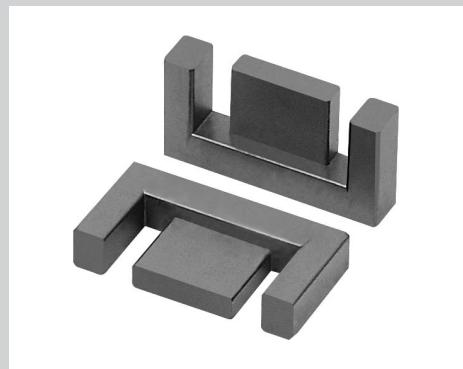
EPC10~EPC32

SI10~SI15, CI8

Ordering Code System



EFD CORES



Part No.	EFD1212SP	EFD1212S	EFD1311SH	EFD1314S	
Type	EFD - (b)	EFD - (b)	EFD - (b)	EFD - (b)	
Dimensions in mm	A	12.50 ± 0.30	12.20 ± 0.20	12.80 ± 0.25	
	B	6.20 ± 0.15	6.00 ± 0.20	5.60 ± 0.15	
	C1	3.50 ± 0.10	4.00 ± 0.15	3.80 ± 0.20	
	C2	2.00 ± 0.10	2.20 ± 0.10	1.70 ± 0.15	
	D	9.00 ± 0.25	9.40 ± 0.25	10.20 ± 0.25	
	E	5.40 ± 0.15	5.15 ± 0.15	5.70 ± 0.20	
	F	4.55 ± 0.15	4.60 ± 0.20	7.80 ± 0.30	
Core Set Parameters	C1(mm⁻¹)	2.500	2.500	2.550	
	Le(mm)	28.5	28.0	25.8	
	Ae(mm²)	11.4	11.2	10.1	
	Ve(mm³)	325	315	260	
	Ac(mm²)	10.7	11.3	9.7	
	Aw(mm²)	16.4	19.6	17.6	
	W(g/set)	1.6	1.5	1.0	
Electrical Characteristics ⁽¹⁾⁽²⁾	Al value	PL-7	840	710	870
		PL-9	1060	1050	1090
		PL-11	870	740	900
	Core loss	PL-7	0.21	0.19	0.16
		PL-9	0.18	0.18	0.15
		PL-11	0.18	0.18	0.15
					0.17

Note : 1) Core loss

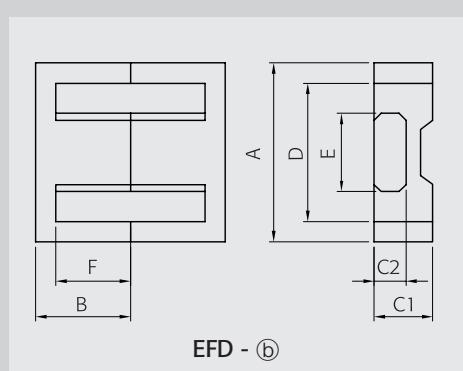
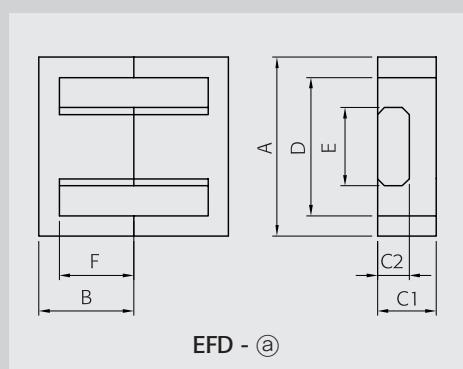
- Unit : Watt max.
- Measuring conditions
- PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
- PL-9 : 100 kHz, 200 mT, at 80°C

2) Al value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
- Tolerance: $\pm 25\%$

	EFD1318S	EFD1515S	EFD1614SH	EFD1618S	EFD1715S	EFD1820S	EFD1822S	EFD2020S	EFD2023S	
	EFD - ①	EFD - ②	EFD - ③	EFD - ④	EFD - ⑤	EFD - ⑥	EFD - ⑦	EFD - ⑧	EFD - ⑨	
A	13.60 ±0.30	15.00 ±0.40	16.00 ±0.30	16.40 ±0.30	16.90 ±0.30	17.70 ±0.30	17.70 ±0.30	20.00 ±0.55	20.00 ±0.55	
B	8.80 ±0.15	7.50 ±0.15	7.20 ±0.15	9.00 ±0.20	7.45 ±0.20	10.10 ±0.20	10.90 ±0.20	10.00 ±0.15	11.50 ±0.15	
C1	3.70 ±0.20	4.65 ±0.15	4.80 ±0.20	4.50 ±0.15	5.50 ±0.20	5.60 ±0.15	5.60 ±0.15	6.65 ±0.15	6.65 ±0.15	
C2	2.00 ±0.15	2.40 ±0.10	2.40 ±0.15	2.35 ±0.10	2.90 ±0.10	3.40 ±0.10	3.40 ±0.10	3.60 ±0.15	3.60 ±0.15	
D	10.10 ±0.25	11.00 ±0.35	12.50 ±0.30	12.60 min.	12.80 min.	13.10 min.	13.10 min.	15.40 ±0.50	15.40 ±0.50	
E	6.00 ±0.15	5.30 ±0.15	6.00 ±0.20	6.70 ±0.15	7.30 ±0.15	7.50 ±0.15	7.50 ±0.15	8.90 ±0.20	8.90 ±0.20	
F	7.00 ±0.15	5.50 ±0.25	5.20 ±0.20	7.30 ±0.20	5.45 ±0.15	7.80 ±0.20	8.60 ±0.20	7.70 ±0.20	9.20 ±0.20	
C1(mm ³)	3.070	2.270	2.140	2.400	1.740	2.020	2.140	1.520	1.710	
Le(mm)	38.7	34.0	34.9	34.4	34.8	51.6	54.8	47.0	53.0	
Ae(mm ²)	12.6	15.0	16.3	14.3	20.0	25.6	25.6	31.0	31.0	
Ve(mm ³)	487	510	562	492	696	1320	1402	1460	1643	
Ac(mm ²)	12.0	12.7	14.4	30.2	21.2	25.5	25.5	32.0	32.0	
Aw(mm ²)	28.7	31.4	33.8	44.5	32.7	46.0	53.6	50.0	60.5	
W(g/set)	1.9	2.5	2.7	3.0	3.3	5.9	6.6	7.0	7.9	
Al value	PL-7	630	890	920	840	1150	1050	990	1370	1240
	PL-9	800	1110	1145	1100	1310	1310	1250	1710	1550
	PL-11	660	920	960	900	1200	1100	1030	1400	1300
Core loss	PL-7	0.27	0.26	0.34	0.27	0.39	0.73	0.77	0.87	0.97
	PL-9	0.22	0.23	0.25	0.25	0.31	0.59	0.70	0.74	0.83
	PL-11	0.22	0.23	0.25	0.25	0.31	0.73	0.70	0.74	0.83

EFD CORES



Part No.	EFD2025N	EFD2025S	EFD2027S	EFD2121S
Type	EFD - (a)	EFD - (a)	EFD - (a)	EFD - (b)
Dimensions in mm				
A	20.30 ± 0.35	20.00 ± 0.55	20.30 ± 0.35	21.60 ± 0.30
B	12.75 ± 0.25	12.50 ± 0.20	13.50 ± 0.25	10.40 ± 0.20
C1	6.65 ± 0.15	6.65 ± 0.15	5.60 ± 0.20	10.20 ± 0.20
C2	3.60 ± 0.15	3.60 ± 0.15	3.40 ± 0.20	6.00 ref.
D	15.70 ± 0.30	15.40 ± 0.50	14.30 ± 0.30	17.70 ± 0.20
E	8.90 ± 0.20	8.90 ± 0.20	8.90 ± 0.20	7.90 ± 0.20
F	10.45 ± 0.20	10.20 ± 0.20	10.45 ± 0.20	8.00 ± 0.20
Core Set Parameters				
C1(mm ⁻¹)	1.940	1.840	1.864	1.245
Le(mm)	59.7	57.0	61.5	58.6
Ae(mm ²)	30.8	31.0	33.0	47.0
Ve(mm ³)	1840	1767	2030	2752
Ac(mm ²)	14.4	32.0	30.3	47.0
Aw(mm ²)	33.8	66.3	56.4	78.4
W(g/set)	9.0	8.5	10	13
Electrical Characteristics ⁽¹⁾⁽²⁾				
Al value	PL-7	1100	1150	1130
	PL-9	1360	1450	1400
	PL-11	1100	1200	1200
Core loss	PL-7	0.92	0.98	1.12
	PL-9	0.83	0.89	1.02
	PL-11	0.83	0.89	1.02
				1.24

Note : 1) Core loss

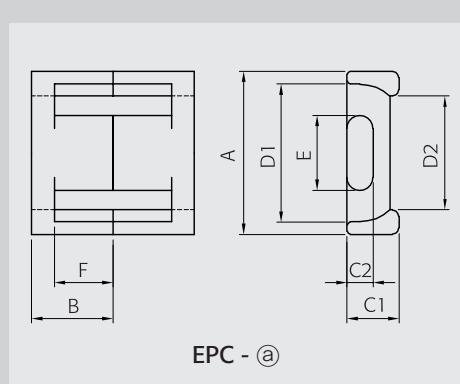
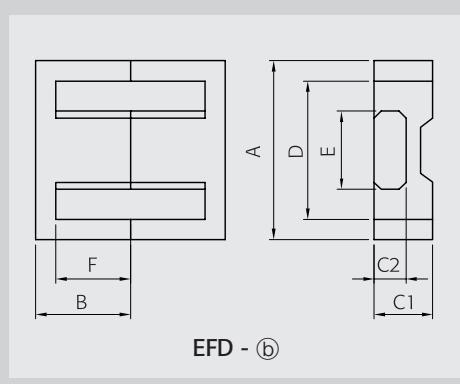
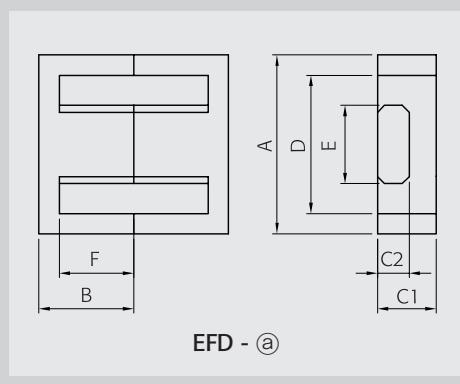
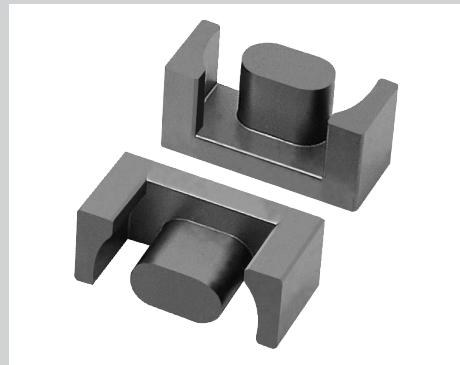
- Unit : Watt max.
- Measuring conditions
- PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
- PL-9 : 100 kHz, 200 mT, at 80°C

2) Al value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
- Tolerance: $\pm 25\%$

	EFD2124L	EFD2124S	EFD2125L	EFD2322SH	EFD2525S	EFD2525V	EFD2625S	EFD2632SH	EFD2726SH	
	EFD - ⑥	EFD - ⑧	EFD - ⑥							
A	21.20 ± 0.40	20.80 ± 0.35	21.20 ± 0.40	22.70 ± 0.30	25.00 ± 0.65	25.05 ± 0.75	26.00 ± 0.55	25.50 ± 0.35	27.40 ± 0.40	
B	12.10 ± 0.20	12.10 ± 0.10	12.50 ± 0.20	11.00 ± 0.15	12.50 ± 0.15	12.60 ± 0.20	12.60 ± 0.15	15.75 ± 0.20	13.00 ± 0.20	
C1	5.90 ± 0.15	4.50 ± 0.20	5.90 ± 0.15	10.00 ± 0.20	9.10 ± 0.20	12.45 ± 0.25	9.10 ± 0.20	9.00 ± 0.25	9.20 ± 0.20	
C2	3.30 ± 0.10	2.95 ± 0.15	3.30 ± 0.10	6.85 ± 0.15	5.20 ± 0.15	8.30 ± 0.30	5.20 ± 0.15	7.00 ± 0.20	5.00 ± 0.15	
D	15.80 min.	15.00 ± 0.30	15.80 min.	16.75 ± 0.25	18.70 ± 0.60	19.20 ± 0.40	19.40 ± 0.50	18.70 min.	21.2 $^{+0.40}_{-0.30}$	
E	9.40 ± 0.20	8.40 ± 0.20	9.40 ± 0.20	7.35 ± 0.15	11.40 ± 0.20	8.80 ± 0.25	11.40 ± 0.20	8.00 ± 0.20	12.3 $^{+0.20}_{-0.30}$	
F	9.30 ± 0.15	9.20 ± 0.15	9.70 ± 0.15	7.40 ± 0.15	9.30 ± 0.25	9.55 ± 0.25	9.30 ± 0.25	12.30 ± 0.20	8.60 ± 0.20	
C1(mm³)	1.820	2.180	1.830	0.867	0.980	0.810	0.973	1.237	0.934	
Le(mm)	57.0	52.1	57.2	50.4	57.0	60.0	58.4	72.0	58.3	
Ae(mm²)	31.3	23.9	31.3	58.0	58.0	73.0	60.0	58.2	62.4	
Ve(mm³)	1783	1245	1790	2930	3300	4300	3500	4400	3637	
Ac(mm²)	31.0	24.8	31.0	50.0	60.0	73.0	59.0	56.0	61.3	
Aw(mm²)	60.7	60.7	66.0	70.0	70.0	91.7	74.4	131.6	77.4	
W(g/set)	9.0	6.0	9.1	14	14	21	17	21	17	
Al value	PL-7	1200	970	1170	2200	2250	2700	2300	1500	1800
	PL-9	1450	1210	1450	3045	2800	3350	2875	2225	2950
Core loss	PL-11	1300	1000	1200	2300	2300	2800	2400	1600	1900
	PL-7	0.98	0.70	1.00	1.60	1.65	2.60	1.93	2.42	2.00
	PL-9	0.90	0.56	0.91	1.47	1.50	2.25	1.75	2.20	1.82
	PL-11	0.90	0.56	0.91	1.47	1.50	2.60	1.75	2.20	1.82

EFD, EPC CORES



Part No.	EFD2828SH	EFD3030S	EFD3033V	EFD3130S
Type	EFD - (a)	EFD - (b)	EFD - (b)	EFD - (b)
Dimensions in mm	A	28.40 ± 0.50	30.00 ± 0.80	29.70 ± 0.80
	B	14.10 ± 0.20	15.00 ± 0.15	16.40 ± 0.30
	C1	11.10 ± 0.25	9.10 ± 0.25	12.50 ± 0.40
	C2	6.50 ± 0.25	4.90 ± 0.15	8.20 ± 0.30
	D	21.80 min.	22.40 ± 0.75	22.10 ± 0.50
	D2			
	E	12.7 $^{+0.20}_{-0.25}$	14.60 ± 0.25	11.60 ± 0.30
	F	9.50 ± 0.20	11.20 ± 0.30	11.90 ± 0.30
Core Set Parameters	C1(mm⁻¹)	0.760	0.990	0.750
	Le(mm)	59.2	68.0	73.0
	Ae(mm²)	77.9	69.0	97.0
	Ve(mm³)	4610	4700	7100
	Ac(mm²)	82.5	71.0	95.0
	Aw(mm²)	90.2	87.4	125.0
	W(g/set)	22	24	35
Electrical Characteristics ⁽¹⁾⁽²⁾	Core loss Al value	PL-7	2700	1950
		PL-9	3475	2500
		PL-11	2800	2000
		PL-7	2.54	2.60
		PL-9	2.30	2.35
		PL-11	2.30	2.35

Note : 1) Core loss

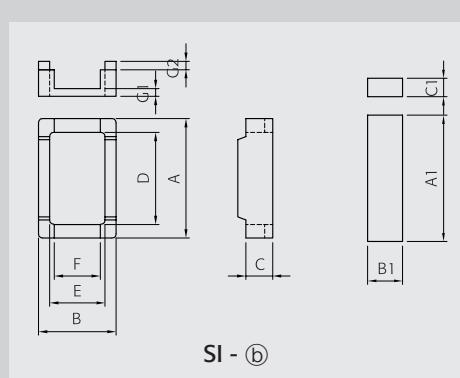
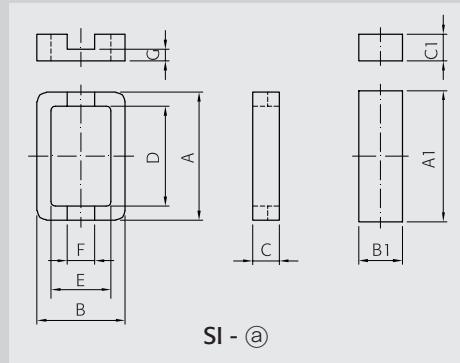
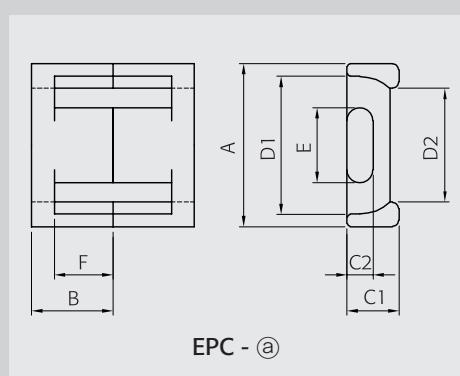
- Unit : Watt max.
- Measuring conditions
PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
PL-9 : 100 kHz, 200 mT, at 80°C

2) Al value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
- Tolerance: $\pm 25\%$

	EFD5050S	EPC1008S	EPC1211S	EPC1313S	EPC1715N	EPC1717S	EPC1720SH	EPC1826W	EPC1920N
	EFD - @	EPC - @							
A	50.00 ± 0.50	10.20 ± 0.20	12.60 ± 0.30	13.30 ± 0.30	17.60 ± 0.40	17.60 ± 0.40	16.85 ± 0.35	18.50 ± 0.30	19.60 ± 0.50
B	25.00 ± 0.30	4.05 ± 0.10	5.82 ± 0.06	6.60 ± 0.20	7.60 ± 0.20	8.55 ± 0.20	9.85 ± 0.15	13.20 ± 0.15	9.75 ± 0.20
C1	10.00 ± 0.30	3.40 ± 0.10	3.4 ± 0.10	4.60 ± 0.15	6.00 ± 0.15	6.00 ± 0.15	4.00 ± 0.20	4.25 ± 0.15	6.00 ± 0.20
C2	6.00 ± 0.20	1.90 ± 0.10	2.39 ± 0.09	2.05 ± 0.10	2.80 ± 0.10	2.80 ± 0.10	2.60 ± 0.15	2.75 ± 0.15	2.40 ± 0.15
D (D1)	35.00 min.	7.60 min.	8.95 ± 0.15	10.50 min.	14.30 min.	14.30 min.	13.80 ± 0.30	13.10 min.	16.40 ± 0.50
D2		5.30 min.	7.47 ± 0.15	8.30 min.	12.00 ± 0.50	12.00 ± 0.50	12.40 ± 0.30	10.70 min.	13.40 ± 0.50
E	23.00 ± 0.30	5.00 ± 0.10	6.05 ± 0.15	5.60 ± 0.15	7.70 ± 0.15	7.70 ± 0.15	8.20 ± 0.20	9.10 ± 0.15	8.30 ± 0.20
F	17.00 ± 0.30	2.65 ± 0.10	3.35 ± 0.10	4.50 ± 0.20	5.40 ± 0.20	6.05 ± 0.20	7.35 ± 0.15	10.30 ± 0.15	7.25 ± 0.20
C1(mm ³)	0.680	1.890	1.480	2.460	1.650	1.760	2.563	2.630	1.890
Le(mm)	103.3	17.8	21.5	30.6	37.6	40.2	41.7	62.0	43.3
Ae(mm ²)	151.5	9.4	14.5	12.5	22.8	22.8	16.3	23.6	23.0
Ve(mm ³)	15463	167	310	382	857	917	679	1460	996
Ac(mm ²)	138.0	8.7	11.0	8.7	19.9	19.9	13.8	15.8	19.3
Aw(mm ²)	221.0	7.7	9.8	23.0	38.0	41.1	41.2	44.3	59.5
W(g/set)	90	1.0	1.5	1.9	4.3	4.5	3.5	7.6	5.1
Core loss Al value	PL-7	3100	1000	1150	870	1300	1200	830	1050
	PL-9	3900	1250	1440	1090	1625	1500	1040	1150
	PL-11	3200	1000	1200	900	1400	1300	900	1100
	PL-7	10.00	0.10	0.19	0.23	0.51	0.55	0.41	0.80
	PL-9	8.00	0.90	0.16	0.19	0.43	0.46	0.34	0.75
	PL-11	8.00	0.90	0.16	0.19	0.43	0.46	0.34	0.50

EPC, SI CORES



Part No.	EPC1920S	EPC2228S	EPC2525S	EPC2728SH
Type	EPC - @	EPC - @	EPC - @	EPC - @
A	19.10 ± 0.50	21.90 ± 0.30	25.10 ± 0.50	26.80 ± 0.40
A1				
B	9.75 ± 0.20	14.20 ± 0.20	12.50 ± 0.20	14.00 ± 0.20
B1				
C				
C1	6.00 ± 0.15	7.30 ± 0.20	8.00 ± 0.20	10.8 ± 0.20
C2	2.50 ± 0.10	4.15 ± 0.15	4.00 ± 0.10	6.20 ± 0.20
D (D1)	15.80 min.	16.90 ± 0.20	20.65 min.	22.80 ± 0.40
D2	13.60 ± 0.50	14.80 min.	17.50 ± 0.50	18.00 ± 0.50
E	8.50 ± 0.15	9.50 ± 0.15	11.50 ± 0.20	13.30 ± 0.25
F	7.25 ± 0.20	11.55 ± 0.15	9.00 ± 0.30	9.80 ± 0.20
G (G1)				
G2				

Core Set Parameters	C1(mm ⁻¹)	2.030	1.380	1.270	0.762
	Le(mm)	46.1	50.8	59.2	64.0
	Ae(mm ²)	22.7	36.7	46.4	84.0
	Ve(mm ³)	1047	1864	2747	5376
	Ac(mm ²)	20.0	39.0	42.6	76.5
	Aw(mm ²)	54.4	83.0	90.3	93.1
	W(g/set)	5.4	9.0	13	26

Electrical Characteristics ⁽¹⁾⁽²⁾	AL value	PL-7	1090	1500	1600	2600
		PL-9	1360	1900	2000	3250
Core loss	PL-11	1130	1600	1700	2700	
		PL-7	0.63	1.10	1.65	3.23
Core loss	PL-9	0.52	1.00	1.37	2.69	
		PL-11	0.52	1.00	1.37	2.69

Note : 1) Core loss

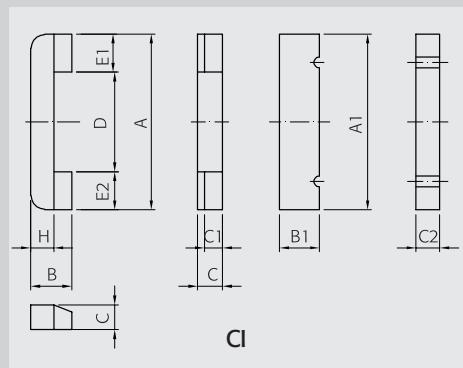
- Unit : Watt max.
- Measuring conditions
PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
PL-9 : 100 kHz, 200 mT, at 80°C

2) AL value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
- Tolerance: ±25%

	EPC2732S	EPC2833SH	EPC3028SH	EPC3035S	EPC3230SH	SI1024S	SI1221N	SI1221S	SI1520A
	EPC - @	SI - (b)	SI - @	SI - (b)	SI - @				
A	27.10 ± 0.50	28.00 ± 0.40	30.50 ± 0.40	30.10 ± 0.50	31.50 ± 0.50	23.80 ± 0.30	20.85 ± 0.20	20.85 ± 0.20	19.70 ± 0.30
A1						24.30 ± 0.20	21.80 ± 0.30	21.80 ± 0.30	19.90 ± 0.30
B	16.00 ± 0.20	16.50 ± 0.25	14.00 ± 0.25	17.50 ± 0.20	15.00 ± 0.25	9.80 ± 0.20	11.80 ± 0.25	11.80 ± 0.25	14.80 ± 0.30
B1						4.40 ± 0.10	5.50 ± 0.20	5.50 ± 0.20	5.45 ± 0.15
C						3.15 ± 0.10	3.50 ± 0.10	3.50 ± 0.10	4.60 ± 0.10
C1	8.00 ± 0.20	8.00 ± 0.20	13.20 ± 0.20	8.00 ± 0.20	13.00 ± 0.30	2.00 ± 0.07	1.80 ± 0.10	1.80 ± 0.10	2.80 ± 0.05
C2	4.00 ± 0.10	4.00 ± 0.15	8.50 ± 0.15	4.00 ± 0.10	7.40 ± 0.20				
D (D1)	21.60 min.	22.00 ± 0.40	23.50 min.	23.60 min.	25.00 min.	19.20 ± 0.30	16.20 ± 0.15	16.20 ± 0.15	15.60 ± 0.30
D2	19.00 ± 0.50	15.00 ref.	18.00 min.	20.00 ± 0.50	19.50 min.				
E	13.00 ± 0.30	13.0 ± 0.25	14.50 ± 0.15	15.00 ± 0.30	13.00 ± 0.30	7.30 $^{+0.10}_{-0.15}$	8.90 ± 0.20	8.90 ± 0.20	11.40 ± 0.25
F	12.00 ± 0.30	12.00 ± 0.20	9.10 ± 0.20	13.00 ± 0.30	11.00 ± 0.20	5.70 max.	7.10 $^{+0}_{-0.20}$	7.10 $^{+0}_{-0.20}$	7.00 ± 0.10
G (G1)						1.30 ± 0.10	1.20 ± 0.10	1.20 ± 0.10	1.85 ± 0.05
G2						0.40 ref.			0.50 max.
C1(mm ³)	1.426	1.366	5.539	1.320	0.813	5.340	3.880	3.880	3.290
Le(mm)	70.1	70.6	60.6	81.6	73.0	46.6	41.9	41.9	46.0
Ae(mm ²)	49.1	51.7	109.4	61.0	89.8	8.7	10.8	10.8	14.0
Ve(mm ³)	3808	3650	6627	5035	6556	406	453	453	644
Ac(mm ²)	48.6	48.6	101.3	56.6	83.6	8.8	10.1	10.1	15.3
Aw(mm ²)	108.0	108.0	86.5	117.0	137.6	51.8	27.5	27.5	46.4
W(g/set)	18	18	32	24	32	2.0	2.2	2.2	3.2
Al value	PL-7	1540	1500	3700	1640	2600	340	530	500
	PL-9	1925	1875	4625	2050	3250	420	680	630
Core loss	PL-11	1600	1600	3900	1700	2700	360	550	520
	PL-7	2.28	2.19	3.98	3.02	3.93	0.25	0.30	0.45
	PL-9	1.90	1.83	3.31	2.52	3.28	0.22	0.27	0.41
	PL-11	1.90	1.83	3.31	2.52	3.28	0.22	0.27	0.41

CI CORES



Type	Part No.		Cl8.0	Cl8.5
			Cl	Cl
A			28.80 ± 0.50	28.80 ± 0.50
A1			29.50 ± 0.50	29.50 ± 0.50
B			3.50 ± 0.075	3.50 ± 0.075
B1			3.15 ± 0.10	3.50 ± 0.10
C			2.70 ± 0.20	3.20 ± 0.20
C1			2.00 ± 0.15	2.40 ± 0.15
C2			1.75 ± 0.05	2.20 ± 0.05
D			21.60 min.	21.60 min.
E1			3.40 ± 0.10	3.40 ± 0.10
E2			3.40 ± 0.10	3.40 ± 0.10
E1-E2			± 0.1	± 0.1
H			2.05 ± 0.10	2.35 ± 0.10

Core Set Parameters	C1(mm ⁻¹)	9.710	7.180
	Le(mm)	55.9	56.2
	Ae(mm ²)	5.8	7.8
	Ve(mm ³)	322	440
	Ac(mm ²)	5.5	7.7
	Aw(mm ²)	31.9	25.3
	W(g/set)	2.2	2.6

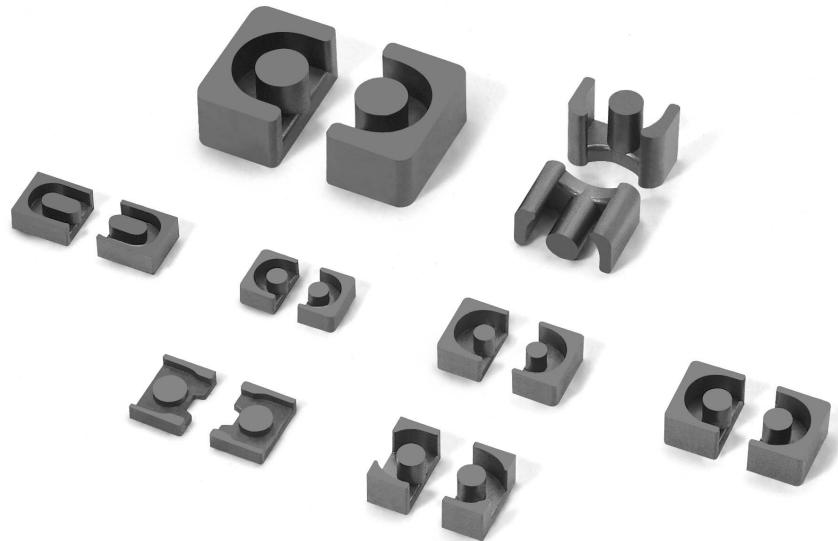
Electrical Characteristics ⁽¹⁾⁽²⁾	Al value	PL-7	220	300
		PL-9	270	370
		PL-11	200	300
	Core loss	PL-7	0.06	0.07
		PL-9	0.05	0.06
		PL-11	0.05	0.06

Note : 1) Core loss

- Unit : Watt max.
- Measuring conditions
PL-7, PL-11 : 25 kHz, 200 mT, at 100°C
PL-9 : 25 kHz, 200 mT, at 80°C

2) Al value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
- Tolerance: $\pm 25\%$



EP CORES

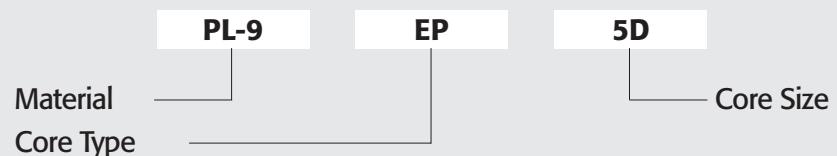
EP5~EP20

EOP9~EOP9.5

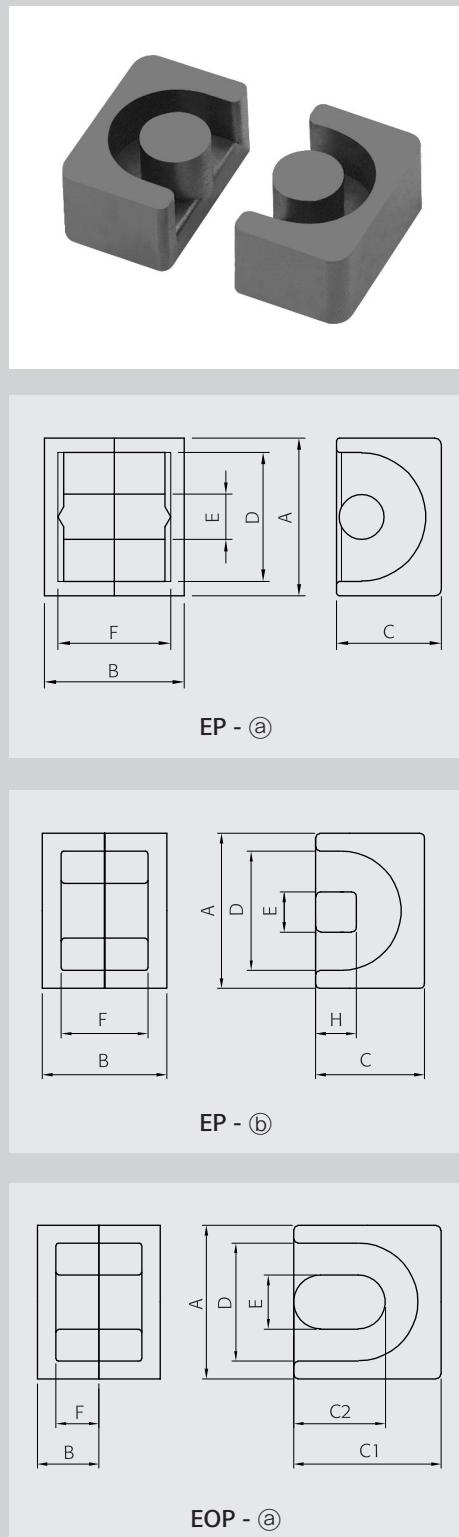
ELP12~ELP25

EPS13~EPS17

Ordering Code System



EP, EOP, ELP cores



Part No.	EP5D	EP7	EP10	EP13
Type	EP - ④	EP - ④	EP - ④	EP - ④
A	5.33 ±0.10	9.20 ±0.20	11.50 ±0.30	12.50 ±0.30
B	5.33 ±0.20	7.40 ±0.20	10.20 ±0.20	12.85 ±0.15
C	3.48 ±0.10	6.35 ±0.15	7.65 ±0.20	8.80 ±0.20
C2				
D	3.91 ±0.10	7.40 ±0.20	9.40 ±0.20	10.00 ±0.30
D2				
E	1.68 ±0.10	3.30 ±0.10	3.30 ±0.15	4.35 ±0.15
F	3.92 ^{+0.16} _{-0.06}	5.20 ±0.20	7.40 ±0.20	9.20 ±0.20
Core Set Parameters				
C1(mm ⁻¹)	3.180	1.520	1.700	1.240
Le(mm)	11.4	15.7	19.2	24.2
Ae(mm ²)	3.6	10.3	11.3	19.5
Ve(mm ³)	41	162	217	472
Ac(mm ²)	2.7	8.5	8.5	14.9
Aw(mm ²)	4.2	11.0	23.0	26.0
W(g/set)	0.4	1.4	2.8	5.1
Electrical Characteristics ⁽¹⁾⁽²⁾				
A _L value	PL-7	550	1100	1100
	PL-9	690	1660	1530
	PL-11	570	1140	1140
	SM-23T	540	1100	1100
	SM-43T	1000	2300	2200
	ST-30B	690	1530	1530
	SM-100	2000	5200	4800
Core loss	PL-7	0.02	0.09	0.11
	PL-9	0.02	0.07	0.10
	PL-11	0.02	0.07	0.10

Note : 1) Core loss

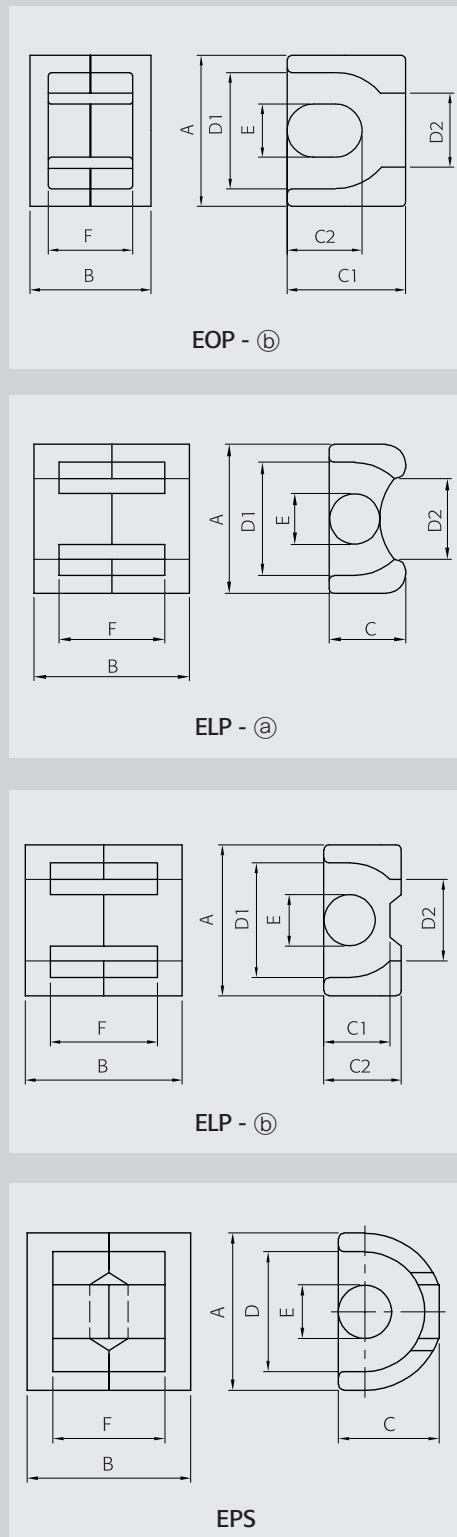
- Unit : Watt max.
- Measuring conditions
PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
PL-9 : 100 kHz, 200 mT, at 80°C

2) A_L value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
- Tolerance: ±25% (SM-100 Mirror-grind :±30%)

	EP13F	EP17	EP20	EOP9.0	EOP9.5	EOP9.5D	ELP1205P	ELP1623S	ELP2522S	
	EP - @	EP - @	EP - @	EOP - @	EOP - @	EOP - @	ELP - @	ELP - @	ELP - @	
A	12.50 ± 0.30	18.00 ± 0.40	24.00 ± 0.50	9.40 ± 0.40	9.45 ± 0.20	9.50 ± 0.40	12.20 ± 0.10	16.50 ± 0.30	25.00 ± 0.40	
B	13.05 ± 0.15	16.80 ± 0.20	21.40 ± 0.20	7.50 ± 0.20	8.50 ± 0.20	8.00 ± 0.60	5.20 ± 0.20	23.40 ± 0.20	22.40 ± 0.20	
C (C1)	8.80 ± 0.20	11.00 ± 0.25	14.95 ± 0.35	9.00 ± 0.40	10.1 ± 0.15	7.70 ± 0.30	9.00 ± 0.20	8.70 ± 0.20	12.90 ± 0.30	
C2				5.60 ± 0.20	6.50 ± 0.15	5.74 ± 0.10	7.30 ± 0.15			
D (D1)	10.00 ± 0.30	12.00 ± 0.40	16.50 ± 0.40	7.20 ± 0.40	7.50 ± 0.20	7.10 ± 0.40	10.00 ± 0.20	12.50 ± 0.30	19.00 ± 0.30	
D2						4.50 ref.	8.90 ± 0.20	9.00 ± 0.50	13.50 ± 0.50	
E	4.35 ± 0.15	5.68 ± 0.20	8.75 ± 0.25	3.30 ± 0.10	3.13 ± 0.10	3.13 ± 0.10	5.40 Max.	5.70 ± 0.10	8.60 ± 0.20	
F	9.40 ± 0.20	11.30 ± 0.30	14.30 ± 0.30	4.60 ± 0.40	5.46 ± 0.20	5.46 ± 0.20	3.00 ± 0.20	17.40 ± 0.20	16.40 ± 0.30	
C1(mm ³)	1.260	0.840	0.510	0.930	0.820	0.900	0.808	1.410	0.720	
Le(mm)	24.6	28.5	39.8	15.4	19.5	19.3	15.4	44.1	49.0	
Ae(mm ²)	19.5	33.9	78.0	16.5	23.8	21.4	19.0	31.3	67.9	
Ve(mm ³)	480	966	3120	255	464	413	293	1380	3327	
Ac(mm ²)	14.9	25.3	60.1	16.7	18.2	16.6	21.2	25.5	58.1	
Aw(mm ²)	26.0	36.0	55.0	9.8	18.5	11.4	7.5	59.0	85.0	
W(g/set)	5.1	12	28	2.1	2.8	2.0	1.8	10	20	
Al value	PL-7	1700	2400	4000	2100	2400	2300	2700	1500	3000
	PL-9	2200	3000	5020	2600	3100	2900	3400	1870	3750
	PL-11	1800	2500	4200	2200	2500	2400	2800	1600	3100
	SM-23T	1600	2400	3500	2000	2300	2200	2600	1450	2840
	SM-43T	3000	4500	6900	3700	3600	3800	4800	2700	5300
	ST-30B	2200	3340	4870	2800	2800	2900	3300	1900	3700
	SM-100	7200	10800	18700	9000	7500	7000	10000	4200	8700
Core loss	PL-7	0.25	0.49	1.56	0.13	0.26	0.21	0.19	0.69	1.70
	PL-9	0.22	0.43	1.40	0.12	0.23	0.19	0.18	0.57	1.40
	PL-11	0.22	0.43	1.40	0.12	0.23	0.19	0.18	0.57	1.40

ELP, EPS CORES



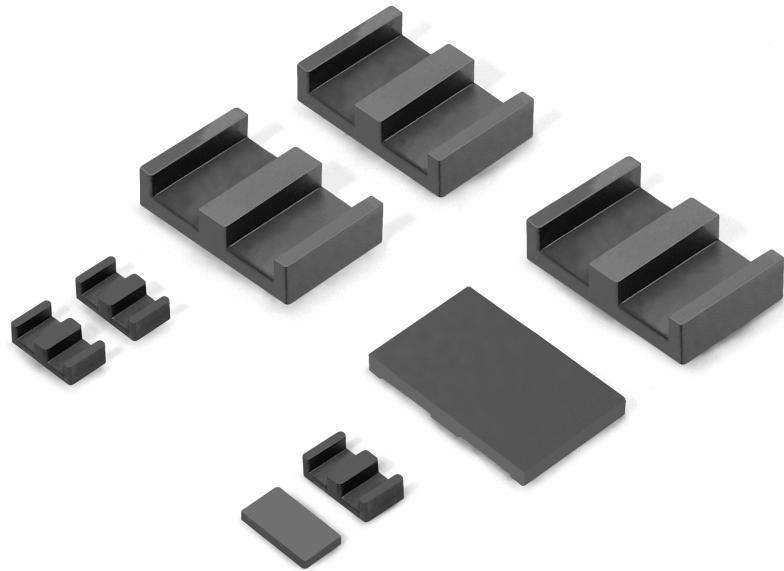
Part No.	ELP2532S	EPS13N	EPS17N	
Type	ELP - (a)	EPS	EPS	
A	25.00 ± 0.40	12.20 ± 0.30	15.00 ± 0.30	
B	31.80 ± 0.20	12.30 ± 0.20	15.20 ± 0.20	
C	12.90 ± 0.30	9.40 ± 0.20	11.84 ± 0.20	
C2				
D (D1)	19.00 ± 0.30	10.00 ± 0.20	12.00 ± 0.20	
D2	13.50 ± 0.50			
E	8.60 ± 0.20	4.35 $^{+0}_{-0.30}$	5.68 $^{+0}_{-0.30}$	
F	24.10 ± 0.30	9.30 ± 0.20	11.50 ± 0.20	
Dimensions in mm				
Core Set Parameters	C1(mm^{-1})	0.910	1.520	1.110
	Le(mm)	64.0	26.9	34.4
	Ae(mm^2)	70.3	17.7	31.2
	Ve(mm^3)	4500	477	1073
	Ac(mm^2)	58.1	14.9	25.3
	Aw(mm^2)	125.0	26.7	37.2
	W(g/set)	30	3.2	6.5
Electrical Characteristics ⁽¹⁾⁽²⁾	PL-7	2500	1400	1900
	PL-9	3100	1700	2400
	PL-11	2600	1500	2000
	SM-23T	2380	1300	1800
	SM-43T	4400	2100	3100
	ST-30B	3100	1700	2400
	SM-100	6900	4500	6300
Core Loss	PL-7	2.25	1.15	0.51
	PL-9	1.90	1.05	0.47
	PL-11	1.90	1.05	0.47
AL value				

Note : 1) Core loss

- Unit : Watt max.
- Measuring conditions
PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
PL-9 : 100 kHz, 200 mT, at 80°C

2) AL value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100Ts, at 23°C
- Tolerance: $\pm 25\%$ (SM-100 Mirror-grind : $\pm 30\%$)

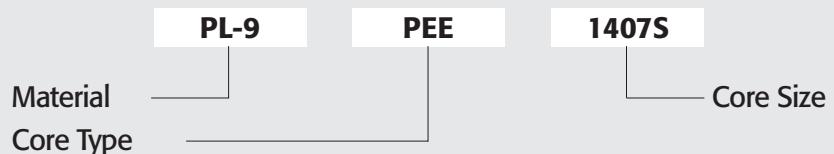


PLANAR CORES

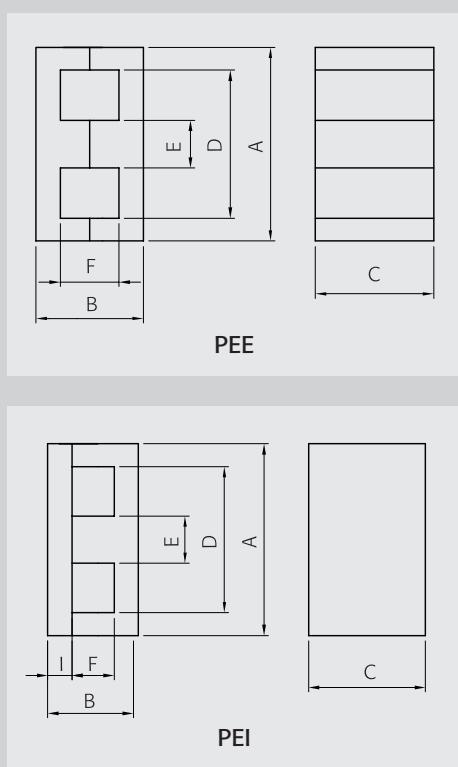
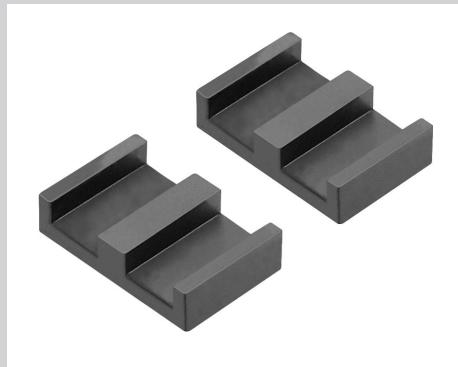
PEE14~PEE58

PEI14~PEI58

Ordering Code System



PEE, PEI CORES



Part No.	PEE1407S	PEE1808S	PEE2211S	PEE3213S
Type	PEE	PEE	PEE	PEE
Dimensions in mm	A	14.00 ± 0.30	18.00 ± 0.35	21.80 ± 0.40
	B	7.00 ± 0.20	8.00 ± 0.20	11.40 ± 0.20
	C	5.00 ± 0.10	10.0 ± 0.20	15.80 ± 0.30
	D	11.00 ± 0.25	14.00 ± 0.30	16.80 ± 0.40
	E	3.00 ± 0.05	4.00 ± 0.10	5.00 ± 0.10
	F	4.00 ± 0.20	4.00 ± 0.20	6.40 ± 0.20
	I			6.36 ± 0.40
Core Set Parameters	C1(mm⁻¹)	1.430	0.616	0.414
	Le(mm)	20.7	24.3	32.5
	Ae(mm²)	14.5	39.5	78.5
	Ve(mm³)	300	960	2550
	Ac(mm²)	14.5	39.5	78.5
	Aw(mm²)	16.0	20.0	37.8
	W(g/set)	1.2	4.8	13
Electrical Characteristics ⁽¹⁾⁽²⁾	Al value	PL-7	1500	3400
		PL-9	1880	4250
		PL-11	1560	3540
		PL-F1	880	1980
	Core loss	PL-7	0.15	0.48
		PL-9	0.14	0.43
		PL-11	0.14	0.43
		PL-F1	0.04	0.12
				0.31
				0.65

Note : 1) Core loss

- Unit : Watt max.
- Measuring conditions

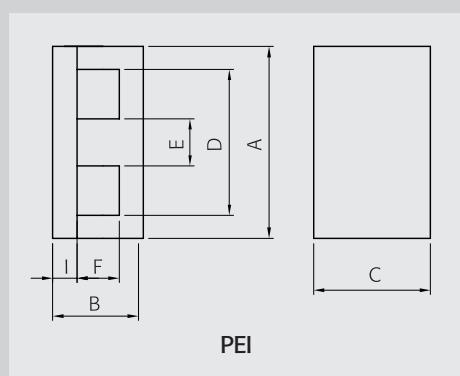
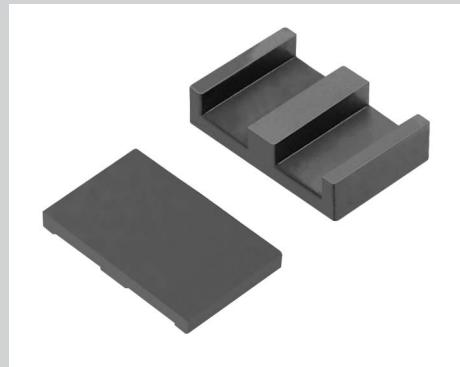
PL-7, PL-11	: 100 kHz, 200 mT, at 100°C
PL-9	: 100 kHz, 200 mT, at 80°C
PL-F1	: 500 kHz, 50mT, at 80°C

2) Al value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100Ts at 23°C
- Tolerance: $\pm 25\%$

	PEE3817S	PEE4319S	PEE5821S	PEI1405S	PEI1806S	PEI2208S	PEI3210S	PEI3812S	PEI4314S
	PEE	PEE	PEE	PEI	PEI	PEI	PEI	PEI	PEI
A	38.10 ± 0.76	43.20 ± 0.90	58.40 ± 1.20	14.00 ± 0.30	18.00 ± 0.35	21.80 ± 0.40	31.75 ± 0.64	38.10 ± 0.76	43.20 ± 0.90
B	16.52 ± 0.26	19.00 ± 0.26	21.00 ± 0.26	5.00 ± 0.15	6.00 ± 0.20	8.20 ± 0.15	9.53 ± 0.26	12.07 ± 0.26	13.60 ± 0.26
C	25.40 ± 0.51	27.90 ± 0.60	38.10 ± 0.80	5.00 ± 0.10	10.0 ± 0.20	15.80 ± 0.30	20.32 ± 0.41	25.40 ± 0.51	27.90 ± 0.60
D	30.23 min.	34.70 min.	50.00 min.	11.00 ± 0.25	14.00 ± 0.30	16.80 ± 0.40	24.90 min.	30.23 min.	34.70 min.
E	7.60 ± 0.20	8.10 ± 0.20	8.10 ± 0.20	3.00 ± 0.10	4.00 ± 0.10	5.00 ± 0.10	6.35 ± 0.13	7.60 ± 0.20	8.10 ± 0.20
F	8.90 ± 0.26	10.80 ± 0.26	13.00 ± 0.26	2.00 ± 0.10	2.00 ± 0.10	3.20 ± 0.10	3.18 ± 0.20	4.45 ± 0.13	5.40 ± 0.13
I				1.50 ± 0.05	2.00 ± 0.10	2.50 ± 0.05	3.18 ± 0.13	3.81 ± 0.13	4.10 ± 0.13
C1(mm ³)	0.272	0.276	0.268	1.160	0.514	0.332	0.278	0.226	0.226
Le(mm)	52.6	61.7	81.2	16.7	20.3	26.1	35.9	43.7	50.8
Ae(mm ²)	194.0	225.0	305.0	14.5	39.5	78.5	129.0	194.0	225.0
Ve(mm ³)	10200	13900	24600	240	800	2040	4560	8460	11500
Ac(mm ²)	193.0	225.0	305.0	14.5	39.5	78.5	129.0	193.0	225.0
Aw(mm ²)	100.7	143.6	272.4	8.0	10.0	18.9	29.5	50.4	71.8
W(g/set)	50	70	124	1.1	4.1	11	23	43	59
AI value	PL-7	7800	7700	7900	1800	4100	6400	7600	9300
	PL-9	9710	9630	10270	2110	5130	8000	9500	11630
	PL-11	8110	8010	8220	1870	4260	6660	7900	9670
	PL-F1	4530	4490	4790	990	2390	3730	4430	5430
Core loss	PL-7	5.10	6.95	12.30	0.12	0.40	1.02	2.28	4.23
	PL-9	4.59	6.26	11.07	0.11	0.36	0.92	2.05	3.81
	PL-11	4.59	6.26	11.07	0.11	0.36	0.92	2.05	3.81
	PL-F1	1.22	1.67	2.95	0.03	0.10	0.24	0.55	1.02

PEI CORES



Part No.		PEI5815S
Type	PEI	
Dimensions in mm	A	58.40 ± 1.20
	B	14.60 ± 0.26
	C	38.10 ± 0.80
	D	50.00 min.
	E	8.10 ± 0.20
	F	6.50 ± 0.13
	I	4.10 ± 0.13
Core Set Parameters	C1(mm ⁻¹)	0.224
	Le(mm)	68.3
	Ae(mm ²)	305.0
	Ve(mm ³)	20800
	Ac(mm ²)	305.0
	Aw(mm ²)	136.2
	W(g/set)	106

Electrical Characteristics ⁽¹⁾⁽²⁾	PL-7	9400
	PL-9	12290
	PL-11	9780
	PL-F1	5740
Core loss	PL-7	10.40
	PL-9	9.36
	PL-11	9.36
	PL-F1	2.50

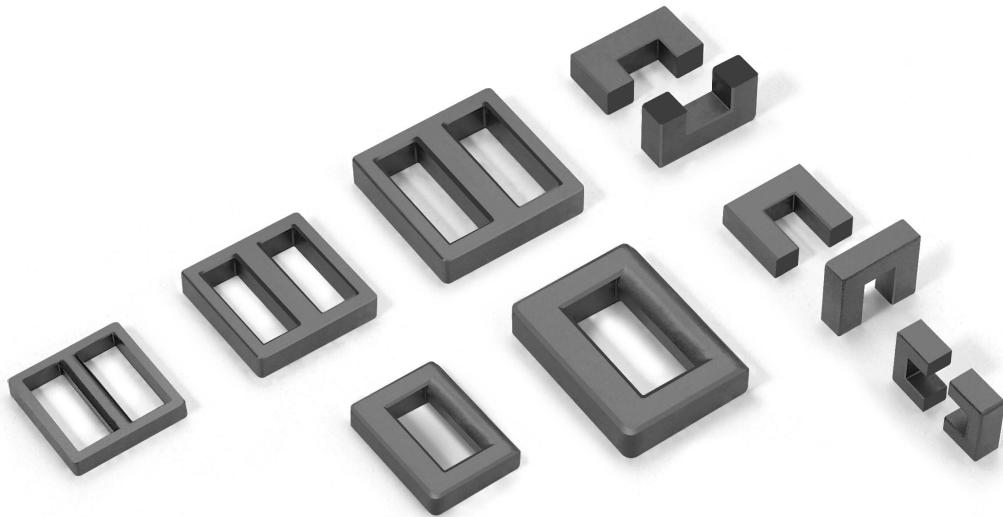
Note : 1) Core loss

- Unit : Watt max.
- Measuring conditions

PL-7, PL-11	: 100 kHz, 200 mT, at 100°C
PL-9	: 100 kHz, 200 mT, at 80°C
PL-F1	: 500 kHz, 50mT, at 80°C

2) Al value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s at 23°C
- Tolerance: $\pm 25\%$



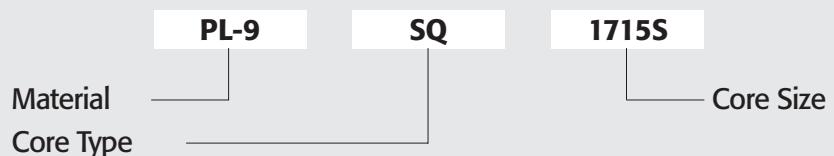
SQ, SQE, UU CORES

SQ17~SQ40

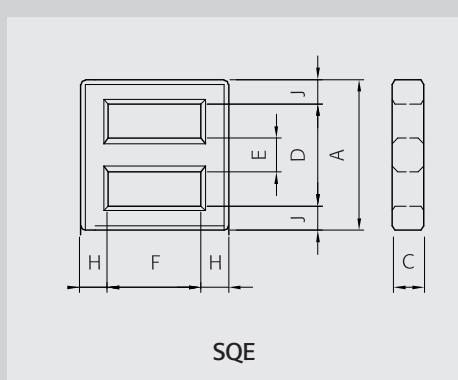
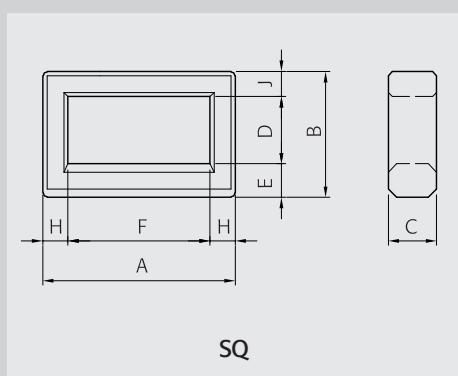
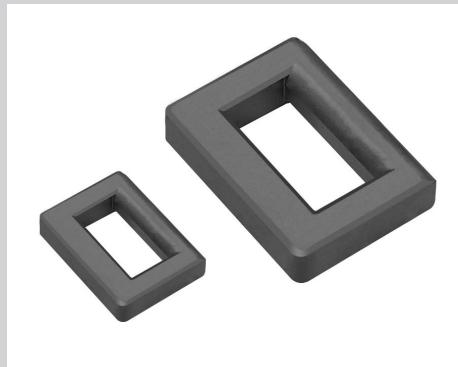
SQE20~SQE35

UU09~UU25

Ordering Code System



SQ, SQE CORES



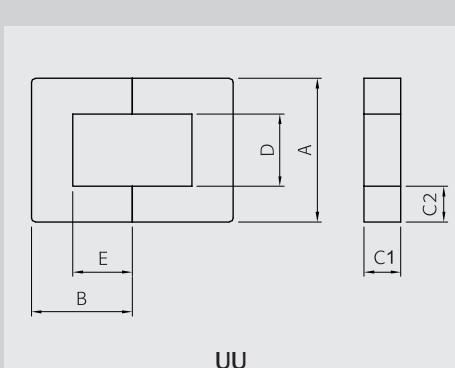
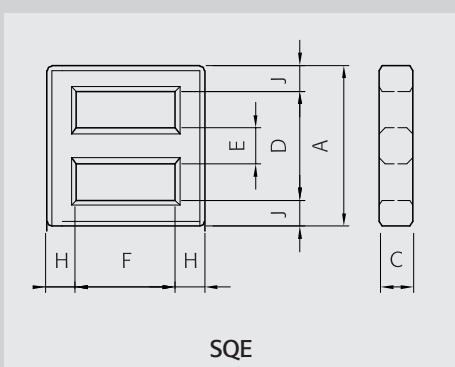
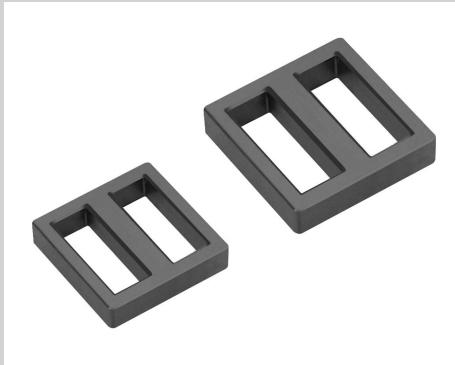
Part No.	SQ1715S	SQ19.5×13.8	SQ2014S	SQ2115S
Type	SQ			
Dimensions in mm	A	17.60 ± 0.20	19.50 ± 0.30	20.60 ± 0.30
	B	15.00 ± 0.20	14.20 ± 0.60	14.10 ± 0.25
	C	3.60 ± 0.20	5.00 ± 0.20	4.60 ± 0.20
	D	4.55 ± 0.20	6.80 min.	7.25 min.
	E	3.75 ± 0.15	4.00 ± 0.20	4.20 ± 0.20
	F		12.90 min.	15.70 min.
	H	3.00 ± 0.15	3.20 ± 0.20	2.30 ± 0.15
Core Set Parameters	J		3.20 ± 0.20	2.40 ± 0.15
	C1(mm⁻¹)	3.220	3.030	4.410
	Le(mm)	45.8	50.6	53.1
	Ae(mm²)	14.2	16.7	12.0
	Ve(mm³)	651	846	639
	Ac(mm²)			
	Aw(mm²)	52.8	91.7	120.0
Electrical Characteristics ⁽¹⁾	W(g/set)	3.2	4.3	3.7
	Al value	SM-50	1950	2050
		SM-60	2340	2490
		SM-70S	2930	3050
		SM-100	3900	4100
			2800	2870

Note : 1) Al value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
- Tolerance: $\pm 25\%$ (SM-100 : $\pm 30\%$)

	SQ2116S	SQ2215S	SQ2618S	SQ4030S	SQE2020S	SQE2215S	SQE2222S	SQE2424S	SQE2626S
	SQ	SQ	SQ	SQ	SQE	SQE	SQE	SQE	SQE
A	21.50 \pm 0.20	21.50 \pm 0.30	25.80 \pm 0.40	40.70 \pm 0.40	20.10 \pm 0.40	21.50 \pm 0.30	23.50 \pm 0.30	24.20 \pm 0.50	26.00 \pm 0.40
B	15.80 \pm 0.25	14.90 \pm 0.25	17.70 \pm 0.30	30.80 \pm 0.40	20.10 \pm 0.40	14.90 \pm 0.20	22.00 \pm 0.30	24.20 \pm 0.30	26.00 \pm 0.20
C	4.60 $^{+0}_{-0.20}$	4.50 \pm 0.20	4.40 \pm 0.20	8.70 \pm 0.30	4.40 \pm 0.20	4.50 \pm 0.20	3.80 \pm 0.20	4.00 \pm 0.30	4.50 $^{+0.10}_{-0.20}$
D	7.00 \pm 0.20	7.60 min.	9.60 min.	13.10 min.	15.70 min.	7.60 min.	19.40 \pm 0.20	19.00 min.	21.00 $^{+0.30}_{-0.20}$
E	4.40 \pm 0.20	4.20 \pm 0.20	4.40 \pm 0.20	8.70 \pm 0.30	4.00 \pm 0.20	4.20 \pm 0.20	3.80 \pm 0.20	4.00 \pm 0.30	4.50 \pm 0.20
F	15.30 \pm 0.20	15.90 min.	18.70 min.	26.60 min.	15.70 min.	15.90 min.	17.60 \pm 0.20	19.00 min.	21.00 $^{+0.30}_{-0.20}$
H	3.10 \pm 0.15	2.65 \pm 0.15	3.30 \pm 0.20	6.90 \pm 0.20	2.00 \pm 0.20	2.65 \pm 0.15	2.20 \pm 0.15	2.40 \pm 0.15	2.50 \pm 0.15
J		2.80 \pm 0.20	3.40 \pm 0.20	8.60 \pm 0.25	2.00 \pm 0.20	2.80	2.05 \pm 0.15	2.40 \pm 0.15	2.50 \pm 0.15
C1(mm³)	2.780	4.190	4.250	1.557	2.930	4.160	3.700	3.460	3.120
Le(mm)	55.0	56.2	81.0	104.0	50.5	56.1	57.2	60.8	66.0
Ae(mm²)	19.8	13.4	19.1	67.1	17.2	13.5	15.5	17.5	21.1
Ve(mm³)	1088	754	1545	7010	871	757	884	1060	1395
Ac(mm²)					17.6	18.9	14.4	16.0	20.3
Aw(mm²)	107.1	127.0	179.5	363.0	97.4	31.0	144.0	149.0	173.3
W(g/set)	4.8	4.1	5.2	36	4.3	4.2	4.3	5.4	6.8
All value	SM-50	2260	1450	1480	3950	2150	1510	1700	1800
	SM-60	2710	1800	1770	4840	2570	1810	2040	2180
	SM-70S	3390	2200	2220	5800	3200	2270	2550	2700
	SM-100	4520	2900	2960	7900	4300	3020	3400	3600

SQE, UU CORES



Part No.	SQE2828S	SQE2930S	SQE3535N	UU0913S
Type	SQE	SQE	SQE	UU
A	28.45 ± 0.55	29.00 ± 0.40	35.30 ± 0.60	8.50 ± 0.15
B	28.45 ± 0.55	30.00 ± 0.40	35.30 ± 0.60	6.35 ± 0.10
C (C1)	5.00 ± 0.30	5.00 ± 0.30	7.50 ± 0.30	3.45 ± 0.10
C2				2.28 ref.
D	22.00 min.	22.60 min.	26.80 min.	3.95 ± 0.15
E	5.00 ± 0.20	5.00 ± 0.25	7.50 ± 0.30	4.10 ± 0.10
F	22.20 min.	23.60 min.	26.80 min.	
H	2.90 ± 0.15	3.00 ± 0.20	4.00 ± 0.20	
J	2.90 ± 0.15	4.00 ± 0.20	4.00 ± 0.20	
Dimensions in mm				
C1(mm ²)	2.670	2.700	1.494	4.050
Le(mm)	71.1	74.3	86.6	31.4
Ae(mm ²)	26.6	27.5	57.9	7.8
Ve(mm ³)	1890	2050	5020	243
Ac(mm ²)	25.0	25.0	56.2	
Aw(mm ²)	199.0	216.0	270.0	32.3
W(g/set)	9.6	10	25	1.2
Core Set Parameters				
Al value	PL-7			560
	PL-9			650
	PL-11			580
Electrical Characteristics ⁽¹⁾⁽²⁾	SM-50	2350	2350	4200
	SM-60	2820	2790	5050
	SM-70S	3600	3500	6300
	SM-100	4700	4650	8400
Core loss	PL-7			0.13
	PL-9			0.12
	PL-11			0.12

Note : 1) Core loss

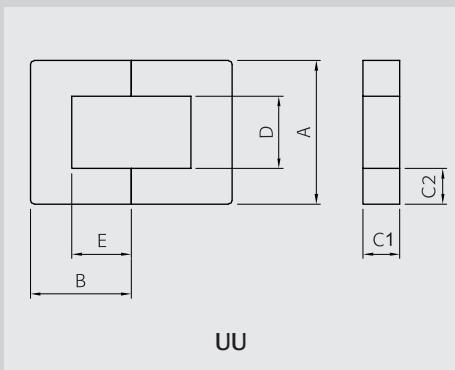
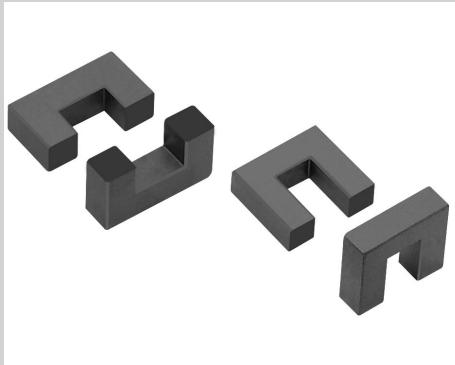
- Unit : Watt max.
- Measuring conditions
PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
PL-9 : 100 kHz, 200 mT, at 80°C

2) Al value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
- Tolerance: $\pm 25\%$ (SM-100 : $\pm 30\%$)

	UU1014S	UU1015S	UU1116S	UU1320S	UU1411S	UU1420S	UU1522S	UU1523N	UU1620S	
	UU	UU	UU	UU	UU	UU	UU	UU	UU	
A	9.80 ± 0.20	10.15 ± 0.20	10.50 ± 0.30	13.50 ± 0.30	14.00 $^{+0}_{-0.50}$	14.00 $^{+0}_{-0.50}$	15.20 ± 0.30	15.20 ± 0.30	16.00 ± 0.30	
B	7.10 ± 0.10	7.40 ± 0.20	7.90 ± 0.20	9.90 $^{+0}_{-0.30}$	5.50 $^{+0.10}_{-0}$	9.55 ± 0.20	11.20 ± 0.25	11.40 ± 0.20	10.00 ± 0.20	
C1	2.70 ± 0.20	2.90 $^{+0.10}_{-0.15}$	5.00 ± 0.30	5.00 $^{+0}_{-0.40}$	8.00 $^{+0}_{-0.50}$	8.00 $^{+0}_{-0.50}$	6.70 $^{+0}_{-0.50}$	6.40 $^{+0}_{-0.20}$	6.00 ± 0.15	
C2	2.80 ± 0.10	2.90 ± 0.10	2.50 ± 0.20	3.50 $^{+0}_{-0.25}$	4.00 $^{+0}_{-0.50}$	4.00 $^{+0}_{-0.50}$	5.00 ref.	5.00 ± 0.20	4.50 ref.	
D	4.20 ± 0.20	4.15 min.	6.50 ± 0.30	6.50 $^{+0.50}_{-0}$	6.25 min.	5.60 min.	5.20 ± 0.30	5.20 ± 0.30	6.70 min.	
E	4.20 ± 0.20	4.20 $^{+0.35}_{-0}$	5.40 ± 0.20	6.10 $^{+0.30}_{-0}$	1.80 $^{+0.10}_{-0}$	5.60 min.	5.70 $^{+0.70}_{-0}$	6.40 ± 0.20	6.00 ± 0.15	
F										
H										
J										
C1(mm ³)	4.460	4.190	3.240	3.010	1.100	1.630	1.551	1.616	1.996	
Le(mm)	34.1	35.5	40.5	49.2	31.6	47.5	50.5	51.7	51.2	
Ae(mm ²)	7.7	8.5	12.4	16.3	28.7	29.1	32.5	31.9	25.6	
Ve(mm ³)	261	300	505	803	907	1380	1640	1650	1310	
Ac(mm ²)										
Aw(mm ²)	35.2	38.0	59.4	84.3	23.2	67.3	62.9	66.5	84.0	
W(g/set)	1.3	1.5	2.5	4.0	4.4	6.7	8.5	8.6	6.7	
AI value	PL-7	500	515	720	800	2000	1300	1400	1360	1100
	PL-9	560	600	830	950	2500	1700	1620	1600	1270
	PL-11	520	540	750	830	2100	1400	1500	1400	1100
	SM-50	1010	830	1250	1400	3800	2600	2700	2600	2150
	SM-60	1212	996	1500	1680	4600	3100	3240	3120	2580
	SM-70S	1180	1020	1550	1750	5700	3900	3500	3400	2770
	SM-100	1460	1500	2250	2350	7600	5100	4570	4450	3600
Core loss	PL-7	0.14	0.15	0.26	0.40	0.46	0.70	0.83	0.83	0.66
	PL-9	0.11	0.13	0.21	0.33	0.42	0.63	0.68	0.68	0.55
	PL-11	0.11	0.13	0.21	0.33	0.42	0.63	0.68	0.68	0.55

UU CORES



Part No.		UU1622S	UU1733S	UU2027S	UU2036S
Type		UU	UU	UU	UU
Dimensions in mm	A	16.00 ± 0.30	17.00 ± 0.30	20.50 ± 0.30	20.00 ± 0.30
	B	11.00 ± 0.20	16.60 ± 0.20	13.50 $^{+0.50}_{-0}$	18.10 ± 0.20
	C1	6.00 ± 0.15	6.00 ± 0.10	11.00 ± 0.25	6.00 ± 0.20
	C2	4.50 ref.	4.50 ref.	5.00 ± 0.15	6.00 ref.
	D	6.70 min.	8.00 ± 0.20	10.50 ± 0.30	8.00 ± 0.25
	E	7.00 ± 0.15	12.00 ± 0.20	8.50 $^{+0.50}_{-0}$	12.10 ± 0.20
Core Set Parameters					
	C1(mm⁻¹)	2.140	2.910	1.270	2.310
	Le(mm)	55.2	78.3	71.0	83.2
	Ae(mm²)	25.7	26.9	55.8	36.0
	Ve(mm³)	1420	2100	3962	2990
	Aw(mm²)	98.0	192.0	178.5	193.0
	W(g/set)	7.3	10	21	15
Electrical Characteristics ⁽¹⁾⁽²⁾					
AL value	PL-7	1050	750	1760	980
	PL-9	1200	880	2060	1160
	PL-11	1100	800	1800	1000
	SM-50	2100	1600	3650	2100
	SM-60	2520	1920	4380	2520
	SM-70S	2700	2150	5475	2750
	SM-100	3500	2600	7300	3300
	Core loss	PL-7	0.72	1.06	2.02
Core loss	PL-9	0.59	0.87	1.82	1.23
	PL-11	0.59	0.87	1.82	1.23

Note : 1) Core loss

- Unit : Watt max.
- Measuring conditions
PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
PL-9 : 100 kHz, 200 mT, at 80°C

2) AL value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 100T_s, at 23°C
- Tolerance: $\pm 25\%$ (SM-100 Mirror-grind : $\pm 30\%$)

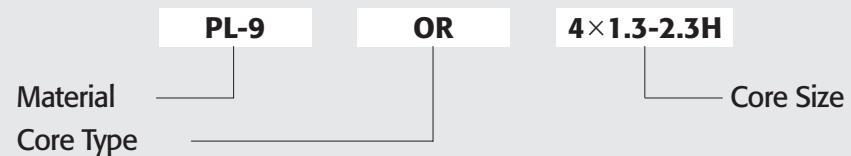
	UU2132S	UU2323S	UU2528S	UU2537S
	UU	UU	UU	UU
A	20.80 \pm 0.60	23.00 \pm 0.50	25.00 \pm 0.40	24.50 \pm 0.70
B	15.80 $^{+0.40}_{-0.30}$	11.40 \pm 0.20	14.00 \pm 0.20	18.40 \pm 0.50
C1	7.70 $^{+0}_{-0.50}$	6.40 \pm 0.20	7.00 \pm 0.30	7.30 \pm 0.30
C2	7.25 ref.	5.00 \pm 0.20	7.00 \pm 0.20	7.30 ref.
D	6.00 $^{+0.60}_{-0}$	13.00 \pm 0.30	11.00 \pm 0.40	9.90 \pm 0.30
E	8.00 $^{+0.60}_{-0}$	6.40 \pm 0.20	7.00 \pm 0.30	10.85 \pm 0.25
C1(mm³)	1.270	1.366	1.469	1.510
Le(mm)	68.6	43.9	72.0	84.4
Ae(mm²)	54.0	32.1	49.0	55.8
Ve(mm³)	3700	1411	3520	4709
Aw(mm²)	104.0	166.4	154.0	214.8
W(g/set)	19	166	18	26
Al value	PL-7	1760	1600	1530
	PL-9	2060	2000	1800
	PL-11	1800	1700	1600
	SM-50	3650	3400	3150
	SM-60	4380	4100	3780
	SM-70S	4700	5100	4200
	SM-100	5880	6800	5100
Core loss	PL-7	2.23	0.72	1.77
	PL-9	1.52	0.65	1.45
	PL-11	1.52	0.65	1.45
				2.17



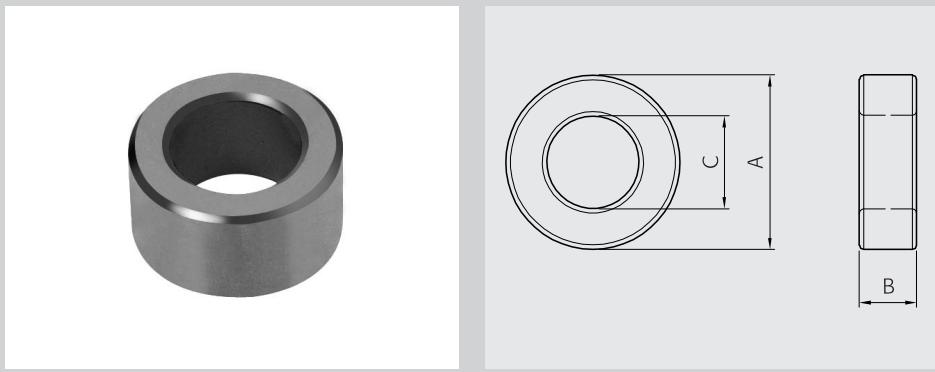
TOROID CORES

OR2~OR78

Ordering Code System



OR CORES



Dimensions in mm				Core Set Parameters					
Part No.	A	B	C	C1(mm^{-1})	Le(mm)	$\text{Ae}(\text{mm}^2)$	$\text{Ve}(\text{mm}^3)$	$\text{Aw}(\text{mm}^2)$	W(g)
OR2.5×1.3-1.3H	2.54 ±0.30	1.27 ±0.15	1.27 ±0.10	7.140	5.5	0.8	4.3	1.3	0.1
OR3.2×2-1.6H	3.20 ±0.20	2.00 ±0.15	1.60 ±0.10	4.530	7.0	1.5	11	2.0	0.1
OR3.4×1.78-1.78H	3.43 ±0.20	1.78 ±0.13	1.78 ±0.13	5.390	7.6	1.4	11	2.5	0.1
OR4×1-2H	4.00 ±0.20	1.00 ±0.20	2.00 ±0.20	9.060	8.7	1.0	8.4	3.1	0.1
OR4×1.3-2.3H	3.94 ±0.20	1.27 ±0.20	2.24 ±0.20	8.760	9.2	1.1	10	3.9	0.1
OR4×1.6-2H	4.00 ±0.20	1.60 ±0.20	2.00 ±0.20	5.670	8.7	1.5	13	3.1	0.1
OR4×2-2H	4.00 ±0.20	2.00 ±0.20	2.00 ±0.20	4.530	8.7	1.9	17	3.1	0.1
OR5×0.95-1.52H	5.00 ±0.20	0.95 ±0.06	1.52 ±0.12	5.550	8.2	1.5	12	1.8	0.1
OR5.8×1.5-3H	5.80 ±0.30	1.50 ±0.30	3.00 ±0.30	6.350	12.9	2.0	26	7.1	0.1
OR5.8×2.5-3H	5.80 ±0.30	2.50 ±0.30	3.00 ±0.30	3.810	12.9	3.4	43	7.1	0.2
OR5.8×3-3H	5.80 ±0.30	3.00 ±0.30	3.00 ±0.30	3.180	12.9	4.1	52	7.1	0.3
OR6×1-3H	6.00 ±0.30	1.00 ±0.30	3.00 ±0.30	9.060	13.1	1.4	19	7.1	0.1
OR6×1.5-3H	6.00 ±0.30	1.50 ±0.30	3.00 ±0.30	6.040	13.1	2.2	28	7.1	0.2
OR6×2-3H	6.00 ±0.30	2.00 ±0.30	3.00 ±0.30	4.530	13.1	2.9	38	7.1	0.2
OR6×2.5-3H	6.00 ±0.30	2.50 ±0.30	3.00 ±0.30	3.630	13.1	3.6	47	7.1	0.2
OR6×3-3H	6.00 ±0.30	3.00 ±0.30	3.00 ±0.30	3.020	13.1	4.3	57	7.1	0.3
OR8×2-4H	8.00 ±0.30	2.00 ±0.20	4.00 ±0.30	4.530	17.4	3.8	67	12.6	0.4
OR8×3-4H	8.00 ±0.30	3.00 ±0.30	4.00 ±0.30	3.020	17.4	5.8	100	12.6	0.5
OR8×4-4H	8.00 ±0.30	4.00 ±0.30	4.00 ±0.30	2.270	17.4	7.7	134	12.6	0.7
OR8×6-4H	8.00 ±0.30	6.00 ±0.30	4.00 ±0.30	1.510	17.4	11.5	201	12.6	1.0
OR9×3-5H	9.00 ±0.30	3.00 ±0.20	5.00 ±0.20	3.560	20.8	5.8	121	19.6	0.6
OR9.5×4.77-4.75H	9.53 ±0.38	4.78 ±0.20	4.75 ±0.20	1.890	20.7	11.0	227	17.7	1.2
OR10×4-6H	10.00 ±0.30	4.00 ±0.25	6.00 ±0.30	3.080	24.1	7.8	188	28.3	1.0
OR10×5-5H	10.00 ±0.20	5.00 ±0.30	5.00 ±0.20	1.810	21.8	12.0	262	19.6	1.4
OR10×6-6H	10.00 ±0.30	6.00 ±0.30	6.00 ±0.30	2.050	24.1	11.7	283	28.3	1.5
OR12×4-6H	12.00 ±0.30	4.00 ±0.25	6.00 ±0.30	2.270	26.1	11.5	301	28.3	1.6
OR12.5×5-7.4H	12.50 ±0.25	5.00 ±0.25	7.40 ±0.25	2.400	29.9	12.5	372	43.0	1.9
OR12.7×3.1-8.1H	12.70 ±0.25	3.10 ±0.25	8.10 ±0.20	4.510	31.6	7.0	222	51.5	1.2

Note : 1) Core loss

- Unit : Watt max.
- Measuring conditions
PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
PL-9 : 100 kHz, 200 mT, at 80°C

2) AL value

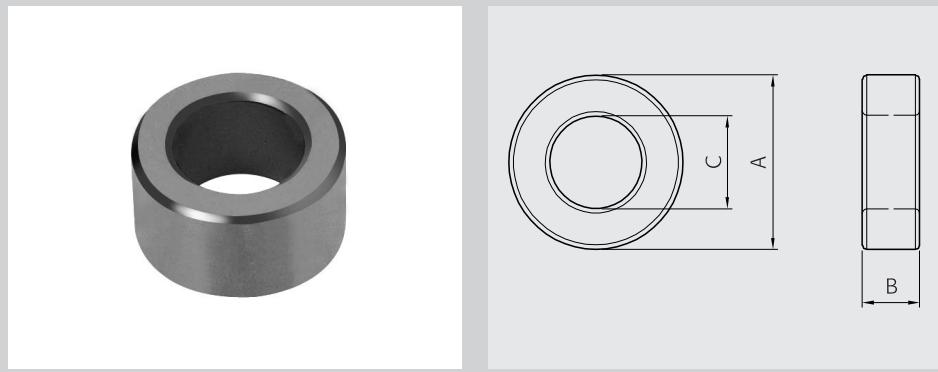
- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 10T_s, 23°C
- Tolerance: ±25% (SM-100, SM-150 : ±30%)

3) Coating

- Toroid cores can be coated with epoxy or parylene.
- Isolation voltage : epoxy - DC 1000 V min., parylene - DC 750 V min.

Part No.	Electrical Characteristics											Core loss		
	AL value											PL-7	PL-9	PL-11
OR2.5×1.3-1.3H	420	530	440	140	410	760	880	1060	1320	1760	2600	0.002	0.002	0.002
OR3.2×2-1.6H	670	830	690	220	640	1200	1400	1700	2100	2800	4200	0.01	0.01	0.01
OR3.4×1.78-1.78H	560	700	580	190	540	1000	1200	1400	1700	2300	3500	0.01	0.01	0.01
OR4×1-2H	330	420	350	110	320	600	690	830	1000	1400	2100	0.004	0.004	0.004
OR4×1.3-2.3H	340	430	360	110	330	620	720	860	1100	1400	2200	0.00	0.00	0.00
OR4×1.6-2H	530	670	550	180	510	950	1110	1300	1700	2200	3300	0.01	0.01	0.01
OR4×2-2H	670	830	690	220	640	1200	1400	1700	2100	2800	4200	0.01	0.01	0.01
OR5×0.95-1.52H	540	680	570	180	520	970	1130	1360	1700	2300	3400	0.01	0.01	0.01
OR5.8×1.5-3H	470	590	490	160	460	850	990	1190	1500	2000	3000	0.01	0.01	0.01
OR5.8×2.5-3H	790	990	820	260	760	1400	1600	2000	2500	3300	4900	0.02	0.02	0.02
OR5.8×3-3H	950	1190	990	320	910	1700	2000	2400	3000	4000	5900	0.03	0.02	0.02
OR6×1-3H	330	420	350	110	320	600	690	830	1000	1400	2100	0.01	0.01	0.01
OR6×1.5-3H	500	620	520	170	480	890	1040	1250	1600	2100	3100	0.01	0.01	0.01
OR6×2-3H	670	830	690	220	640	1200	1400	1700	2100	2800	4200	0.02	0.02	0.02
OR6×2.5-3H	830	1040	870	280	800	1500	1700	2100	2600	3500	5200	0.02	0.02	0.02
OR6×3-3H	1000	1250	1040	330	960	1800	2100	2500	3100	4200	6200	0.03	0.03	0.03
OR8×2-4H	670	830	690	220	640	1200	1400	1700	2100	2800	4200	0.03	0.03	0.03
OR8×3-4H	1000	1250	1040	330	960	1800	2100	2500	3100	4200	6200	0.05	0.05	0.05
OR8×4-4H	1300	1700	1400	440	1300	2400	2800	3300	4200	5500	8300	0.07	0.06	0.06
OR8×6-4H	2000	2500	2100	670	1900	3600	4200	5000	6200	8300	12500	0.10	0.09	0.09
OR9×3-5H	800	1100	900	280	800	1500	1800	2100	2600	3500	5300	0.06	0.06	0.06
OR9.5×4.77-4.75H	1600	2000	1700	530	1500	2900	3300	4000	5000	6700	10000	0.11	0.10	0.10
OR10×4-6H	1000	1200	1000	330	900	1800	2000	2400	3100	4100	6100	0.09	0.09	0.09
OR10×5-5H	1700	2100	1700	560	1600	3000	3500	4200	5200	6900	10400	0.13	0.12	0.12
OR10×6-6H	1500	1800	1500	490	1400	2600	3100	3700	4600	6100	9200	0.14	0.13	0.13
OR12×4-6H	1300	1700	1400	440	1300	2400	2800	3300	4200	5500	8300	0.15	0.14	0.14
OR12.5×5-7.4H	1300	1600	1300	420	1200	2300	2600	3100	3900	5200		0.19	0.17	0.17
OR12.7×3.1-8.1H	700	800	700	220	600	1200	1400	1700	2100	2800		0.11	0.10	0.10

OR CORES



Part No.	Dimensions in mm			Core Set Parameters					
	A	B	C	C1(mm^{-1})	Le(mm)	$\text{Ae}(\text{mm}^2)$	$\text{Ve}(\text{mm}^3)$	$\text{Aw}(\text{mm}^2)$	W(g)
OR12.7×4.7-7.1H	12.70 ± 0.30	4.70 ± 0.25	7.10 ± 0.30	2.300	29.4	12.8	376	39.6	2.0
OR12.7×6-8.1H	12.70 ± 0.25	6.00 ± 0.25	8.10 ± 0.25	2.330	31.6	13.6	429	51.5	2.2
OR12.7×6.35-7.92H	12.70 ± 0.25	6.35 ± 0.25	7.92 ± 0.20	2.100	31.2	14.9	465	49.2	2.4
OR12.7×6.35-8.1H	12.70 ± 0.25	6.35 ± 0.25	8.10 ± 0.25	2.200	31.6	14.4	454	51.5	2.4
OR13×5-8H	13.00 ± 0.50	5.00 ± 0.30	8.00 $^{+0}_{-1.00}$	2.590	31.7	12.3	389	50.2	2.0
OR13×5.4-7H	12.90 ± 0.25	5.40 ± 0.20	7.00 ± 0.20	1.900	29.4	15.4	454	38.5	2.4
OR13×6-8H	13.00 ± 0.50	6.00 ± 0.30	8.00 $^{+0}_{-1.00}$	2.160	31.7	14.7	467	50.2	2.4
OR13×6.5-8H	13.00 ± 0.50	6.50 ± 0.30	8.00 $^{+0}_{-1.00}$	1.990	31.7	15.9	506	50.2	2.6
OR14×4-8H	14.00 ± 0.20	4.00 ± 0.20	8.00 ± 0.20	2.810	32.8	11.7	384	50.2	2.0
OR14×4-7.5H	14.00 ± 0.30	4.00 ± 0.30	7.50 ± 0.30	2.520	31.7	12.6	399	44.2	2.1
OR14×5-7.5H	14.00 ± 0.30	5.00 ± 0.30	7.50 ± 0.30	2.010	31.7	15.7	498	44.2	2.6
OR14×5-9H	14.00 ± 0.30	5.00 ± 0.30	9.00 ± 0.30	2.840	35.0	12.3	430	63.6	2.2
OR14×6.5-7.5H	14.00 ± 0.30	6.50 ± 0.30	7.50 ± 0.30	1.550	31.7	20.5	648	44.2	3.4
OR14×7-7.5H	14.00 ± 0.30	7.00 ± 0.30	7.50 ± 0.30	1.440	31.7	22.0	698	44.2	3.6
OR14×7-8H	14.00 ± 0.20	7.00 ± 0.20	8.00 ± 0.20	1.600	32.8	20.5	672	50.2	3.5
OR16×4-9.6H	16.00 ± 0.30	4.00 ± 0.30	9.60 ± 0.30	3.080	38.5	12.5	482	72.3	2.5
OR16×4-12H	16.00 ± 0.30	4.00 ± 0.30	12.00 ± 0.30	5.460	43.4	8.0	345	113.0	1.8
OR16×4.3-12H	16.00 ± 0.30	4.30 ± 0.30	12.00 ± 0.30	5.080	43.4	8.5	371	113.0	1.9
OR16×5-9.6H	16.00 ± 0.30	5.00 ± 0.30	9.60 ± 0.30	2.460	38.5	15.7	603	72.3	3.1
OR16×5-12H	16.00 ± 0.30	5.00 ± 0.30	12.00 ± 0.30	4.370	43.4	9.9	431	113.0	2.2
OR16×6.3-9.6H	16.00 ± 0.30	6.30 ± 0.30	9.60 ± 0.30	1.950	38.5	19.7	760	72.3	4.0
OR16×8-8H	16.00 ± 0.50	8.00 ± 0.40	8.00 ± 0.40	1.130	34.8	30.7	1071	50.2	5.9
OR16×8-12H	16.00 ± 0.30	8.00 ± 0.30	12.00 ± 0.30	2.730	43.4	15.9	689	113.0	3.6
OR16×8-12HT	15.80 ± 0.30	8.00 ± 0.30	11.90 ± 0.30	2.790	42.9	15.4	661	111.2	3.4
OR16×11-8H	16.00 ± 0.50	11.00 ± 0.40	8.00 ± 0.40	0.820	34.8	42.3	1472	50.2	7.6
OR19×5-10H	19.00 ± 0.30	5.00 ± 0.30	9.80 ± 0.40	1.900	42.1	22.2	934	75.4	4.9
OR19×6-13H	19.00 ± 0.30	6.00 ± 0.20	13.00 ± 0.30	2.760	49.1	17.8	873	132.7	4.5
OR19×10-10H	19.00 ± 0.40	10.30 ± 0.30	9.80 ± 0.40	0.920	42.1	45.7	1923	75.4	10

Note : 1) Core loss

- Unit : Watt max.
- Measuring conditions
PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
PL-9 : 100 kHz, 200 mT, at 80°C

2) AL value

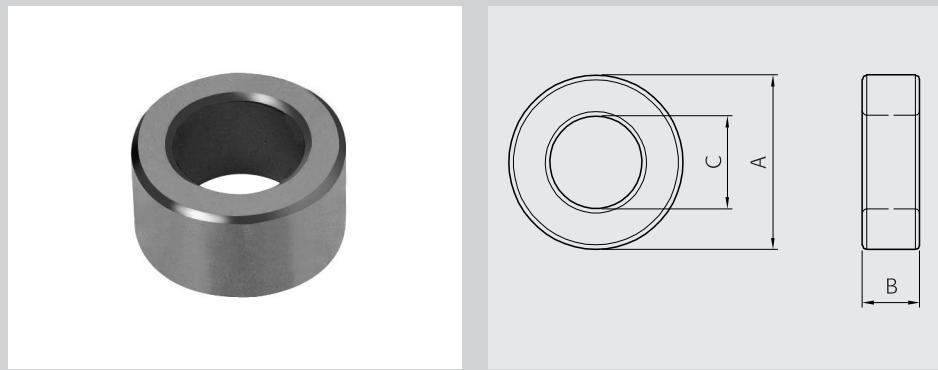
- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 10T_s, 23°C
- Tolerance: ±25% (SM-100 : ±30%)

3) Coating

- Toroid cores can be coated with epoxy or parylene.
- Isolation voltage : epoxy - DC 1000 V min., parylene - DC 750 V min.

Part No.	Electrical Characteristics										Core loss		
	AL value										PL-7	PL-9	PL-11
OR12.7×4.7-7.1H	1300	1600	1400	440	1300	2400	2700	3300	4100	5500	0.19	0.17	0.17
OR12.7×6-8.1H	1300	1600	1300	430	1200	2300	2700	3200	4000	5400	0.21	0.19	0.19
OR12.7×6.35-7.92H	1400	1800	1500	480	1400	2600	3000	3600	4500	6000	0.23	0.21	0.21
OR12.7×6.35-8.1H	1400	1700	1400	460	1300	2500	2900	3400	4300	5700	0.23	0.20	0.20
OR13×5-8H	1200	1500	1200	390	1100	2100	2400	2900	3600	4900	0.19	0.18	0.18
OR13×5.4-7H	1600	2000	1700	530	1500	2800	3300	4000	5000	6600	0.23	0.20	0.20
OR13×6-8H	1400	1700	1500	470	1300	2500	2900	3500	4400	5800	0.23	0.21	0.21
OR13×6.5-8H	1500	1900	1600	510	1500	2700	3200	3800	4700	6300	0.25	0.23	0.23
OR14×4-8H	1100	1300	1100	360	1000	1900	2200	2700	3400	4500	0.19	0.17	0.17
OR14×4-7.5H	1200	1500	1200	400	1100	2100	2500	3000	3700	5000	0.20	0.18	0.18
OR14×5-7.5H	1500	1900	1600	500	1400	2700	3100	3800	4700	6300	0.25	0.22	0.22
OR14×5-9H	1100	1300	1100	350	1000	1900	2200	2700	3300	4400	0.22	0.19	0.19
OR14×6.5-7.5H	1900	2400	2000	650	1900	3500	4100	4900	6100	8100	0.32	0.29	0.29
OR14×7-7.5H	2100	2600	2200	700	2000	3800	4400	5200	6500	8700	0.35	0.31	0.31
OR14×7-8H	1900	2400	2000	630	1800	3400	3900	4700	5900	7900	0.34	0.31	0.31
OR16×4-9.6H	1000	1200	1000	330	900	1800	2000	2400	3100	4100	0.24	0.22	0.22
OR16×4-12H	600	700	600	180	500	1000	1200	1400	1700	2300	0.17	0.16	0.16
OR16×4.3-12H	600	700	600	200	600	1100	1200	1500	1900	2500	0.19	0.17	0.17
OR16×5-9.6H	1200	1500	1300	410	1200	2200	2600	3100	3800	5100	0.30	0.27	0.27
OR16×5-12H	700	900	700	230	700	1200	1400	1700	2200	2900	0.22	0.19	0.19
OR16×6.3-9.6H	1500	1900	1600	520	1500	2800	3200	3900	4800	6400	0.38	0.34	0.34
OR16×8-8H	2700	3300	2800	890	2600	4800	5600	6700	8300	11100	0.55	0.49	0.49
OR16×8-12H	1100	1400	1200	370	1100	2000	2300	2800	3500	4600	0.34	0.31	0.31
OR16×8-12HT	1100	1400	1100	360	1000	1900	2300	2700	3400	4500	0.34	0.30	0.30
OR16×11-8H	3700	4600	3800	1230	3500	6600	7700	9200	11500	15300	0.75	0.68	0.68
OR19×5-10H	1600	2000	1700	530	1500	2800	3300	4000	5000	6600	0.47	0.42	0.42
OR19×6-13H	1100	1400	1100	360	1000	2000	2300	2700	3400	4600	0.44	0.39	0.39
OR19×10-10H	3300	4100	3400	1090	3100	5900	6800	8200	10200	13700	0.96	0.87	0.87

OR CORES



Part No.	Dimensions in mm			Core Set Parameters					
	A	B	C	C1(mm^{-1})	Le(mm)	$\text{Ae}(\text{mm}^2)$	$\text{Ve}(\text{mm}^3)$	$\text{Aw}(\text{mm}^2)$	W(g)
OR19×11-13H	19.00 ± 0.30	11.00 ± 0.20	13.00 ± 0.30	1.510	49.1	32.6	1600	132.7	8.3
OR20×7-10H	20.00 ± 0.40	7.00 ± 0.30	10.00 ± 0.30	1.290	43.6	33.6	1465	78.5	7.6
OR20×7.25-10H	20.00 ± 0.40	7.25 ± 0.30	10.00 ± 0.30	1.250	43.6	34.8	1517	78.5	7.9
OR20×8-10H	20.00 ± 0.40	8.00 ± 0.30	10.00 ± 0.30	1.130	43.6	38.4	1674	78.5	8.7
OR20×10-10H	20.00 ± 0.40	10.00 ± 0.30	10.00 ± 0.30	0.910	43.6	48.1	2092	78.5	10.9
OR22×8-14H	22.00 ± 0.40	8.00 ± 0.35	14.00 ± 0.35	1.740	54.7	31.5	1720	153.9	8.9
OR22.1×6.35-13.7H	22.10 ± 0.40	6.35 ± 0.25	13.70 ± 0.30	2.070	54.2	26.2	1417	147.3	7.4
OR22.1×8-13.7H	22.10 ± 0.40	8.00 ± 0.25	13.70 ± 0.30	1.640	54.2	33.0	1785	147.3	9.3
OR22.1×11-13.7H	22.10 ± 0.40	11.00 ± 0.25	13.70 ± 0.30	1.190	54.2	45.3	2454	147.3	13
OR22.1×12.7-13.7H	22.10 ± 0.40	12.75 ± 0.25	13.70 ± 0.30	1.030	54.2	52.5	2845	147.3	15
OR25×6-15H	25.00 ± 0.30	6.00 ± 0.30	15.00 ± 0.30	2.050	60.2	29.4	1767	176.6	9
OR25×10-15H	25.00 ± 0.30	10.00 ± 0.30	15.00 ± 0.30	1.230	60.2	48.9	2944	176.6	15
OR25×12-15H	25.00 ± 0.30	12.00 ± 0.30	15.00 ± 0.30	1.030	60.2	58.7	3533	176.6	18
OR25×12.5-15H	25.00 ± 0.30	12.00 ± 0.30	15.00 ± 0.30	0.980	60.2	61.2	3681	176.6	19
OR25×12.7-15H	25.00 ± 0.30	12.70 ± 0.30	15.00 ± 0.30	0.970	60.2	62.1	3739	176.6	19
OR25×13-15H	25.00 ± 0.30	13.00 ± 0.30	15.00 ± 0.30	0.950	60.2	63.6	3828	176.6	20
OR25×15-15H	25.00 ± 0.30	15.00 ± 0.30	15.00 ± 0.30	0.820	60.2	73.4	4417	176.6	23
OR26×15-16H	26.00 ± 0.40	15.00 ± 0.30	16.00 ± 0.30	0.860	63.5	73.5	4666	201.0	24
OR28×13-16H	28.00 ± 0.40	13.00 ± 0.30	16.00 ± 0.40	0.860	65.6	76.0	4988	201.0	26
OR28×16-16H	28.00 ± 0.40	16.00 ± 0.30	16.00 ± 0.40	0.700	65.6	93.5	6139	201.0	32
OR29×7.5-19H	29.00 ± 0.75	7.50 ± 0.55	19.00 ± 0.75	1.980	73.2	37.0	2704	283.4	14
OR29×12.5-19HU	29.00 ± 0.50	12.50 ± 0.55	19.00 ± 0.75	1.190	73.2	61.6	4507	283.4	22
OR29×15-19H	29.00 ± 0.50	15.00 ± 0.55	19.00 ± 0.75	0.990	73.2	73.9	5409	283.4	28
OR29×15-19HU	29.00 ± 0.50	15.00 ± 0.55	19.00 ± 0.75	0.990	73.2	73.9	5409	283.4	28
OR29×15.2-19H	29.00 ± 0.75	15.20 ± 0.55	19.00 ± 0.75	0.980	73.2	74.9	5481	283.4	29
OR29×16-19H	29.00 ± 0.75	16.00 ± 0.55	19.00 ± 0.75	0.930	73.2	78.8	5769	283.4	30
OR31×13-19H	31.00 $^{+0.50}_{-0.70}$	13.00 ± 0.40	19.00 ± 0.50	0.990	75.5	76.5	5772	283.4	30
OR31×17-19H	31.00 $^{+0.50}_{-0.70}$	17.00 ± 0.40	19.00 ± 0.50	0.760	75.5	100.0	7550	283.4	39

Note : 1) Core loss

- Unit : Watt max.
- Measuring conditions
PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
PL-9 : 100 kHz, 200 mT, at 80°C

2) AL value

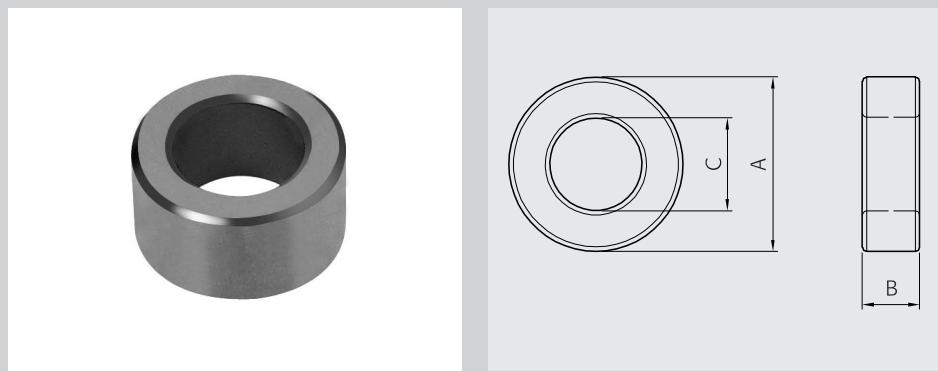
- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 10T_s, 23°C
- Tolerance: ±25% (SM-100 : ±30%)

3) Coating

- Toroid cores can be coated with epoxy or parylene.
- Isolation voltage : epoxy - DC 1000 V min., parylene - DC 750 V min.

Part No.	Electrical Characteristics										Core loss		
	AL value										PL-7	PL-9	PL-11
	PL-7	PL-9	PL-11	SM-8T	SM-23T	SM-43T	SM-50	SM-60	SM-70S	SM-100			
OR19×11-13H	2000	2500	2100	670	1900	3600	4200	5000	6200	8300	0.80	0.72	0.72
OR20×7-10H	2300	2900	2400	780	2200	4200	4900	5800	7300	9700	0.73	0.66	0.66
OR20×7.25-10H	2400	3000	2500	800	2300	4300	5000	6000	7500	10100	0.76	0.68	0.68
OR20×8-10H	2700	3300	2800	890	2600	4800	5600	6700	8300	11100	0.84	0.75	0.75
OR20×10-10H	3300	4200	3500	1110	3200	5900	6900	8300	10400	13800	1.05	0.94	0.94
OR22×8-14H	1700	2200	1800	580	1700	3100	3600	4300	5400	7200	0.86	0.77	0.77
OR22.1×6.35-13.7H	1500	1800	1500	490	1400	2600	3000	3600	4600	6100	0.71	0.64	0.64
OR22.1×8-13.7H	1800	2300	1900	610	1800	3300	3800	4600	5700	7700	0.89	0.80	0.80
OR22.1×11-13.7H	2500	3200	2600	850	2400	4500	5300	6300	7900	10600	1.23	1.11	1.11
OR22.1×12.7-13.7H	2900	3700	3100	980	2800	5200	6100	7300	9200	12200	1.42	1.28	1.28
OR25×6-15H	1500	1800	1500	490	1400	2600	3100	3700	4600	6100	0.88	0.80	0.80
OR25×10-15H	2500	3100	2600	820	2400	4400	5100	6100	7700	10200	1.47	1.33	1.33
OR25×12-15H	2900	3700	3100	980	2800	5200	6100	7300	9200	12200	1.77	1.59	1.59
OR25×12.5-15H	3100	3800	3200	1030	2900	5500	6400	7700	9000	12800	1.84	1.66	1.66
OR25×12.7-15H	3100	3900	3200	1040	3000	5600	6500	7800	9700	13000	1.87	1.68	1.68
OR25×13-15H	3200	4000	3300	1060	3100	5700	6600	7900	9900	13200	1.91	1.72	1.72
OR25×15-15H	3700	4600	3800	1230	3500	6600	7700	9200	11500	15300	2.21	1.99	1.99
OR26×15-16H	3500	4400	3700	1170	3400	6300	7300	8800	11000	14600	2.33	2.10	2.10
OR28×13-16H	3500	4400	3700	1170	3300	6300	7300	8800	11000	14600	2.49	2.25	2.25
OR28×16-16H	4300	5400	4500	1440	4100	7700	9000	10800	13500	18000	3.07	2.76	2.76
OR29×7.5-19H	1500	1900	1600	510	1500	2700	3200	3800	4800	6300	1.35	1.22	1.22
OR29×12.5-19HU	2500	3200	2600	850	2400	4500	5300	6300	7900	10600	2.30	2.07	2.07
OR29×15-19H	3000	3800	3200	1020	2900	5500	6300	7600	9500	12700	2.70	2.43	2.43
OR29×15-19HU	3000	3800	3200	1020	2900	5500	6300	7600	9500	12700	2.76	2.49	2.49
OR29×15.2-19H	3100	3900	3200	1030	3000	5500	6400	7700	9600	12800	2.74	2.47	2.47
OR29×16-19H	3200	4100	3400	1080	3100	5800	6800	8100	10100	13500	2.88	2.60	2.60
OR31×13-19H	3000	3800	3200	1020	2900	5500	6300	7600	9500	12700	2.89	2.60	2.60
OR31×17-19H	4000	5000	4100	1320	3800	7100	8300	9900	12400	16500	3.85	3.47	3.47

OR CORES



Part No.	Dimensions in mm			Core Set Parameters					
	A	B	C	C1(mm^{-1})	Le(mm)	$\text{Ae}(\text{mm}^2)$	$\text{Ve}(\text{mm}^3)$	$\text{Aw}(\text{mm}^2)$	W(g)
OR31.8×11.5-19H	31.75 ± 0.60	11.50 ± 0.40	19.00 ± 0.50	1.060	76.3	71.7	5474	283.4	28
OR36×10-23H	36.00 ± 0.50	10.00 ± 0.30	23.00 ± 0.50	1.400	89.7	63.9	5731	415.3	30
OR36×10-23HU	36.00 ± 0.50	10.00 ± 0.30	23.00 ± 0.50	1.400	89.7	63.9	5731	415.3	30
OR36×15-23H	36.00 ± 0.50	15.00 ± 0.30	23.00 ± 0.50	0.930	89.7	95.9	8596	415.3	43
OR36×15-23HU	36.00 ± 0.50	15.00 ± 0.30	23.00 ± 0.50	0.940	89.6	95.8	8583	415.3	42
OR38×13-19H	38.00 ± 0.60	12.70 ± 0.30	19.05 ± 0.60	0.720	82.9	115.7	9585	284.9	50
OR48×15-30H	48.00 ± 0.80	15.00 ± 0.50	30.00 ± 0.80	0.890	118.1	132.5	15657	706.5	81
OR48×15.2-30H	48.00 ± 0.80	15.20 ± 0.50	30.00 ± 0.80	0.880	118.1	134.3	15865	706.5	83
OR48×15.9-30H	48.00 ± 0.80	15.90 ± 0.50	30.00 ± 0.80	0.840	118.1	140.5	16596	706.5	86
OR48×16-30H	48.00 ± 0.80	16.00 ± 0.50	30.00 ± 0.80	0.840	118.1	141.4	16700	706.5	87
OR49×10-34HU	49.10 ± 0.70	10.00 ± 0.35	33.80 ± 0.75	1.680	127.2	75.6	9616	896.8	42
OR49×16-34H	49.10 ± 0.70	15.90 ± 0.30	33.80 ± 0.75	1.060	127.2	120.2	15298	896.8	80
OR49×16-34HU	49.10 ± 0.70	15.90 ± 0.35	33.80 ± 0.75	1.060	127.2	120.2	15298	896.8	76
OR60×18-40H	60.00 ± 0.80	18.00 ± 0.50	40.00 ± 0.70	0.860	152.9	177.6	27140	1256.0	141
OR60×19.5-40H	60.00 ± 0.80	19.50 ± 0.50	40.00 ± 0.70	0.790	152.9	192.4	29402	1256.0	153
OR60×25-40H	60.00 ± 0.80	25.00 ± 0.50	40.00 ± 0.70	0.620	152.9	246.6	37695	1256.0	196
OR63×25-38H	63.00 ± 1.34	25.00 ± 0.50	38.00 ± 0.90	0.490	152.0	306.0	46512	1133.5	240
OR74×13-39H	73.66 ± 1.47	12.70 ± 0.60	38.86 ± 1.32	0.770	165.3	213.6	35298	1185.4	190
OR78×20-51H	78.00 ± 1.00	20.00 ± 1.00	50.50 ± 1.00	0.720	195.6	270.7	52958	2001.9	275
OR78×22-51H	78.00 ± 1.00	22.00 ± 1.00	50.50 ± 1.00	0.660	195.6	297.8	58254	2001.9	303

Note : 1) Core loss

- Unit : Watt max.
- Measuring conditions
PL-7, PL-11 : 100 kHz, 200 mT, at 100°C
PL-9 : 100 kHz, 200 mT, at 80°C

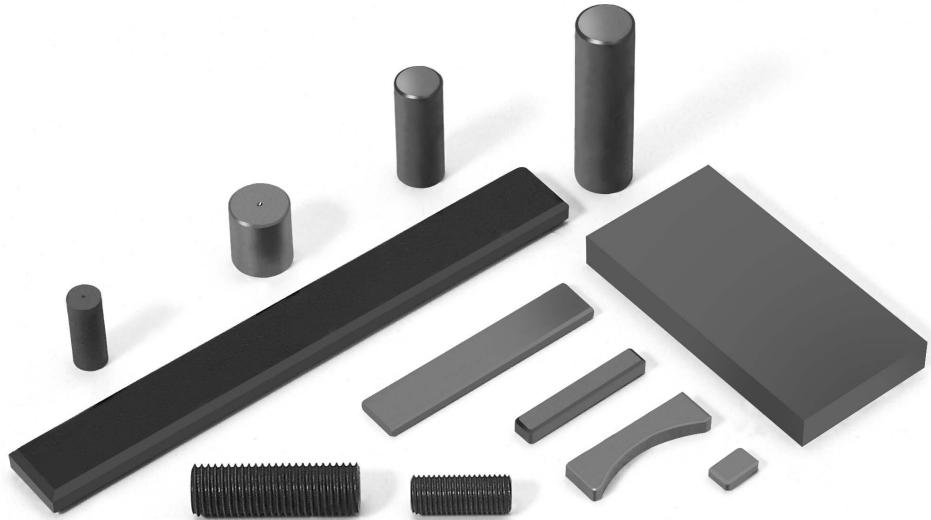
2) AL value

- Unit : nH/N²
- Measuring conditions : 1 kHz, 0.1 V, 10T_s, 23°C
- Tolerance: ±25% (SM-100 : ±30%)

3) Coating

- Toroid cores can be coated with epoxy or parylene.
- Isolation voltage : epoxy - DC 1000 V min., parylene - DC 750 V min.

Part No.	Electrical Characteristics										Core loss		
	AL value										PL-7	PL-9	PL-11
	PL-7	PL-9	PL-11	SM-8T	SM-23T	SM-43T	SM-50	SM-60	SM-70S	SM-100	PL-7	PL-9	PL-11
OR31.8×11.5-19H	2800	3600	3000	950	2700	5100	5900	7100	8900	11900	2.74	2.46	2.46
OR36×10-23H	2200	2700	2200	720	2100	3900	4500	5400	6700	9000	2.87	2.58	2.58
OR36×10-23HU	2200	2700	2200	720	2100	3900	4500	5400	6700	9000	2.92	2.64	2.64
OR36×15-23H	3200	4100	3400	1080	3100	5800	6800	8100	10100	13500	4.30	3.87	3.87
OR36×15-23HU	3200	4000	3300	1070	3100	5800	6700	8000	10000	13400	4.38	3.95	3.95
OR38×13-19H	4200	5200	4400	1400	4000	7500	8700	10500	13100	17500	4.79	4.31	4.31
OR48×15-30H	3400	4200	3500	1130	3200	6100	7100	8500	10600	14100	7.83	7.05	7.05
OR48×15.2-30H	3400	4300	3600	1140	3300	6100	7100	8600	10700	14300	7.93	7.14	7.14
OR48×15.9-30H	3600	4500	3700	1200	3400	6400	7500	9000	11200	15000	8.30	7.47	7.47
OR48×16-30H	3600	4500	3700	1200	3400	6400	7500	9000	11200	15000	8.35	7.52	7.52
OR49×10-34HU	1800	2200	1900	600	1700	3200	3700	4500	5600	7500	4.90	4.42	4.42
OR49×16-34H	2800	3600	3000	950	2700	5100	5900	7100	8900	11900	7.65	6.88	6.88
OR49×16-34HU	2800	3600	3000	950	2700	5100	5900	7100	8900	11900	7.80	7.04	7.04
OR60×18-40H	3500	4400	3700	1170	3400	6300	7300	8800	11000	14600	13.57	12.21	12.21
OR60×19.5-40H	3800	4800	4000	1270	3700	6800	8000	9500	11900	15900	14.70	13.23	13.23
OR60×25-40H	4900	6100	5100	1620	4700	8700	10100	12200	15200	20300	18.85	16.96	16.96
OR63×25-38H	6200	7700	6400	2050	5900	11000	12800	15400	19200	25700	23.72	21.40	21.40
OR74×13-39H	3900	4900	4100	1310	3800	7000	8200	9800	12200	16300	18.00	16.24	16.24
OR78×20-51H	4200	5200	4400	1400	4000	7500	8700	10500	13100	17500	26.48	23.83	23.83
OR78×22-51H	4600	5700	4800	1520	4400	8200	9500	11400	14300	19000	29.13	26.21	26.21



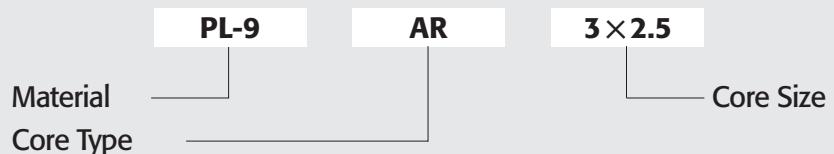
ROD, BAR, SCREW CORES

AR3~AR8, AP40~AP160

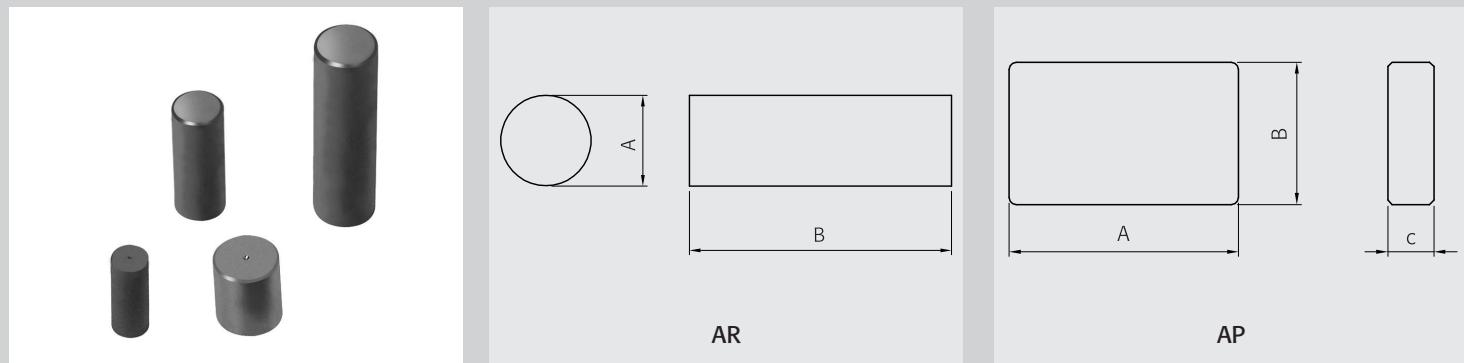
I21~I77

OS3.8~OS8

Ordering Code System

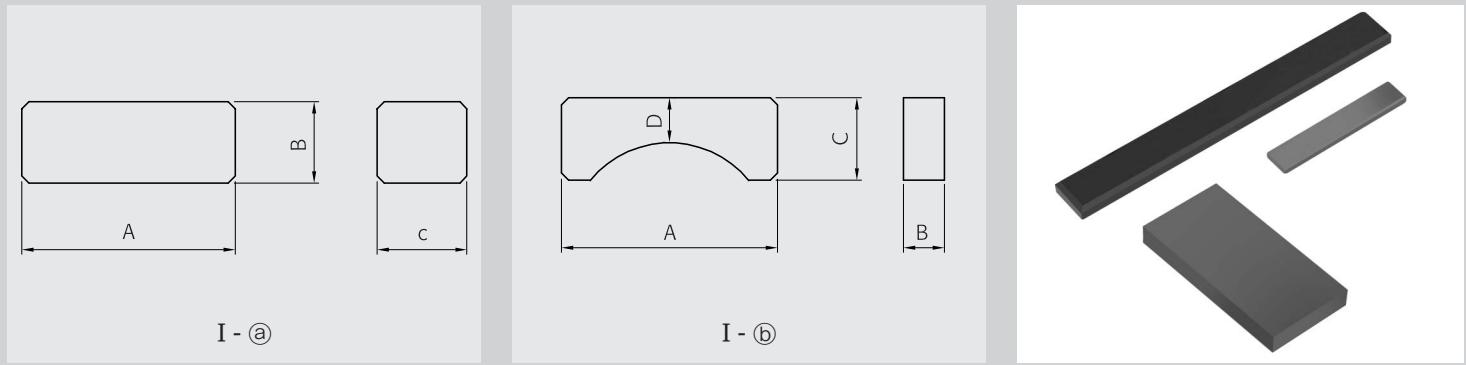


AR, AP, I CORES



Dimensions in mm

Part No.	Type	A	B
AR3×25	AR	3.00 ⁺⁰ _{-0.05}	25.00 ⁺⁰ _{-1.00}
AR3.5×15	AR	3.00 ⁺⁰ _{-0.25}	15.00 ⁺⁰ _{-0.80}
AR3.5×16	AR	3.50 ±0.20	16.00 ±0.30
AR4×12.5	AR	4.00 ^{+0.15} _{-0.20}	12.50 ±0.25
AR4×15	AR	4.00 ^{+0.15} _{-0.20}	15.00 ±0.25
AR4×17.5	AR	4.00 ^{+0.15} _{-0.20}	17.50 ±0.25
AR4×25	AR	3.80 ±0.20	25.00 ±0.30
AR5×10.5	AR	5.00 ±0.20	10.50 ±0.25
AR5×15	AR	5.00 ±0.20	15.00 ±0.25
AR5×20	AR	5.00 ⁺⁰ _{-0.30}	20.00 ±0.20
AR5×25	AR	5.00 ⁺⁰ _{-0.30}	25.00 ±0.30
AR5×30	AR	5.00 ^{+0.15} _{-0.25}	3.00 ±0.40
AR5.6×14	AR	5.50 ±0.10	14.00 ±1.00
AR6×10	AR	6.00 ⁺⁰ _{-0.30}	10.00 ±0.20
AR6×15	AR	6.00 ⁺⁰ _{-0.30}	15.00 ±0.20
AR6×20	AR	6.00 ⁺⁰ _{-0.30}	20.00 ±0.20
AR6×22.5	AR	6.00 ⁺⁰ _{-0.30}	22.50 ±0.30
AR6×25	AR	6.00 ⁺⁰ _{-0.30}	25.00 ±0.30
AR6×25	AR	6.00 ⁺⁰ _{-0.30}	25.00 ±0.30
AR6.5×12.4	AR	6.50 ⁺⁰ _{-0.20}	12.40 ⁺⁰ _{-0.40}
AR7.5×20	AR	7.50 ⁺⁰ _{-0.50}	20.00 ±0.20
AR8×20	AR	8.00 ±0.20	20.00 ±0.30



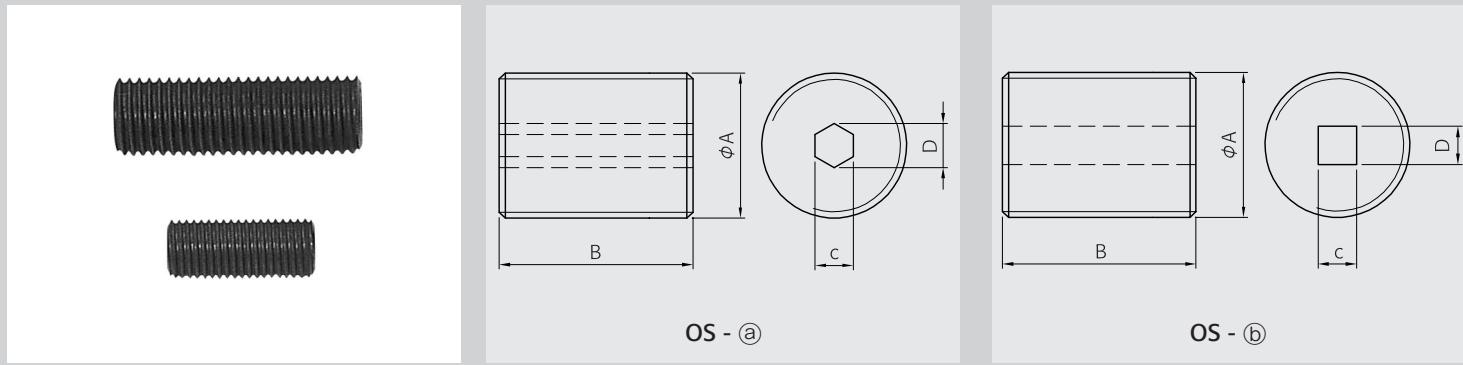
Dimensions in mm

Part No.	Type	A	B	C	D
AR8×25	AR	8.00 ^{+0.1} _{-0.30}	25.00 ±0.50		
AR9.4×34	AR	9.40 ^{+0.15} _{-0.25}	34.00 ±0.50		
AR10×12	AR	10.00 ±0.30	12.00 ±0.30		
AR10×20	AR	9.80 ±0.30	20.00 ±0.50		

AP8×10×4	AP	8.00 ±0.15	10.00 ±0.20	4.00 ±0.15
AP40×8×2	AP	40.00 ±1.00	8.00 ^{+0.1} _{-0.30}	2.00 ^{+0.1} _{-0.30}
AP41×41×9.5	AP	41.00 ±0.50	41.00 ±0.50	9.50 ±0.30
AP50×31×10	AP	50.00 ±0.50	31.00 ±0.50	10.00 ±0.30
AP80×12×5	AP	80.00 ⁺⁰ _{-1.30}	12.00 ±0.25	5.00 ⁺⁰ _{-0.5}
AP100×12×5	AP	100.00 ⁺⁰ _{-1.5}	12.00 ±0.30	5.00 ⁺⁰ _{-0.5}
AP160×20×4	AP	19.50 ±0.50	160.00 ±2.00	4.00 ⁺⁰ _{-0.5}

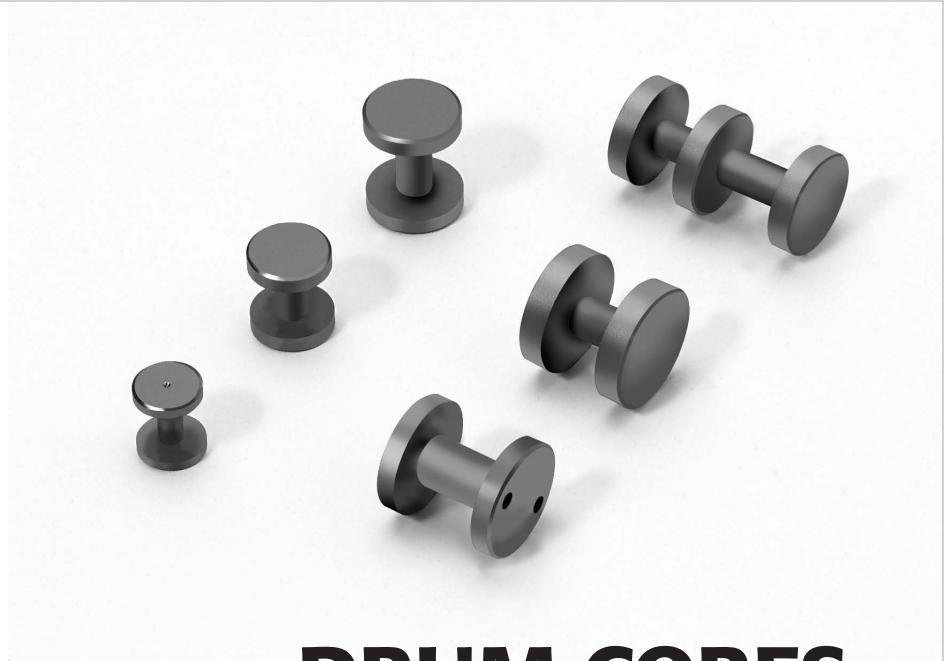
I2407R	I - ⑥	23.50 ^{+0.3} _{-0.20}	3.00 ±0.20	7.00 ±0.20	4.00 ±0.20
I2408R	I - ⑥	24.00 ±0.20	5.00 ±0.20	8.00 ±0.20	6.00 ±0.20
I4316S	I - @	16.00 ^{+0.15} _{-0.25}	4.00 ±0.15	3.00 ±0.15	
I4324S	I - @	23.50 ^{+0.30} _{-0.20}	4.00 ±0.20	3.00 ±0.20	
I4335S	I - @	35.20 ±0.20	4.00 ±0.20	2.50 ±0.20	
I4416S	I - @	16.00 ⁺⁰ _{-0.20}	4.00 ±0.20	4.00 ±0.20	
I4430L	I - @	30.20 ±0.20	4.00 ±0.20	4.00 ±0.20	
I4430S	I - @	30.00 ±0.30	4.00 ±0.20	4.00 ±0.20	
I7725S	I - @	25.10 ±0.50	7.20 ±0.30	7.25 ±0.25	

OS CORES



Dimensions in mm

Part No.	Type	A	B	C	D	Pitch
OS3.8×12-1.5SH	OS - ⑥	3.80 ± 0.30	12.00 ± 0.50	1.50 ± 0.10	1.50 ± 0.10	0.75 ref.
OS3.8×5-1.5SH	OS - ⑥	3.80 ± 0.03	5.00 ± 0.03	1.50 ± 0.10	1.50 ± 0.10	0.75 ref.
OS3.8×6D	OS - ⑥	3.80 ± 0.03	6.00 ± 0.03	1.00 ± 0.15	1.70 ± 0.20	0.75 ref.
OS3.8×8-1.5SH	OS - ⑥	3.80 ± 0.03	8.00 ± 0.30	1.50 ± 0.10	1.50 ± 0.10	0.75 ref.
OS3.8×8D	OS - ⑥	3.80 ± 0.03	8.00 ± 0.30	1.00 ± 0.15	1.70 ± 0.20	0.75 ref.
OS4.55×15-2.05HH	OS - ①	4.55 ± 0.03	15.00 ± 0.60	2.05 ± 0.10	2.30 ref.	0.75 ref.
OS5.8×10-2.6HH P:0.75	OS - ①	5.80 ± 0.03	10.00 ± 0.30	2.60 $^{+0.15}_{-0.05}$	3.00 ref.	0.75 ref.
OS5.8×20-2.65HH P:1.0	OS - ①	5.80 ± 0.03	20.00 ± 0.60	2.65 $^{+0.15}_{-0.05}$	3.00 ref.	1.00 ± 0.03
OS5.8×8D	OS - ⑥	5.80 ± 0.03	8.00 ± 0.30	1.40 ± 0.15	2.90 ± 0.20	0.75 ref.
OS6×10-2.6HH P:0.75	OS - ①	6.00 ± 0.03	10.00 ± 0.50	2.60 $^{+0.15}_{-0.05}$	3.00 ref.	0.75 ± 0.03
OS6×10-2.6HH P:1.0	OS - ①	6.00 ± 0.03	10.00 ± 0.50	2.60 $^{+0.15}_{-0.05}$	3.00 ref.	1.00 ref.
OS6×15-2.6HH P:1.0	OS - ①	6.00 ± 0.30	15.00 ± 0.60	2.60 $^{+0.15}_{-0.05}$	3.00 ref.	1.00 ref.
OS6×15-2.6HH P:0.75	OS - ①	6.00 ± 0.30	15.00 ± 0.25	2.60 $^{+0.15}_{-0.05}$	3.00 ref.	0.75 ± 0.03
OS6×15-2.6HH P:1.0	OS - ①	6.00 ± 0.30	15.00 ± 0.30	2.60 $^{+0.15}_{-0.05}$	3.00 ref.	1.00 ± 0.03
OS6×20-2.6HH P:0.75	OS - ①	6.00 ± 0.03	20.00 ± 0.60	2.60 $^{+0.15}_{-0.05}$	3.00 ref.	0.75 ± 0.03
OS6×20-2.6HH P:1.0	OS - ①	6.00 ± 0.03	20.00 ± 0.60	2.60 $^{+0.15}_{-0.05}$	3.00 ref.	1.00 ± 0.03
OS6×25-2.6HH	OS - ①	8.00 ± 0.03	25.00 ± 0.60	2.60 $^{+0.15}_{-0.05}$	3.00 ref.	1.00 ref.
OS8×20-2.6HH	OS - ①	8.00 ± 0.03	20.00 ± 0.60	2.60 $^{+0.15}_{-0.05}$	3.00 ref.	0.75 ref.
OS8×28	OS - ⑥	7.50 $^{+0}_{-0.10}$	28.00 ± 0.80	4.50 $^{+0.30}_{-0}$	10.00 $^{+0.15}_{-0.05}$	1.25 \pm ref.

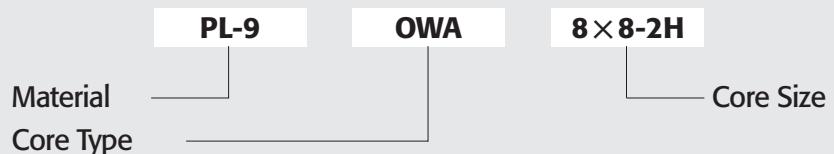


DRUM CORES

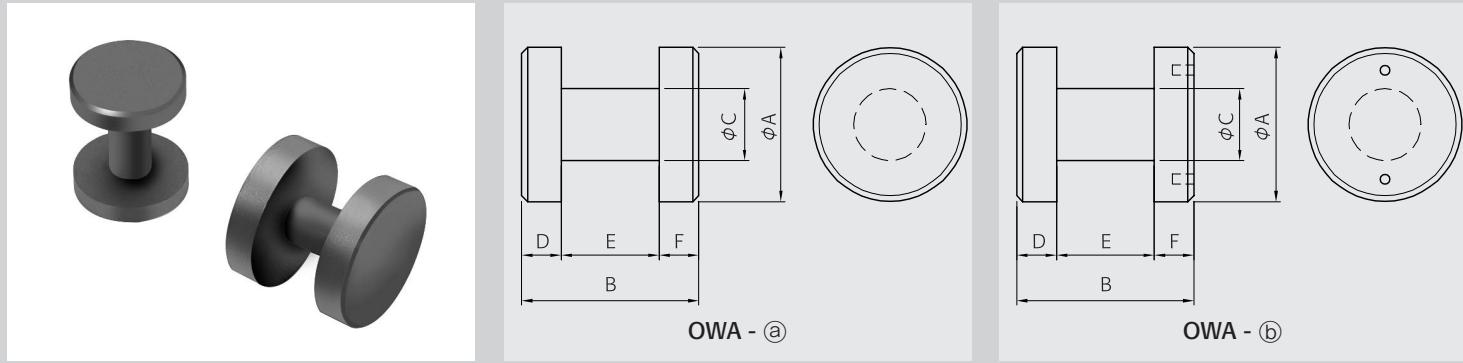
OWA8~OWA20

CDR14

Ordering Code System

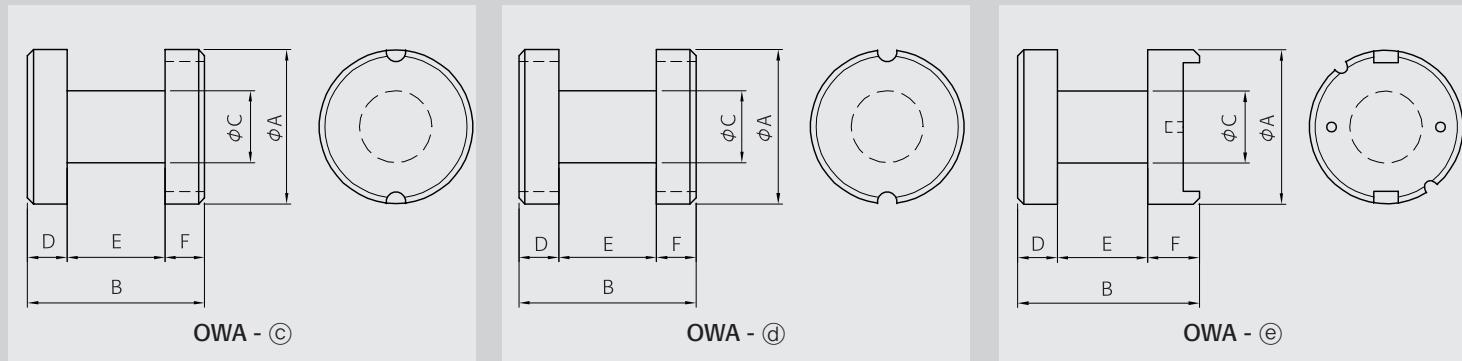


OWA CORES



Dimensions in mm

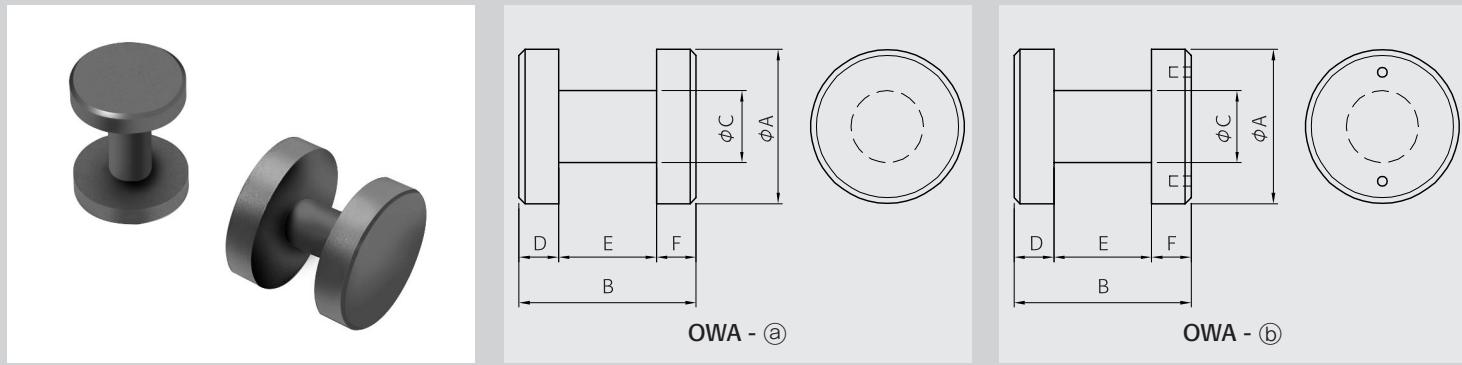
Part No.	Type	A	B	C	D	E	F
OWA5.4×6.5-2H	OWA - (b)	5.40 ^{+0.05} _{-0.20}	6.50 ^{+0.10} _{-0.15}	2.50 ±0.10	1.70 ^{+0.10} _{-0.15}	3.10 ±0.10	1.70 ref.
OWA5.4×7-2H	OWA - (b)	5.40 ^{+0.05} _{-0.20}	7.00 ±0.20	2.50 ±0.10	1.50 ±0.15	4.00 ±0.15	1.50 ref.
OWA5.4×8-2H	OWA - (b)	5.40 ^{+0.05} _{-0.20}	8.00 ^{+0.20} _{-0.10}	2.50 ±0.10	2.00 ±0.15	4.00 ±0.20	2.00 ref.
OWA6.5×7.5-2H	OWA - (b)	6.50 ^{+0.10} _{-0.20}	7.50 ±0.20	3.00 ±0.20	1.75 ±0.10	4.00 ±0.20	1.75 ref.
OWA6.5×7.5D	OWA - (a)	6.50 ^{+0.05} _{-0.20}	7.50 ±0.20	3.00 ±0.20	1.00 ±0.10	4.00 ±0.20	2.50 ±0.20
OWA6.5×8.2H	OWA - (b)	6.50 ^{+0.10} _{-0.20}	8.00 ±0.30	3.00 ±0.20	1.75 ±0.15	4.50 ±0.20	1.75 ref.
OWA6.5×10	OWA - (a)	6.50 ^{+0.10} _{-0.20}	10.00 ±0.20	3.00 ±0.15	1.50 ±0.30	7.00 ±0.20	1.50 ref.
OWA8×8C	OWA - (a)	8.00 ⁺⁰ _{-0.30}	8.00 ±0.25	3.10 ±0.20	2.00 ±0.15	4.00 ±0.20	2.00 ref.
OWA8×8-2H C:3.1	OWA - (b)	8.00 ⁺⁰ _{-0.30}	8.00 ±0.20	3.10 ±0.15	2.00 ±0.15	4.00 ±0.20	2.00 ref.
OWA8×8-2H C:3.5	OWA - (b)	8.00 ⁺⁰ _{-0.30}	8.00 ±0.20	3.50 ±0.20	2.00 ±0.15	4.00 ±0.20	2.00 ref.
OWA8×10 C:3.2	OWA - (a)	8.00 ^{+0.05} _{-0.30}	10.00 ±0.20	3.20 ^{+0.15} _{-0.10}	2.00 ±0.15	6.00 ±0.20	2.00 ref.
OWA8×10 C:3.6	OWA - (a)	8.00 ^{+0.05} _{-0.30}	10.00 ±0.20	3.60 ^{+0.15} _{-0.10}	2.00 ±0.15	6.00 ±0.20	2.00 ref.
OWA8×10-2H	OWA - (b)	8.00 ^{+0.05} _{-0.30}	10.00 ±0.20	3.20 ±0.10	2.00 ±0.15	6.00 ±0.20	2.00 ref.
OWA8×11	OWA - (a)	8.00 ⁺⁰ _{-0.30}	11.00 ±0.20	3.50 ±0.20	2.00 ±0.15	7.00 ±0.15	2.00 ref.
OWA8×11-2H	OWA - (b)	8.00 ⁺⁰ _{-0.30}	11.00 ±0.20	3.50 ±0.20	2.00 ±0.15	7.00 ±0.15	2.00 ref.
OWA8×11-2H C:4.55	OWA - (b)	8.00 ⁺⁰ _{-0.30}	11.00 ±0.20	4.55 ±0.20	2.00 ±0.15	7.00 ±0.15	2.00 ±0.15
OWA8×12	OWA - (a)	8.00 ⁺⁰ _{-0.30}	12.00 ±0.20	3.40 ±0.10	2.50 ±0.15	7.00 ±0.15	2.50 ref.
OWA8×13-4HR C:3.3	OWA - (d)	7.90 ±0.15	13.00 ±0.20	3.30 ±0.12	2.00 ±0.20	9.00 ±0.20	2.00 ±0.20
OWA10×10 C:3.1	OWA - (a)	10.00 ⁺⁰ _{-0.40}	10.00 ±0.25	3.10 ±0.10	2.40 ±0.20	5.20 ±0.20	2.40 ref.
OWA10×10 C:3.5	OWA - (a)	10.00 ⁺⁰ _{-0.40}	10.00 ±0.25	3.50 ±0.10	2.40 ±0.20	5.20 ±0.20	2.40 ref.
OWA10×10 C:4.0	OWA - (a)	10.00 ⁺⁰ _{-0.40}	10.00 ±0.25	4.00 ±0.10	2.40 ±0.20	5.20 ±0.20	2.40 ref.
OWA10×10 C:4.25	OWA - (a)	10.00 ⁺⁰ _{-0.40}	10.00 ±0.25	4.25 ±0.10	2.40 ±0.20	5.20 ±0.20	2.40 ref.



Dimensions in mm

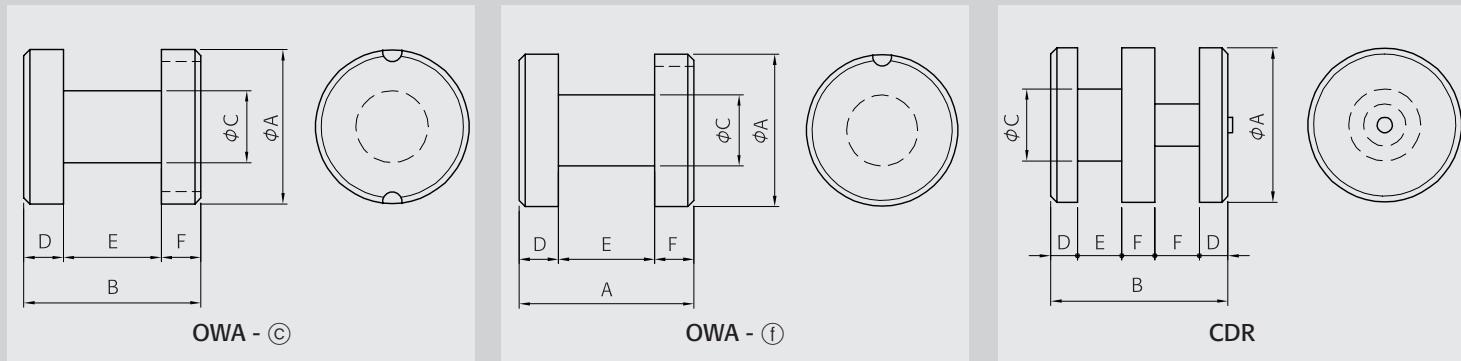
Part No.	Type	A	B	C	D	E	F
OWA10×11 C:3.8	OWA - ®	10.00 ⁺⁰ _{-0.40}	11.00 ±0.30	3.80 ±0.10	2.00 ±0.20	7.00 ±0.20	2.00 ref.
OWA10×11 E:5.2	OWA - ®	10.00 ⁺⁰ _{-0.40}	11.00 ±0.30	3.45 ±0.10	2.90 ±0.20	5.20 ±0.20	2.90 ref.
OWA10×11 E:7.0	OWA - ®	10.00 ⁺⁰ _{-0.40}	11.00 ±0.30	3.50 ±0.15	2.00 ±0.20	7.00 ±0.20	2.00 ref.
OWA10×11-2H	OWA - ®	10.00 ⁺⁰ _{-0.40}	11.00 ±0.30	3.50 ±0.15	2.00 ±0.20	7.00 ±0.20	2.00 ref.
OWA10×11-2HA	OWA - ®	10.00 ⁺⁰ _{-0.40}	11.00 ±0.30	5.20 ±0.10	2.90 ±0.20	5.20 ±0.20	2.90 ref.
OWA10×12 C:3.5	OWA - ®	10.00 ⁺⁰ _{-0.40}	12.00 ±0.20	3.50 ±0.15	2.30 ±0.20	7.40 ±0.20	2.30 ref.
OWA10×12 C:4.0	OWA - ®	10.00 ⁺⁰ _{-0.40}	12.00 ±0.20	4.00 ±0.15	2.30 ±0.20	7.40 ±0.20	2.30 ref.
OWA10×12 C:5.0	OWA - ®	10.00 ⁺⁰ _{-0.40}	12.00 ±0.20	5.00 ±0.15	2.30 ±0.20	7.40 ±0.20	2.30 ref.
OWA10×12 C:6.0	OWA - ®	10.00 ⁺⁰ _{-0.40}	12.00 ±0.20	6.00 ±0.15	2.30 ±0.20	7.40 ±0.20	2.30 ref.
OWA10×15 C:4.0	OWA - ®	10.00 ±0.20	15.00 ±0.20	4.00 ±0.10	2.60 ±0.15	9.80 ref.	2.60 ±0.15
OWA10.2×8.7 DT	OWA - ®	10.20 ±0.20	8.70 ±0.20	4.50 ±0.15	1.50 ±0.10	4.40 ±0.20	1.80 ref.
OWA12×11 C:4.0	OWA - ®	12.00 ⁺⁰ _{-0.30}	11.00 ±0.20	4.00 ±0.15	2.40 ±0.20	6.20 ±0.20	2.40 ref.
OWA12×15 C:4.5	OWA - ®	12.00 ⁺⁰ _{-1.00}	15.00 ±0.20	4.50 ±1.00	2.50 ±0.20	10.00 ±0.20	2.50 ref.
OWA12×15 C:5.0	OWA - ®	12.00 ⁺⁰ _{-1.00}	15.00 ±0.20	5.00 ±0.10	2.50 ±0.20	10.00 ±0.20	2.50 ref.
OWA12×15 C:5.2	OWA - ®	12.00 ⁺⁰ _{-1.00}	15.00 ±0.20	5.20 ±0.10	2.50 ±0.20	10.00 ±0.20	2.50 ref.
OWA12×15-2H C:4.5	OWA - ®	12.00 ⁺⁰ _{-1.00}	15.00 ±0.20	4.50 ±0.10	2.50 ±0.20	10.00 ±0.20	2.50 ref.
OWA12×15-2H C:5.2	OWA - ®	12.00 ⁺⁰ _{-1.00}	15.00 ±0.20	5.20 ±0.10	2.50 ±0.20	10.00 ±0.20	2.50 ref.
OWA12×15-2HR C:4.5	OWA - ®	12.00 ⁺⁰ _{-1.00}	15.00 ±0.20	4.50 ±0.10	2.50 ±0.20	10.00 ±0.20	2.50 ref.
OWA12×15-2HR C:5.0	OWA - ®	12.00 ⁺⁰ _{-1.00}	15.00 ±0.20	5.00 ±0.10	2.50 ±0.20	10.00 ±0.20	2.50 ref.
OWA12×15-4HR C:4.5	OWA - ®	12.00 ⁺⁰ _{-1.00}	15.00 ±0.20	4.50 ±0.10	2.50 ±0.20	10.00 ±0.20	2.50 ref.
OWA12×15DT	OWA - ®	12.00 ⁺⁰ _{-1.00}	15.00 ±0.20	7.00 ±0.10	2.50 ±0.20	10.00 ±0.20	2.50 ref.
OWA13×13 C:6.4	OWA - ®	13.00 ±0.25	13.00 ±0.20	6.40 ±0.10	3.00 ±0.20	7.00 ref.	3.00 ±0.20

OWA CORES



Dimensions in mm

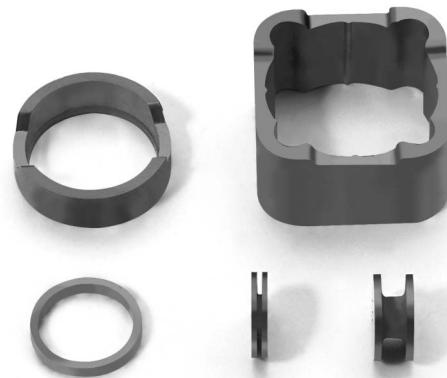
Part No.	Type	A	B	C	D	E	F
OWA13×14.5 C:4.7	OWA - (a)	13.10 ± 0.10	14.50 ± 0.40	4.70 ± 0.20	2.90 ± 0.20	9.60 ± 0.20	2.00 ref.
OWA13×15 C:5.0	OWA - (a)	13.00 ± 0.10	15.00 ± 0.20	5.00 ± 0.10	3.00 ± 0.20	9.00 ref.	3.00 ± 0.20
OWA13×15 C:6.4	OWA - (a)	13.00 ± 0.10	15.00 ± 0.20	6.40 ± 0.10	3.00 ± 0.20	9.00 ref.	3.00 ± 0.20
OWA14×13 C:4.8	OWA - (a)	14.00 ± 0.10	13.00 ± 0.20	4.80 ± 0.15	2.95 ± 0.20	7.00 ± 0.20	2.95 ref.
OWA14×13-2H C:5.8	OWA - (b)	$14.00^{+0.10}_{-0.30}$	$13.00^{+0.20}_{-0.10}$	$5.80^{+0.10}_{-0.15}$	2.95 ± 0.20	$7.00^{+0.20}_{-0.10}$	2.95 ref.
OWA14×15 C:4.9	OWA - (a)	$14.00^{+0.10}_{-0.30}$	$15.00^{+0.30}_{-0.20}$	$4.90^{+0.10}_{-0.15}$	2.50 ± 0.20	10.00 ± 0.30	2.50 ref.
OWA14×15 C:5.0	OWA - (a)	$14.00^{+0.10}_{-0.30}$	$15.00^{+0.30}_{-0.20}$	$5.00^{+0.10}_{-0.15}$	2.50 ± 0.20	10.00 ± 0.30	2.50 ref.
OWA14×15 C:8.0	OWA - (a)	$14.00^{+0.10}_{-0.30}$	15.00 ± 0.30	8.00 ± 0.10	2.50 ± 0.20	10.00 ± 0.20	2.50 ref.
OWA14×15 E:7.0	OWA - (a)	$14.00^{+0.10}_{-0.30}$	$15.00^{+0.30}_{-0.20}$	5.00 ± 0.15	4.00 ± 0.20	7.00 ± 0.20	4.00 ref.
OWA14×15-2H C:4.9	OWA - (b)	$14.00^{+0.10}_{-0.30}$	$15.00^{+0.30}_{-0.20}$	$4.90^{+0.05}_{-0.10}$	2.50 ± 0.20	10.00 ± 0.30	2.50 ref.
OWA14×15-2H C:6.0	OWA - (b)	$14.00^{+0.10}_{-0.30}$	15.00 ± 0.30	6.00 ± 0.15	2.50 ± 0.20	10.00 ± 0.30	2.50 ref.
OWA14×20 C:6.0	OWA - (a)	$14.00^{+0.10}_{-0.30}$	20.00 ± 0.30	6.00 ± 0.15	4.00 ± 0.20	12.00 ± 0.20	4.00 ref.
OWA14×20 C:8.0	OWA - (a)	$14.00^{+0.10}_{-0.30}$	20.00 ± 0.20	8.00 ± 0.15	4.00 ± 0.20	12.00 ± 0.20	4.00 ref.
OWA14×20-1HR C:6.0	OWA - (f)	14.00 ± 0.20	$20.00^{+0.60}_{-0.40}$	6.00 ± 0.15	3.90 ± 0.20	12.20 ± 0.20	3.90 ± 0.20
OWA15×15 C:6.0	OWA - (a)	15.00 ± 0.15	15.00 ± 0.40	6.00 ± 0.10	3.00 ± 0.15	9.00 ref.	3.00 ± 0.15
OWA15×15.5 C:5.0	OWA - (a)	$15.00^{+0.30}_{-0.20}$	15.50 ± 0.40	5.00 ± 0.10	2.50 ± 0.20	10.5 ± 0.20	



Dimensions in mm

Part No.	Type	A	B	C	D	E	F
OWA15×15-2HR C:5.0	OWA - (c)	15.00 ^{+0.30} _{-0.20}	15.00 ±0.20	5.00 ^{+0.15} _{-0.10}	2.50 ±0.20	10.00 ±0.30	2.50 ref.
OWA15×16.5-1HR C:5.0	OWA - (f)	15.00 ^{+0.30} _{-0.20}	16.50 ±0.40	5.00 ±0.10	3.00 ±0.20	10.5 ±0.20	3.00 ±0.20
OWA15×18 C:6.0	OWA - (a)	15.00 ±0.20	18.00 ±0.40	6.00 ±0.10	3.00 ±0.20	12.00 ref.	3.00 ±0.20
OWA15×18 C:7.5	OWA - (a)	15.00 ^{+0.30} _{-0.20}	18.00 ±0.20	7.50 ^{+0.15} _{-0.10}	3.00 ±0.20	12.00 ±0.30	3.00 ref.
OWA15×18 C:7.7	OWA - (a)	15.00 ±0.20	18.00 ±0.40	7.70 ±0.10	3.00 ±0.20	12.00 ref.	3.00 ±0.15
OWA15×18-2HR C:6.0	OWA - (c)	15.00 ±0.30	18.00 ±0.40	6.00 ±0.20	3.00 ±0.20	12.00 ±0.30	3.00 ref.
OWA15×20-1HR C:9.1	OWA - (f)	15.00 ±0.25	20.00 ±0.40	9.10 ±0.15	2.75 ±0.20	14.50 ±0.20	2.75 ref.
OWA15×21 C:7.0	OWA - (a)	15.00 ±0.20	21.00 ±0.25	7.00 ±0.10	2.50 ±0.20	16.00 ±0.20	2.50 ±0.20
OWA15×23 C:8.4	OWA - (a)	15.00 ⁺⁰ _{-0.30}	23.00 ±0.40	8.40 ±0.20	2.50 ±0.30	18.00 ±0.30	2.50 ref.
OWA15×23 C:9.8	OWA - (a)	15.00 ⁺⁰ _{-0.30}	23.00 ±0.40	9.80 ±0.20	2.50 ±0.30	18.00 ±0.20	2.50 ref.
OWA15×23-2HR	OWA - (c)	15.00 ⁺⁰ _{-0.30}	23.00 ±0.40	8.40 ±0.20	2.50 ±0.30	18.00 ±0.30	2.50 ref.
OWA20×20 C:8.0	OWA - (a)	20.00 ⁺⁰ _{-0.30}	20.00 ±0.40	8.00 ±0.20	3.20 ±0.20	13.60 ±0.20	3.20 ref.
OWA20×20 C:8.5	OWA - (f)	20.00 ⁺⁰ _{-0.30}	20.00 ⁺⁰ _{-0.40}	8.50 ±0.20	3.20 ±0.30	13.60 ±0.30	3.20 ref.

CDR14×27.5A	CDR	14.00 ⁺⁰ _{-0.25}	27.50 ^{+0.60} _{-0.40}	7.50 ±0.15	2.50 ⁺⁰ _{-0.20}	10.00 ^{+0.30} ₋₀	2.50 ref.
CDR14×27.5B	CDR	14.00 ⁺⁰ _{-0.25}	27.50 ±0.15	7.50 ±0.15	2.50 ⁺⁰ _{-0.20}	10.00 ^{+0.30} ₋₀	2.50 ref.



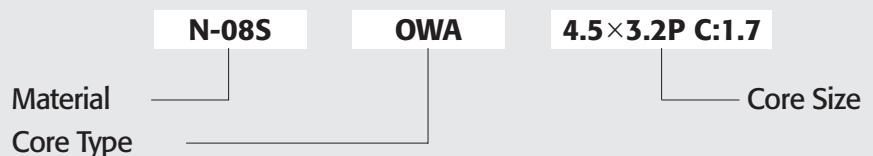
SMD CORES

OWA4~OWA10

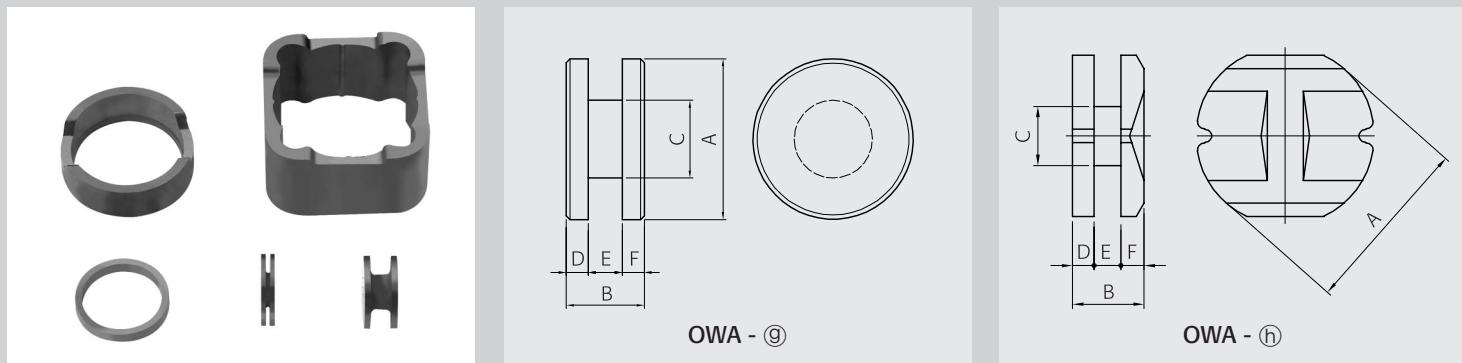
OWC5~OWC6

DSC12

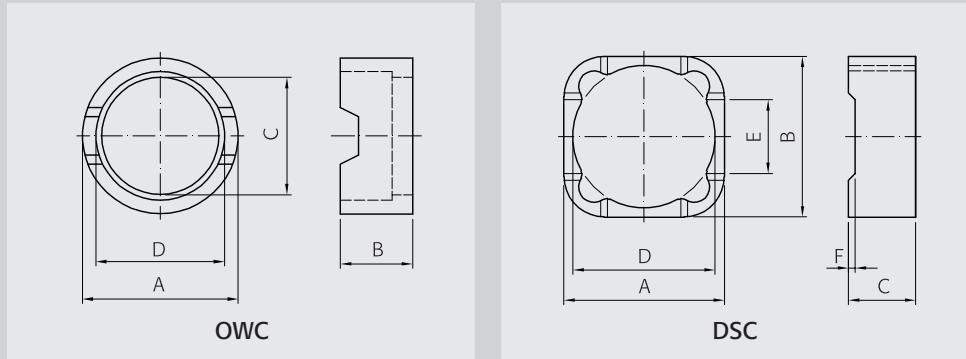
Ordering Code System



OWA, OWC, DSC CORES



Dimensions in mm							
Part No.	Type	A	B	C	D	E	
OWA4.5×3.2P C:1.7	OWA - ⑩	4.50 ± 0.10	3.20 ± 0.10	1.70 ± 0.10	0.60 ref.	1.45 ± 0.10	1.50 ± 0.10
OWA4.55×1.2 C:2.1	OWA - ⑨	4.55 $^{+0}_{-0.15}$	1.20 ± 0.10	2.10 ± 0.10	0.40 ± 0.10	0.40 ± 0.10	0.40 ± 0.10
OWA4.55×1.9 C:2.1	OWA - ⑨	4.55 $^{+0}_{-0.15}$	1.90 ± 0.10	2.10 ± 0.10	0.45 ± 0.10	1.00 ± 0.10	0.55 ± 0.10
OWA4.55×2.2 C:2.1	OWA - ⑨	4.55 $^{+0}_{-0.15}$	2.20 ± 0.10	2.10 ± 0.10	0.50 ± 0.10	1.20 ± 0.10	0.50 ± 0.10
OWA5.4×1.0 C:2.8	OWA - ⑨	5.40 $^{+0}_{-0.25}$	1.00 ± 0.10	2.80 ± 0.10	0.35 ± 0.05	0.30 ± 0.05	0.35 ± 0.05
OWA5.4×2.45 C:2.5	OWA - ⑨	5.40 $^{+0}_{-0.25}$	2.45 ± 0.10	2.50 ± 0.10	0.50 ± 0.10	1.45 ± 0.10	0.50 ref.
OWA5.8×4.5P C:2.8	OWA - ⑩	5.80 ± 0.15	4.50 ± 0.15	2.80 ± 0.15	1.00 ref.	2.30 ± 0.10	1.20 ± 0.10
OWA7.8×3.5P C:2.4	OWA - ⑩	7.80 ± 0.15	3.50 ± 0.10	2.40 ± 0.10	0.80 ref.	1.50 ± 0.10	1.20 ± 0.10
OWA7.8×5.0P C:2.8	OWA - ⑩	7.80 ± 0.15	5.00 ± 0.15	2.80 ± 0.15	1.00 ref.	2.60 ± 0.10	1.40 ± 0.10
OWA10×3.5 C:5.0	OWA - ⑨	9.85 ± 0.10	3.50 ± 0.15	5.00 ± 0.10	0.80 ± 0.10	1.90 ± 0.10	0.80 ref.
OWA10×4.0P C:3.3	OWA - ⑩	10.00 ± 0.15	4.00 ± 0.15	3.30 ± 0.15	1.20 ref.	1.50 ± 0.10	1.30 ± 0.10
OWA10×4.0 C:5.0	OWA - ⑨	9.85 ± 0.10	4.00 ± 0.15	5.00 ± 0.10	0.95 ± 0.10	2.10 ± 0.10	0.95 ref.
OWA10×5 C:5.0	OWA - ⑨	9.85 ± 0.10	5.00 ± 0.15	5.00 ± 0.10	0.95 ± 0.10	3.10 ± 0.10	0.95 ref.

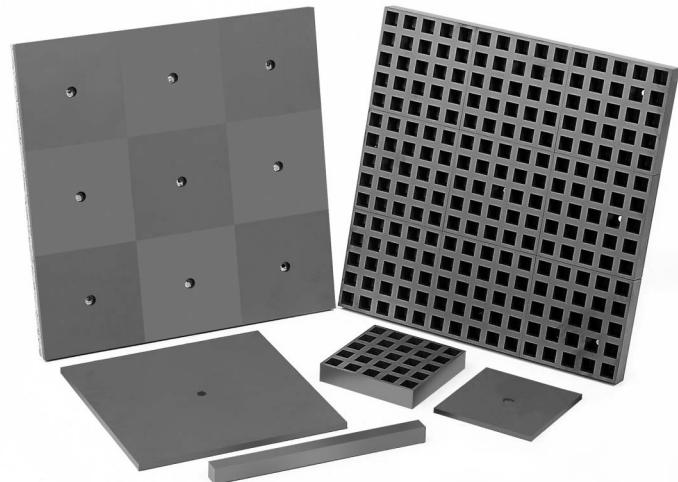


Dimensions in mm

Part No.	Type	A	B	C	D	E	F
OWA10×5.4P C:3.3	OWA - (h)	10.00 ±0.15	5.40 ±0.15	3.30 ±0.15	1.20 ref.	2.50 ±0.10	1.70 ±0.10
OWA10×7 C:5.1	OWA - (g)	9.85 ±0.10	7.00 ±0.15	5.10 ±0.10	1.15 ±0.10	4.70 ±0.10	1.15 ref.
OWA10×7 C:5.5	OWA - (g)	9.85 ±0.10	7.00 ±0.15	5.50 ±0.10	1.15 ±0.10	4.70 ±0.10	1.15 ref.

OWC5.9×1-4.65H	OWC	5.90 ±0.10	0.90 ±0.10	4.65 ±0.10	4.90 ±0.10		
OWC5.9×1.6-4.65H	OWC	5.90 ±0.10	1.60 ±0.10	4.65 ±0.10	4.90 ±0.10		
OWC5.9×1.9-4.65H	OWC	5.90 ±0.10	1.90 ±0.10	4.65 ±0.10	4.90 ±0.10		
OWC6.8×2.4-5.5H	OWC	6.80 ±0.10	2.40 ±0.10	5.50 ±0.10	6.00 ±0.10		

DSC12×3.0-10.7H	DSC	12.10 ±0.20	12.10 ±0.20	3.00 ±0.15	10.70 ±0.20	5.50 ref.	0.65 ref.
DSC12×3.5-10.7H	DSC	12.10 ±0.20	12.10 ±0.20	3.50 ±0.15	10.70 ±0.20	5.50 ref.	0.65 ref.
DSC12×5-10.7H	DSC	12.10 ±0.20	12.10 ±0.20	4.90 ±0.15	10.70 ±0.20	5.50 ref.	0.65 ref.
DSC12×7-10.7H	DSC	12.10 ±0.20	12.10 ±0.20	6.90 ±0.15	10.70 ±0.20	5.50 ref.	0.65 ref.



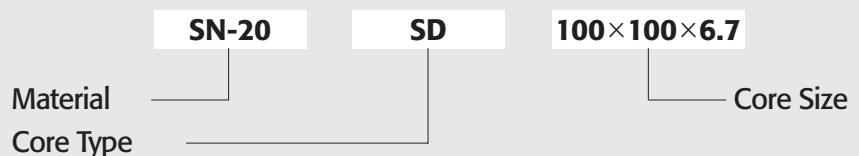
ABSORBER

SD100~SD200

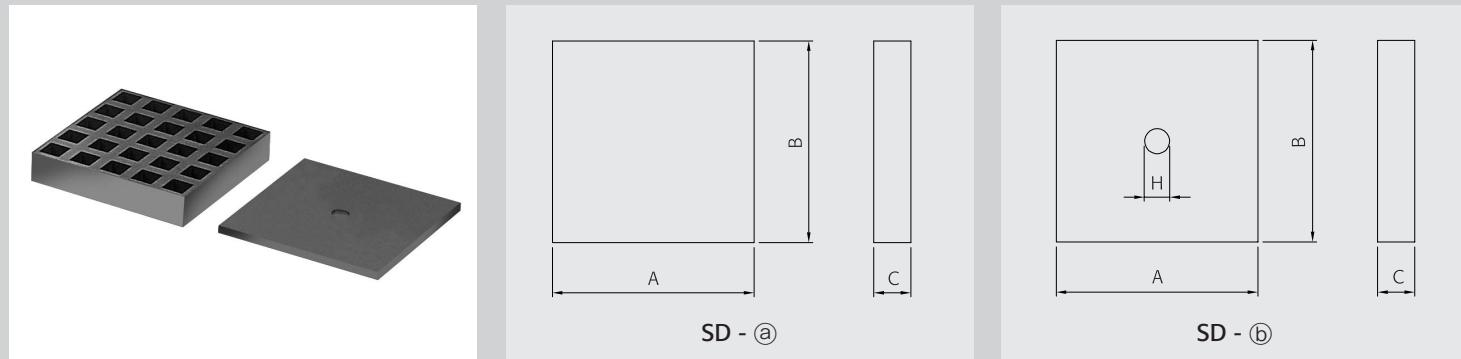
SFA110

SGA100

Ordering Code System

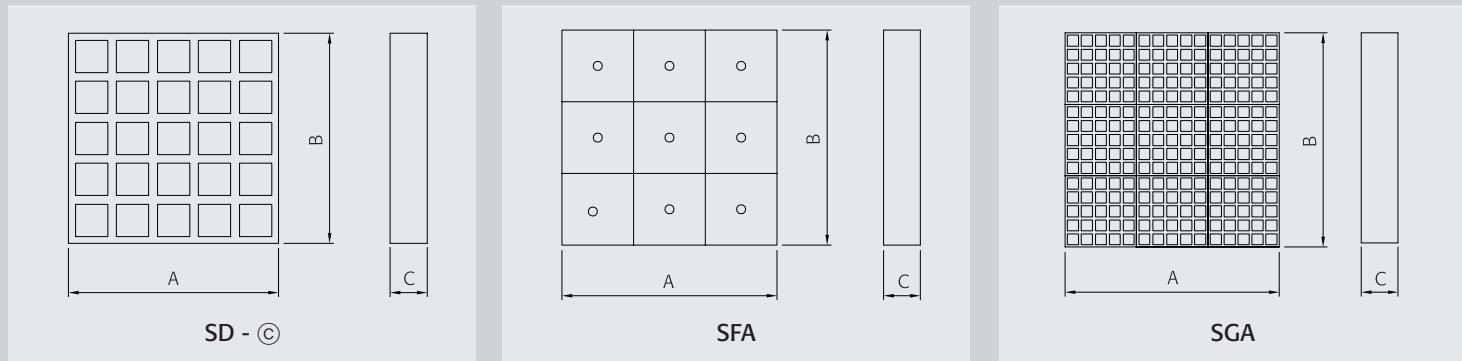


SD, SFA, SGA CORES



Dimensions in mm

Part No.	Type	A	B	C	H
SD100×100×3.9	SD - (a)	99.95 ±0.10	99.95 ±0.10	3.90 ±0.10	
SD100×100×4	SD - (a)	101.25 ±0.70	99.95 ±0.15	4.00 ±0.25	
SD100×100×5.25	SD - (a)	99.95 ±0.10	99.95 ±0.10	5.25 ±0.10	
SD100×100×5.4-10H	SD - (b)	99.95 ±0.10	99.95 ±0.10	5.40 ±0.10	10.00 ±0.20
SD100×100×5.5	SD - (a)	100.00 ±0.15	100.00 ±0.15	5.50 ±0.10	
SD100×100×6.0	SD - (a)	100.00 ±0.15	100.00 ±0.15	6.00 ±0.10	
SD100×100×6.0-10H	SD - (b)	99.95 ±0.10	99.95 ±0.10	6.05 ±0.10	10.00 ±0.20
SD100×100×6.2	SD - (a)	99.95 ±0.10	99.95 ±0.10	6.20 ±0.10	
SD100×100×6.2-10H	SD - (b)	99.95 ±0.10	99.95 ±0.10	6.20 ±0.10	10.00 ±0.20
SD100×100×6.3-10H	SD - (b)	99.95 ±0.10	99.95 ±0.10	6.30 ±0.10	10.00 ±0.20



Dimensions in mm

Part No.	Type	A	B	C	H
SD100×100×6.7	SD - (a)	99.95 ± 0.10	99.95 ± 0.10	6.75 ± 0.10	
SD100×100×6.7-8H	SD - (b)	99.95 ± 0.10	99.95 ± 0.10	6.75 ± 0.10	8.00 ± 0.20
SD100×100×6.7-10H	SD - (b)	99.95 ± 0.10	99.95 ± 0.10	6.75 ± 0.10	10.00 ± 0.20
SD100×100×7	SD - (a)	100.00 ± 0.70	100.00 ± 0.70	7.00 ± 0.25	
SD100×100×9	SD - (a)	101.25 ± 0.70	99.95 ± 0.15	9.00 ± 0.25	
SD100×100×10	SD - (a)	100.00 ± 1.00	100.00 ± 1.00	10.00 ± 0.20	
SD100×100×19-25H	SD - (c)	100.00 ± 0.50	100.00 ± 0.50	19.00 ± 0.50	
SD200×200×6.7-10H	SD - (b)	200.00 ± 0.15	200.00 ± 0.15	6.75 ± 0.15	10.00 ± 0.20
SFA110A-9	SFA	300.00 ± 0.50	300.00 ± 0.50	18.90 ± 0.50	
SGA100A-9	SGA	300.00 ± 0.90	300.00 ± 0.90	20.30 ± 0.70	



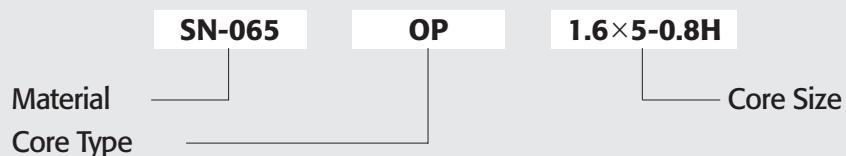
EMC CORES

OP1.6~OP28, OR9.5~OR34.8

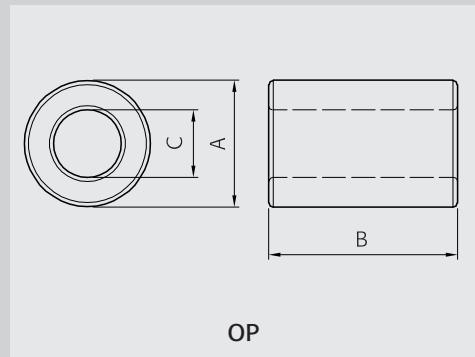
OPS16.4~OPS25

SF53~SF57, SS31~SS41

Ordering Code System



OP CORES

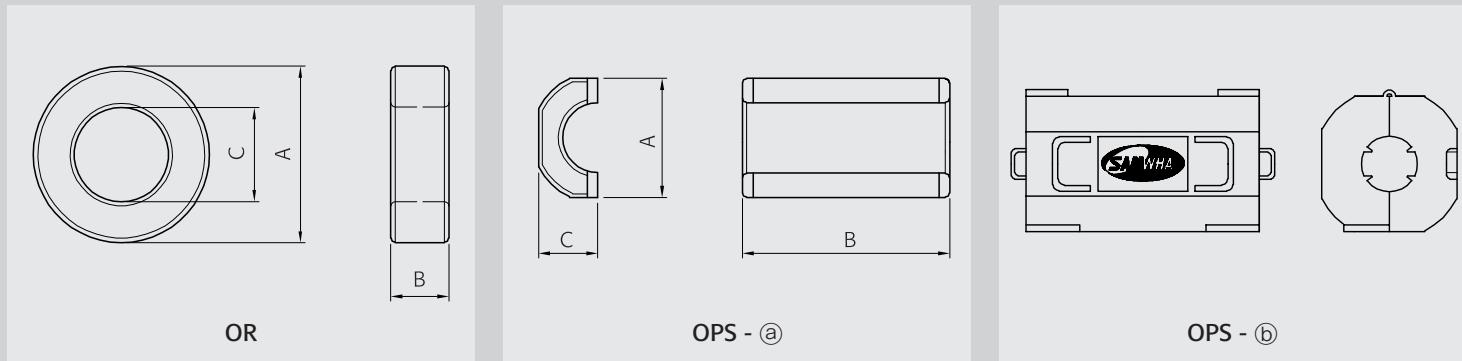


Dimensions in mm

Part No.	Type	A	B	C
OP1.6×5-0.8H	OP	1.60 ^{+0.15} ₋₀	5.00 ⁺⁰ _{-0.40}	0.80 ^{+0.10} ₋₀
OP2×7-0.8H	OP	2.00 ^{+0.10} _{-0.20}	7.00 ± 0.10	0.80 ± 0.10
OP2.5×5-0.8H	OP	2.50 ± 0.20	5.00 ± 0.20	0.80 ± 0.10
OP3.5×3.2-1H	OP	3.50 ± 0.15	3.20 ± 0.20	1.00 ± 0.10
OP3.5×4.5-0.8H	OP	3.50 ^{+0.10} _{-0.05}	4.50 ± 0.20	0.80 ^{+0.10} ₋₀
OP3.5×5-0.8H	OP	3.50 ^{+0.10} _{-0.05}	5.00 ± 0.20	0.80 ^{+0.10} ₋₀
OP3.5×5-1.2H	OP	3.50 ± 0.15	5.00 ± 0.20	1.20 ± 0.20
OP3.5×6-1.1H	OP	3.50 ± 0.20	6.00 ± 0.30	1.10 ± 0.15
OP3.5×6.5-0.8H	OP	3.50 ^{+0.10} _{-0.05}	6.50 ⁺⁰ _{-0.40}	0.80 ^{+0.10} ₋₀
OP3.5×8-0.8H	OP	3.50 ^{+0.10} _{-0.05}	8.00 ± 0.20	0.80 ^{+0.10} ₋₀
OP3.5×10-0.8H	OP	3.50 ^{+0.20} ₋₀	10.00 ^{+0.25} _{-0.15}	0.80 ^{+0.10} _{-0.05}
OP3.5×12-0.8H	OP	3.50 ^{+0.20} ₋₀	12.00 ^{+0.25} _{-0.15}	0.80 ^{+0.10} _{-0.05}
OP3.5×12-1H	OP	3.50 ^{+0.10} _{-0.20}	12.00 ± 0.40	10.00 ± 0.20
OP3.5×14-0.8H	OP	3.50 ^{+0.20} ₋₀	14.00 ^{+0.25} _{-0.15}	0.80 ^{+0.15} _{-0.05}
OP4.5×5-1.5H	OP	4.50 ^{+0.05} _{-0.20}	5.00 ± 0.30	1.50 ^{+0.20} _{-0.05}
OP5×5-2.5H	OP	5.00 ± 0.20	5.00 ± 0.25	2.50 ± 0.10
OP7.5×7.6-2.4H	OP	7.50 ^{+0.10} _{-0.20}	7.60 ± 0.20	2.40 ± 0.10
OP8×12-3.5H	OP	8.00 ± 0.30	12.00 ± 0.50	3.50 ± 0.10
OP9×10.2-4.6H	OP	9.00 ± 0.30	10.20 ± 0.30	4.60 ^{+0.30} _{-0.05}
OP9.5×9.5-4.75H	OP	9.50 ± 0.30	9.50 ± 0.30	4.75 ± 0.25
OP9.5×9.5-5.75H	OP	9.50 ± 0.30	9.50 ± 0.30	5.75 ± 0.25
OP9.8×7.4-6.3H	OP	9.80 ± 0.30	7.40 ± 0.30	6.30 ± 0.30

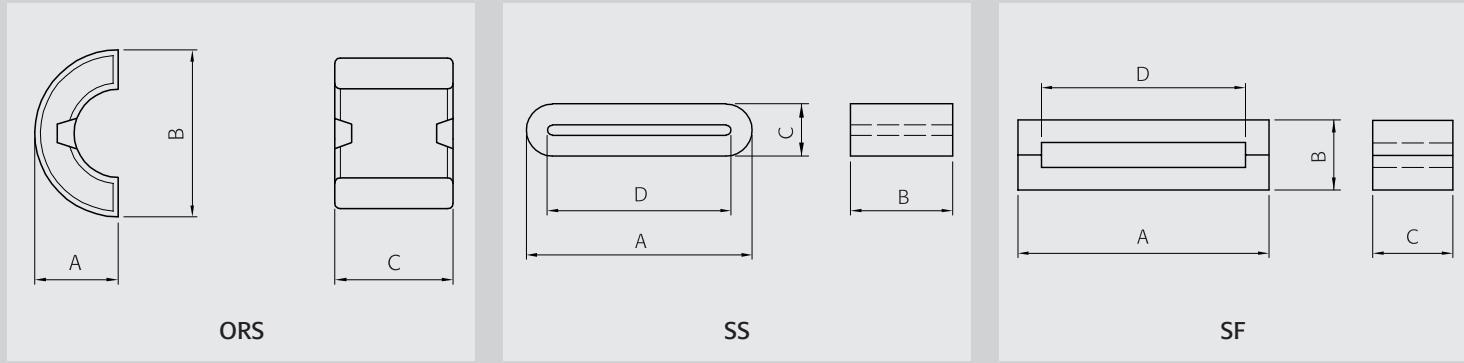
Part No.	Type	Dimensions in mm		
		A	B	C
OP11.8×15-7.3H	OP	11.80 ±0.30	15.00 ±0.50	7.30 ±0.30
OP12×20-5.6H	OP	12.00 ±0.40	20.00 ±0.70	5.60 ±0.20
OP13.9×15-6.9H	OP	13.90 ±0.40	15.00 ±0.50	6.90 ±0.40
OP14.2×24.3-8.9H	OP	14.20 ±0.50	24.30 ±0.70	8.90 ±0.40
OP14.2×28.5-6.4H	OP	14.20 ^{+0.30} _{-0.50}	28.50 ±0.50	6.40 ±0.30
OP14.2×28.5-7.2H	OP	14.20 ±0.50	28.00 ±0.50	7.20 ±0.40
OP14.3×23.5-8.1H	OP	14.30 ±0.50	23.50 ±0.50	8.10 ±0.50
OP14.3×23.5-8.2H	OP	14.30 ±0.50	23.50 ±0.50	8.20 ±0.50
OP14.3×23.5-8.4H	OP	14.30 ±0.50	23.50 ±0.50	8.40 ±0.50
OP16×16-8H	OP	16.00 ±0.50	16.00 ±0.50	8.00 ±0.40
OP16.1×17-7.9H	OP	16.10 ±0.40	17.00 ±0.50	7.90 ±0.40
OP16.1×28.3-7.9H	OP	16.10 ±0.40	28.30 ±0.80	8.00 ±0.30
OP17.2×25-9.6H	OP	17.20 ±0.50	25.00 ±0.70	9.60 ±0.50
OP17.5×28-10H	OP	17.50 ±0.40	28.0 ±0.60	10.00 ±0.30
OP17.5×28.5-9.5H	OP	17.20 ±0.50	28.50 ±0.70	9.50 ±0.30
OP18.2×25.2-12.5H	OP	18.20 ±0.20	25.20 ±0.50	12.50 ±0.30
OP18.2×25.5-11H	OP	18.20 ±0.50	25.50 ±0.70	11.00 ±0.50
OP18.2×25.5-12.5H	OP	18.20 ±0.40	25.50 ±0.50	12.50 ±0.30
OP18.3×28-9.7H	OP	18.30 ±0.50	28.00 ^{+0.40} _{-0.80}	9.70 ^{+0.40} _{-0.30}
OP18.4×28-9.5H	OP	18.40 ±0.40	28.00 ^{+0.40} _{-0.80}	9.50 ±0.40
OP28×28-14.5H	OP	28.00 ^{+0.30} _{-0.50}	28.00 ±0.50	14.50 ±0.50
OP28×29-14.5H	OP	28.00 ±0.50	29.00 ±0.50	14.50 ±0.50

OR, OPS, SS, SF CORES



Dimensions in mm

Part No.	Type	A	B	C	D	E
OR9.5×9.5-4.75H	OR	9.50 ± 0.30	9.50 ± 0.30	4.75 ± 0.25		
OR12.5×5.1-7.6H	OR	12.50 ± 0.40	5.10 ± 0.30	7.60 ± 0.40		
OR15×6.5-8H	OR	15.00 $^{+0.10}_{-0.20}$	6.50 $^{+0.10}_{-0.30}$	8.00 ± 0.30		
OR15×8-8H	OR	15.00 ± 0.30	8.00 ± 0.20	8.00 ± 0.30		
OR18×6-10H	OR	18.00 ± 0.30	6.00 ± 0.20	10.00 ± 0.30		
OR18.2×6.2-11H	OR	18.20 ± 0.50	6.20 ± 0.50	11.00 ± 0.50		
OR18.3×10-9.7H	OR	18.30 ± 0.40	10.00 ± 0.40	9.70 ± 0.40		
OR18.3×12-9.7H	OR	18.30 ± 0.40	10.00 ± 0.40	9.70 ± 0.40		
OR18.4×10-9.5H	OR	18.40 ± 0.40	10.00 ± 0.40	9.50 ± 0.40		
OR18.4×12-9.5H	OR	18.40 ± 0.40	12.00 ± 0.40	9.50 ± 0.40		
OR19×10-10H	OR	19.00 ± 0.50	10.00 ± 0.50	10.00 ± 0.50		
OR21×2.7-6H	OR	21.00 ± 0.10	2.70 ± 0.20	6.00 ± 0.20		
OR23.5×9.5-12.6H	OR	23.50 ± 0.40	9.50 ± 0.30	12.60 ± 0.40		
OR28×14-14.5H	OR	28.00 ± 0.50	14.00 ± 0.50	14.50 ± 0.50		
OR29×7.5-19H	OR	29.00 ± 0.50	7.50 ± 0.50	19.00 ± 0.50		
OR30×23-13H	OR	30.30 ± 0.30	23.0 ± 0.50	13.00 ± 0.25		
OR32×16-19H	OR	32.00 ± 0.40	16.00 ± 0.40	19.00 ± 0.40		



Dimensions in mm

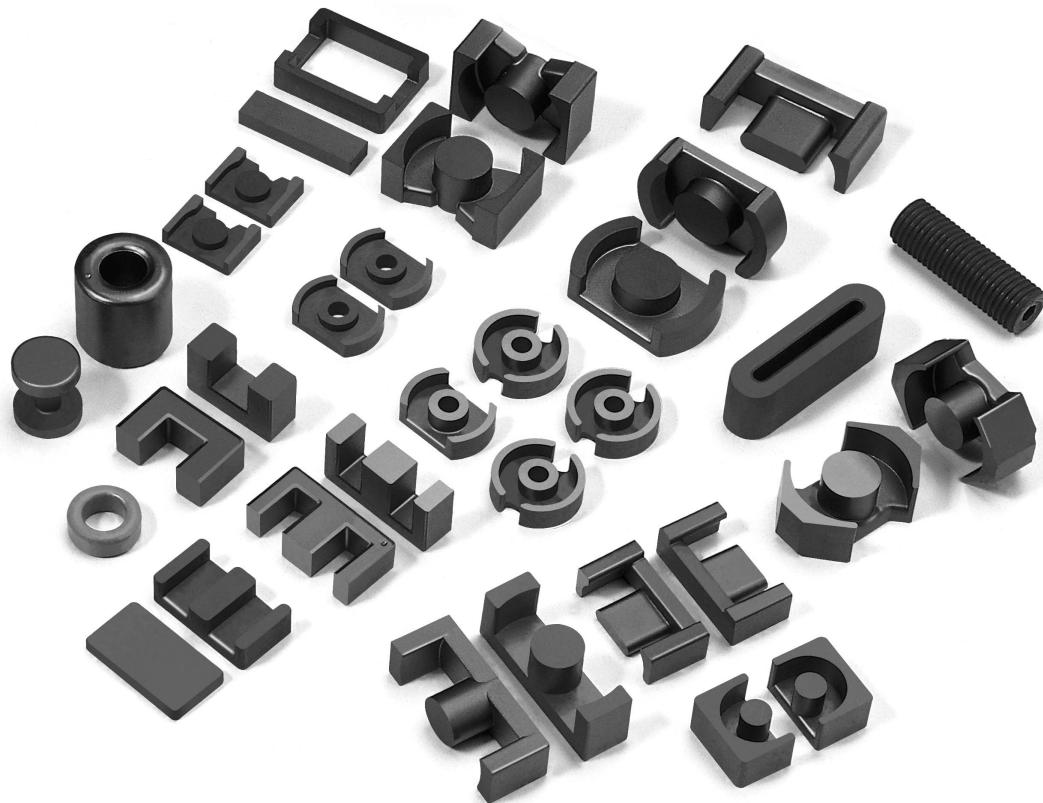
Part No.	Type	A	B	C	D	E
OR34×12-20H	OR	33.70 ± 0.50	12.00 ± 0.40	20.30 ± 0.50		
OR34.8×12-21H	OR	34.80 ± 0.40	12.00 ± 0.50	21.00 ± 0.40		

OPS16.4×28-10H	OPS - (a)	16.40 ± 0.40	28.00 ± 0.70	8.20 ± 0.15		
OPS18.4×28-9.5H	OPS - (a)	16.40 ± 0.40	28.00 ± 0.70	8.20 ± 0.15		
OPS18A	OPS - (b)					
ORS16.4×13-8.2H	ORS	$8.30^{+0}_{-0.30}$	16.30 ± 0.30	$13.30^{+0}_{-0.40}$		
ORS16.4×16-8.2H	ORS	$8.30^{+0}_{-0.30}$	16.30 ± 0.30	$16.30^{+0}_{-0.40}$		

SS29×10-8	SS	29.00 ± 0.50	10.00 ± 0.50	8.00 ± 0.40	22.00 ± 0.50	2.20 ± 0.20
SS31×12-4.7	SS	31.00 ± 0.40	12.00 ± 0.30	4.70 ± 0.30	27.20 ± 0.30	1.20 ± 0.40
SS35×12-6	SS	35.00 ± 0.40	12.00 ± 0.30	6.00 ± 0.30	30.00 ± 0.30	1.00 ± 0.20
SS41×8-7.7	SS	41.20 ± 1.00	8.00 ± 0.60	7.70 ± 0.60	35.00 ± 1.00	
SS41×15-7.7	SS	41.20 ± 1.00	15.00 ± 0.60	7.70 ± 0.60	35.00 ± 1.00	

SF53×12×7	SF	53.00 ± 1.00	7.00 ± 0.20	12.00 ± 0.50	46.00 ± 1.00	
SF57×12×7	SF	57.00 ± 1.00	7.00 ± 0.20	12.00 ± 0.50	50.00 ± 1.00	

Part II



Technical Data

EE Cores

EE0808S
EE0908S
EE1313S
EE1614S
EE1616S
EE1916S
EE2020S
EE2525F
EE2525W
EE2834S
EE3030S
EE3232S
EE3335S
EE3528S
EE4035S
EE4133N
EE4242B
EE4242S
EE4740S

EI Cores

EI1614S
EI1916S
EI2218S
EI2820S
EI329S
EI4035S
EI5040S
EI6044S
EI7064S

EER Cores

EER2429S
EER2828N
EER2828S
EER2834N
EER2834S
EER3019N
EER3032S
EER3435S
EER3540S
EER3541S
EER3543S
EER3940S
EER4042S
EER4045S
EER4214S
EER4242B
EER4242KF
EER4242S
EER4445S
EER4535S

EER Cores

EER4950S
EER4954S
EER5455S
EER6062S

EED Cores

EED2820S

PQ Cores

PQ2016S
PQ2020S
PQ2620S
PQ2625S
PQ3220S
PQ3230S
PQ3535S
PQ4040S
PQ5050S

RM Cores

RM4
RM5
RM6
RM7
RM8
RM10
RM12
RM14

DS Cores

DS3019
DS3119W
DS3319
DS4025

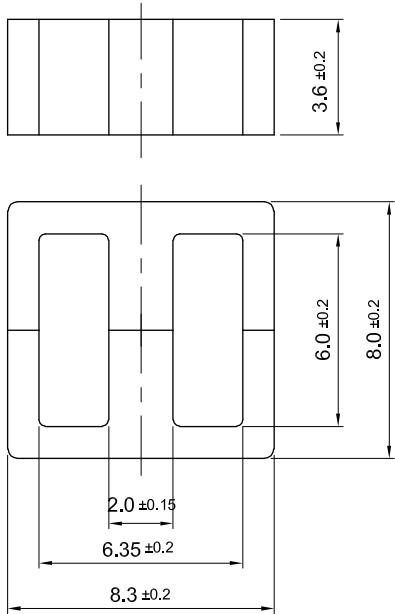
EFD Cores

EFD2025N
EFD2124S
EFD2525S
EFD2525V
EFD3030S
EFD3033V
EFD3130S
EFD5050S
EPC1920S
EPC2525S

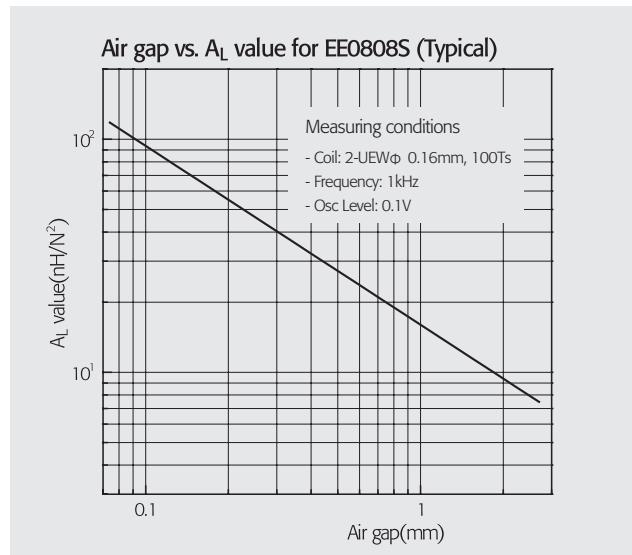
EP Cores

EP5D
EP7
EP10
EP13
EP17
EP20
EOP9.5
EFD2020S

EE0808S



Parameter	Symbol	Value	Unit
Core constant	C1	2.960	mm ⁻¹
Effective path length	le	19.7	mm
Effective area	Ae	6.7	mm ²
Effective volume	Ve	131	mm ³
Center leg area	Ac	6.0	mm ²
Winding area	Aw	14.0	mm ²
Weight of set	W	0.7	g



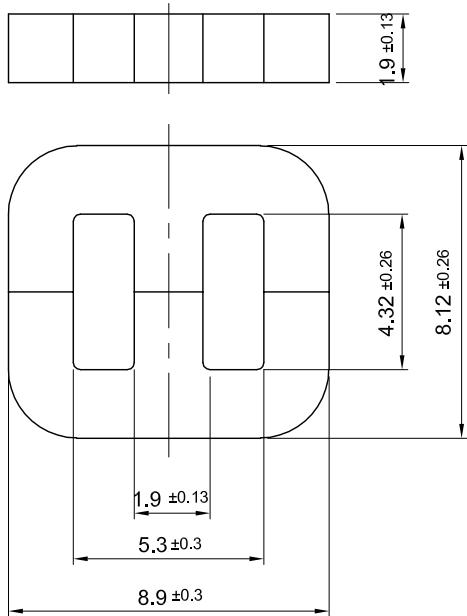
Calculated Output Power		(Unit : W)			
Circuit type		Switching Frequency			
		20kHz	50kHz	100kHz	250kHz
Push-pull converter		1	1	2	3
Flyback converter		0.3	0.4	0.6	1
Forward converter		0.4	0.6	1	2

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

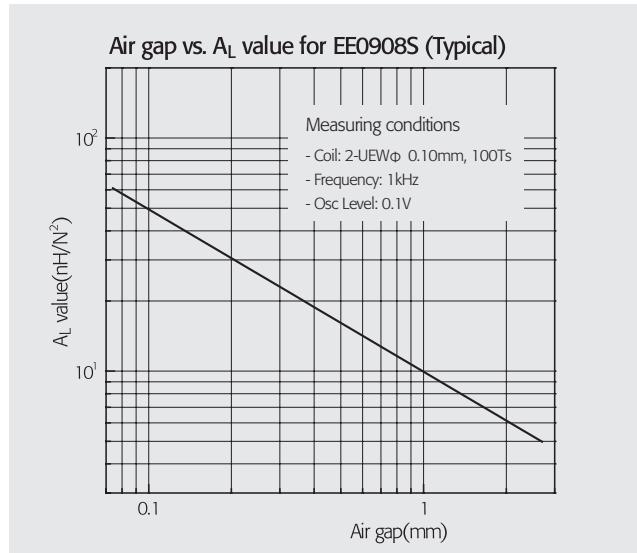
2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	590 ± 25%	1390	0.00	0.09	PL-5 EE0808S
PL-7	590 ± 25%	1390	0.00	0.08	PL-7 EE0808S
	95 ± 15%	220	0.10		PL-7 EE0808S AL 95
	27 ± 10%	64	0.50		PL-7 EE0808S AL 27
	16 ± 5%	38	1.00		PL-7 EE0808S AL 16
PL-9	670 ± 25%	1580	0.00	0.06 (80°C)	PL-9 EE0808S
PL-11	600 ± 25%	1410	0.00	0.06	PL-11 EE0808S
SM-50	900 ± 25%	2120	0.00		SM-50 EE0808S
SM-60	1080 ± 25%	2540	0.00		SM-60 EE0808S
SM-70S	1100 ± 25%	2590	0.00		SM-70S EE0808S
SM-100	1550 ± 30%	3650	0.00		SM-100 EE0808S

EE0908S E8.8



Parameter	Symbol	Value	Unit
Core constant	C1	3.130	mm ¹
Effective path length	le	15.7	mm
Effective area	Ae	5.0	mm ²
Effective volume	Ve	78	mm ³
Center leg area	Ac	3.6	mm ²
Winding area	Aw	7.3	mm ²
Weight of set	W	0.5	g



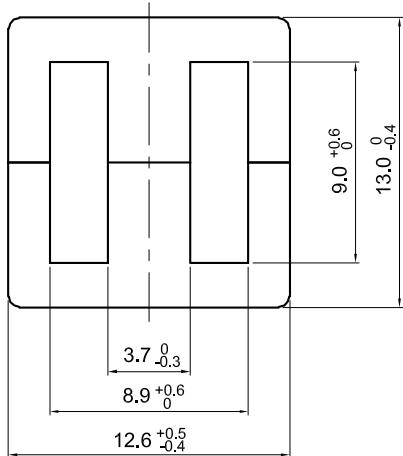
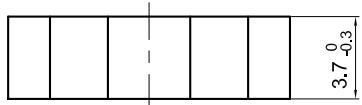
Calculated Output Power		(Unit : W)			
Circuit type		Switching Frequency			
		20kHz	50kHz	100kHz	250kHz
Push-pull converter		0.3	0.5	0.7	1
Flyback converter		0.1	0.2	0.2	0.5
Forward converter		0.2	0.3	0.4	0.7

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

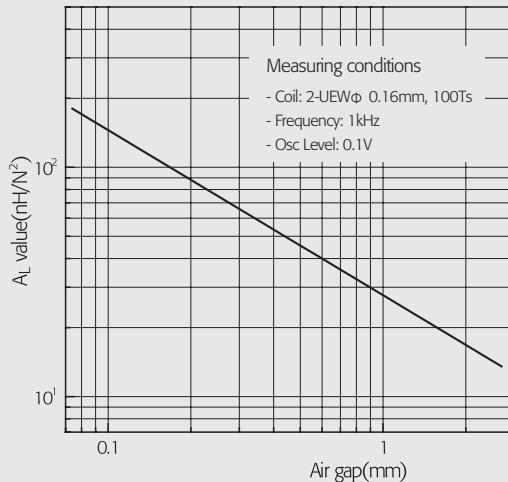
2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	540 ± 25%	1340	0.00	0.07	PL-5 EE0908S
PL-7	540 ± 25%	1340	0.00	0.05	PL-7 EE0908S
	50 ± 15%	120	0.10		PL-7 EE0908S AL 50
	16 ± 10%	40	0.50		PL-7 EE0908S AL 16
	10 ± 5%	20	1.00		PL-7 EE0908S AL 10
PL-9	610 ± 25%	1520	0.00	0.04 (80°C)	PL-9 EE0908S
PL-11	550 ± 25%	1370	0.00	0.04	PL-11 EE0908S
SM-50	810 ± 25%	2020	0.00		SM-50 EE0908S
SM-60	970 ± 25%	2420	0.00		SM-60 EE0908S
SM-70S	1000 ± 25%	2490	0.00		SM-70S EE0908S
SM-100	1550 ± 30%	3860	0.00		SM-100 EE0908S

EE1313S E12.6



Parameter	Symbol	Value	Unit
Core constant	C1	2.390	mm ⁻¹
Effective path length	le	29.7	mm
Effective area	Ae	12.4	mm ²
Effective volume	Ve	369	mm ³
Center leg area	Ac	12.6	mm ²
Winding area	Aw	26.2	mm ²
Weight of set	W	1.8	g

Air gap vs. A_L value for EE1313S (Typical)

Calculated Output Power

(Unit : W)

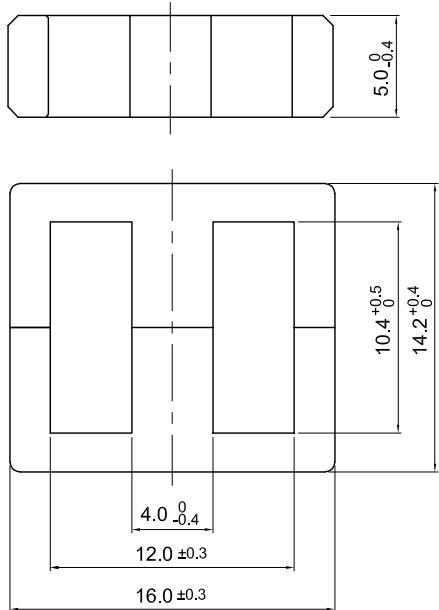
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	3	5	6	12
Flyback converter	1	2	2	4
Forward converter	1	2	3	6

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

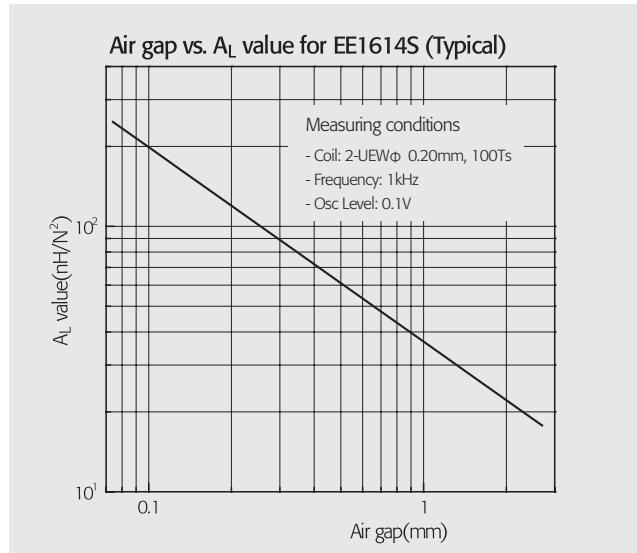
2) Temperature rise should be considered for design before choosing the final core size.

Material	A _L -value (nH/N ²)	μe	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	810 ± 25%	1540	0.00	0.23	PL-5 EE1313S
PL-7	810 ± 25%	1540	0.00	0.19	PL-7 EE1313S
	145 ± 15%	280	0.10		PL-7 EE1313S AL145
	46 ± 10%	87	0.50		PL-7 EE1313S AL46
	28 ± 5%	53	1.00		PL-7 EE1313S AL28
PL-9	940 ± 25%	1790	0.00	0.17 (80°C)	PL-9 EE1313S
PL-11	800 ± 25%	1520	0.00	0.17	PL-11 EE1313S
SM-50	1350 ± 25%	2570	0.00		SM-50 EE1313S
SM-60	1620 ± 25%	3080	0.00		SM-60 EE1313S
SM-70S	1700 ± 25%	3230	0.00		SM-70S EE1313S
SM-100	2600 ± 30%	4940	0.00		SM-100 EE1313S

EE1614S



Parameter	Symbol	Value	Unit
Core constant	C1	1.921	mm ⁻¹
Effective path length	le	35.5	mm
Effective area	Ae	18.4	mm ²
Effective volume	Ve	655	mm ³
Center leg area	Ac	18.2	mm ²
Winding area	Aw	43.6	mm ²
Weight of set	W	3.2	g



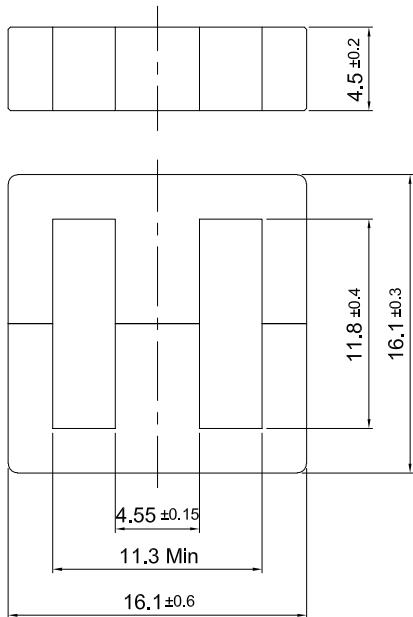
Calculated Output Power		(Unit : W)			
Circuit type		Switching Frequency			
		20kHz	50kHz	100kHz	250kHz
Push-pull converter		7	11	15	30
Flyback converter		2	4	5	10
Forward converter		3	6	8	15

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

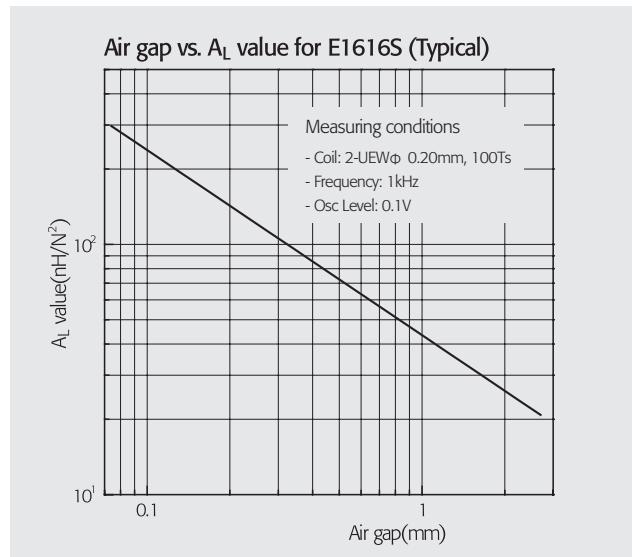
2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	1100 ± 25%	1680	0.00	0.40	PL-5 EE1614S
PL-7	1100 ± 25%	1680	0.00	0.33	PL-7 EE1614S
	200 ± 15%	306	0.10		PL-7 EE1614S AL200
	62 ± 10%	95	0.50		PL-7 EE1614S AL62
	37 ± 7%	57	1.00		PL-7 EE1614S AL37
PL-9	1300 ± 25%	1990	0.00	0.30 (80°C)	PL-9 EE1614S
PL-11	1200 ± 25%	1830	0.00	0.30	PL-11 EE1614S
SM-50	1900 ± 25%	2900	0.00		SM-50 EE1614S
SM-60	2280 ± 25%	3480	0.00		SM-60 EE1614S
SM-70S	2300 ± 25%	3510	0.00		SM-70S EE1614S
SM-100	3400 ± 30%	5200	0.00		SM-100 EE1614S

EE1616S EF16



Parameter	Symbol	Value	Unit
Core constant	C1	1.930	mm ⁻¹
Effective path length	le	37.7	mm
Effective area	Ae	19.5	mm ²
Effective volume	Ve	737	mm ³
Center leg area	Ac	20.4	mm ²
Winding area	Aw	43.3	mm ²
Weight of set	W	3.7	g



Calculated Output Power

(Unit : W)

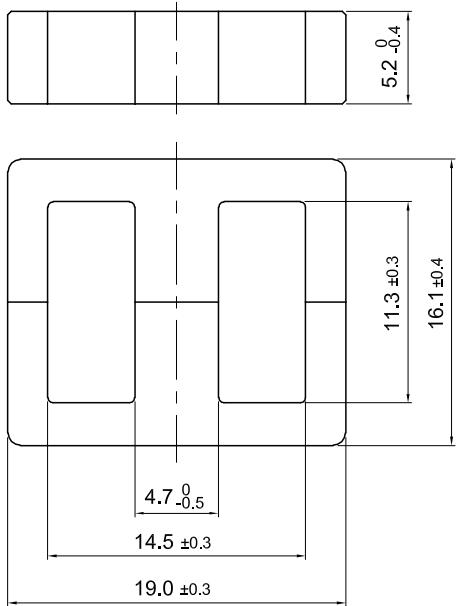
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	7	12	16	32
Flyback converter	2	4	5	11
Forward converter	4	6	8	16

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

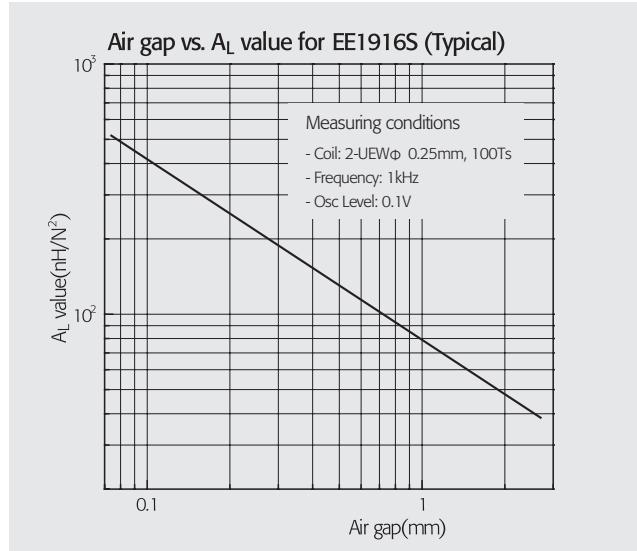
2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	1100 ± 25%	1690	0.00	0.45	PL-5 EE1616S
PL-7	1100 ± 25%	1690	0.00	0.38	PL-7 EE1616S
	240 ± 15%	370	0.10		PL-7 EE1616S AL240
	73 ± 7%	112	0.50		PL-7 EE1616S AL73
	43 ± 5%	66	1.00		PL-7 EE1616S AL43
PL-9	1300 ± 25%	2000	0.00	0.31 (80°C)	PL-9 EE1616S
PL-11	1200 ± 25%	1840	0.00	0.31	PL-11 EE1616S
SM-50	2000 ± 25%	3070	0.00		SM-50 EE1616S
SM-60	2400 ± 25%	3680	0.00		SM-60 EE1616S
SM-70S	2600 ± 25%	3990	0.00		SM-70S EE1616S
SM-100	3550 ± 30%	5450	0.00		SM-100 EE1616S

EE1916S



Parameter	Symbol	Value	Unit
Core constant	C1	1.743	mm ¹
Effective path length	le	39.9	mm
Effective area	Ae	22.8	mm ²
Effective volume	Ve	913	mm ³
Center leg area	Ac	22.2	mm ²
Winding area	Aw	56.7	mm ²
Weight of set	W	4.6	g



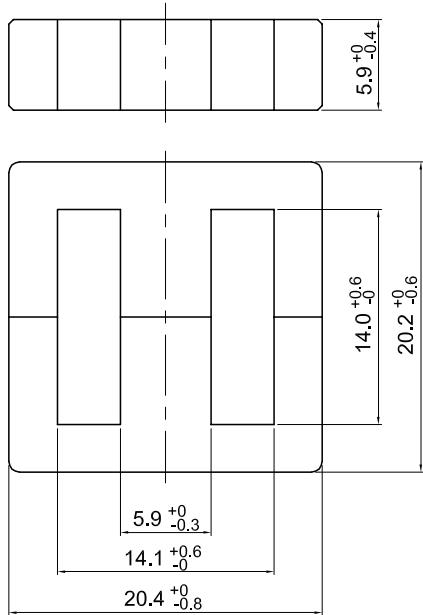
Calculated Output Power		(Unit : W)			
Circuit type		Switching Frequency			
		20kHz	50kHz	100kHz	250kHz
Push-pull converter		11	18	25	48
Flyback converter		4	6	8	16
Forward converter		6	9	12	24

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

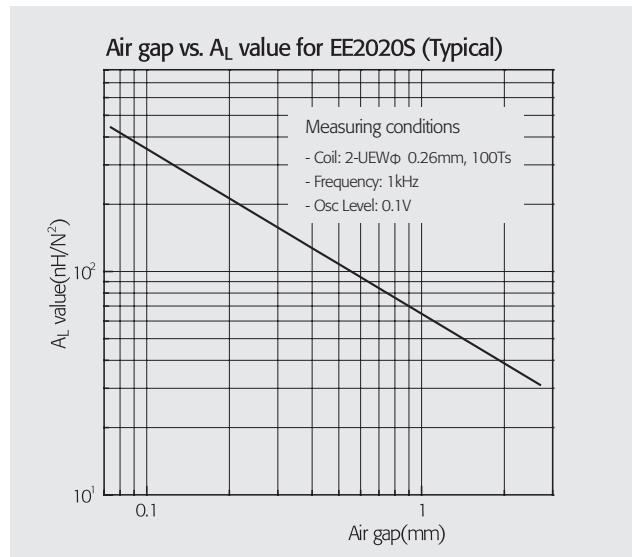
2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	1250 ± 25%	1730	0.00	0.55	PL-5 EE1916S
PL-7	1250 ± 25%	1730	0.00	0.46	PL-7 EE1916S
	420 ± 15%	580	0.10		PL-7 EE1916S AL420
	130 ± 9%	180	0.50		PL-7 EE1916S AL130
	80 ± 7%	110	1.00		PL-7 EE1916S AL80
PL-9	1480 ± 25%	2050	0.00	0.38 (80°C)	PL-9 EE1916S
PL-11	1300 ± 25%	1800	0.00	0.38	PL-11 EE1916S
SM-50	2250 ± 25%	3120	0.00		SM-50 EE1916S
SM-60	2700 ± 25%	3740	0.00		SM-60 EE1916S
SM-70S	2800 ± 25%	3880	0.00		SM-70S EE1916S
SM-100	3850 ± 30%	5340	0.00		SM-100 EE1916S

EE2020S EF20



Parameter	Symbol	Value	Unit
Core constant	C1	1.431	mm ⁻¹
Effective path length	le	46.1	mm
Effective area	Ae	32.2	mm ²
Effective volume	Ve	1480	mm ³
Center leg area	Ac	32.7	mm ²
Winding area	Aw	61.8	mm ²
Weight of set	W	7.5	g



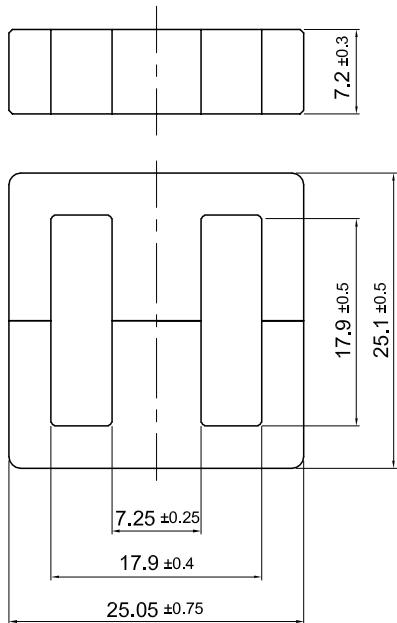
Calculated Output Power		(Unit : W)			
Circuit type	Switching Frequency				
	20kHz	50kHz	100kHz	250kHz	
Push-pull converter	17	28	38	74	
Flyback converter	6	9	13	25	
Forward converter	8	14	19	37	

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

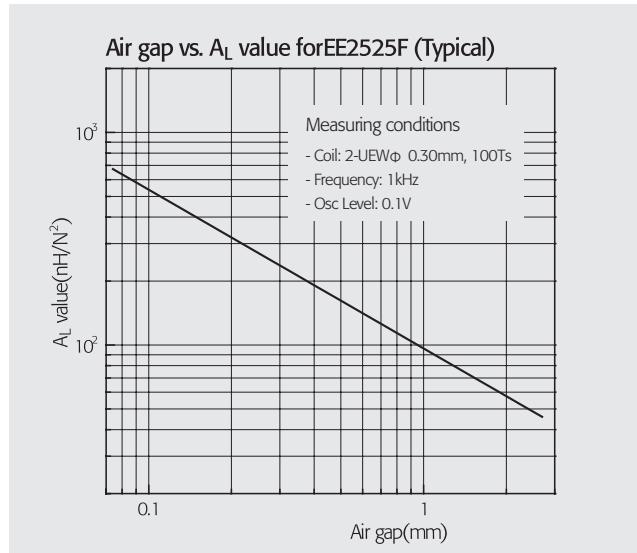
2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	1540 ± 25%	1750	0.00	0.89	PL-5 EE2020S
PL-7	1540 ± 25%	1750	0.00	0.74	PL-7 EE2020S
	355 ± 15%	400	0.10		PL-7 EE2020S AL355
	110 ± 8%	130	0.50		PL-7 EE2020S AL110
	63 ± 5%	72	1.00		PL-7 EE2020S AL63
PL-9	1830 ± 25%	2080	0.00	0.61 (80°C)	PL-9 EE2020S
PL-11	1600 ± 25%	1820	0.00	0.61	PL-11 EE2020S
SM-50	2800 ± 25%	3190	0.00		SM-50 EE2020S
SM-60	3360 ± 25%	3830	0.00		SM-60 EE2020S
SM-70S	3600 ± 25%	4100	0.00		SM-70S EE2020S
SM-100	4850 ± 30%	5520	0.00		SM-100 EE2020S

EE2525F EF25



Parameter	Symbol	Value	Unit
Core constant	C1	1.114	mm ¹
Effective path length	le	57.8	mm
Effective area	Ae	51.8	mm ²
Effective volume	Ve	2990	mm ³
Center leg area	Ac	52.1	mm ²
Winding area	Aw	95.3	mm ²
Weight of set	W	15	g



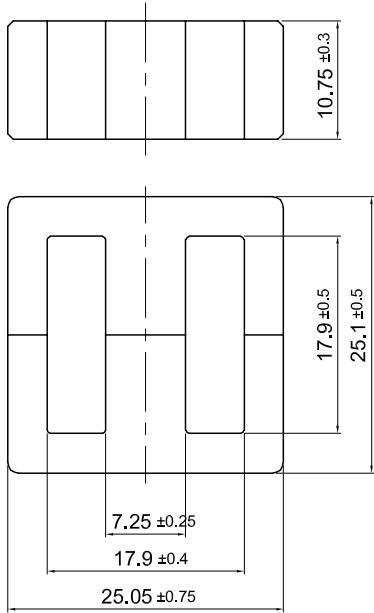
Calculated Output Power		(Unit : W)			
Circuit type		Switching Frequency			
		20kHz	50kHz	100kHz	250kHz
Push-pull converter		42	68	95	184
Flyback converter		14	23	32	61
Forward converter		21	34	47	92

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

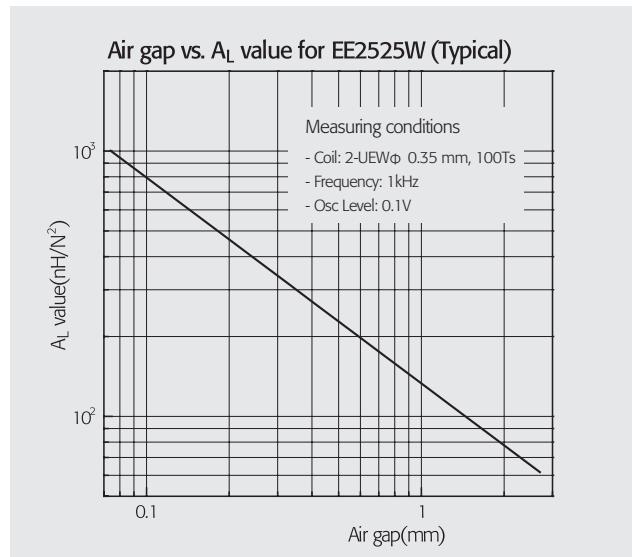
2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	2100 ± 25%	1860	0.00	1.80	PL-5 EE2525F
PL-7	2100 ± 25%	1860	0.00	1.50	PL-7 EE2525F
	540 ± 15%	480	0.10		PL-7 EE2525F AL540
	160 ± 9%	140	0.50		PL-7 EE2525F AL160
	97 ± 7%	86	1.00		PL-7 EE2525F AL97
PL-9	2350 ± 25%	2080	0.00	1.23 (80°C)	PL-9 EE2525F
PL-11	2200 ± 25%	1950	0.00	1.23	PL-11 EE2525F
SM-50	4000 ± 25%	3540	0.00		SM-50 EE2525F
SM-60	4800 ± 25%	4250	0.00		SM-60 EE2525F
SM-70S	4900 ± 25%	4340	0.00		SM-70S EE2525F
SM-100	6500 ± 30%	5760	0.00		SM-100 EE2525F

EE2525W EF25/11



Parameter	Symbol	Value	Unit
Core constant	C1	0.746	mm ⁻¹
Effective path length	le	57.8	mm
Effective area	Ae	77.3	mm ²
Effective volume	Ve	4470	mm ³
Center leg area	Ac	77.9	mm ²
Winding area	Aw	95.3	mm ²
Weight of set	W	22	g



Calculated Output Power

(Unit : W)

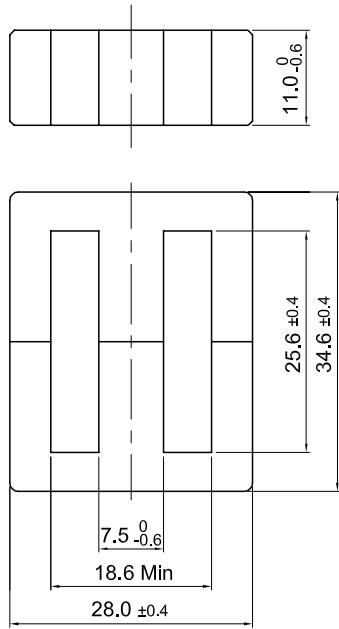
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	63	102	141	275
Flyback converter	21	34	47	92
Forward converter	31	51	71	137

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

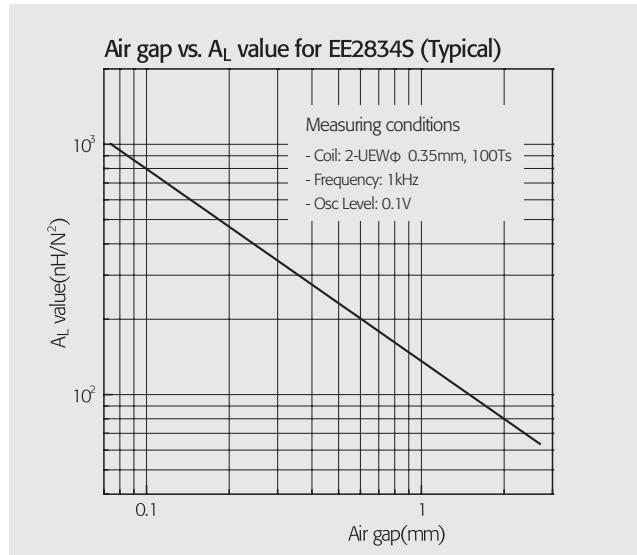
2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	3150 ± 25%	1870	0.00	2.70	PL-5 EE2525W
PL-7	3150 ± 25%	1870	0.00	2.25	PL-7 EE2525W
	790 ± 17%	470	0.10		PL-7 EE2525W AL790
	230 ± 13%	140	0.50		PL-7 EE2525W AL230
	130 ± 8%	80	1.00		PL-7 EE2525W AL130
PL-9	3500 ± 25%	2080	0.00	1.85 (80°C)	PL-9 EE2525W
PL-11	3300 ± 25%	1960	0.00	1.85	PL-11 EE2525W
SM-50	5800 ± 25%	3440	0.00		SM-50 EE2525W
SM-60	6960 ± 25%	4130	0.00		SM-60 EE2525W
SM-70S	7500 ± 25%	4450	0.00		SM-70S EE2525W
SM-100	9700 ± 30%	5760	0.00		SM-100 EE2525W

EE2834S



Parameter	Symbol	Value	Unit
Core constant	C1	0.867	mm ⁻¹
Effective path length	le	75.6	mm
Effective area	Ae	87.1	mm ²
Effective volume	Ve	6580	mm ³
Center leg area	Ac	77.0	mm ²
Winding area	Aw	151.1	mm ²
Weight of set	W	28	g



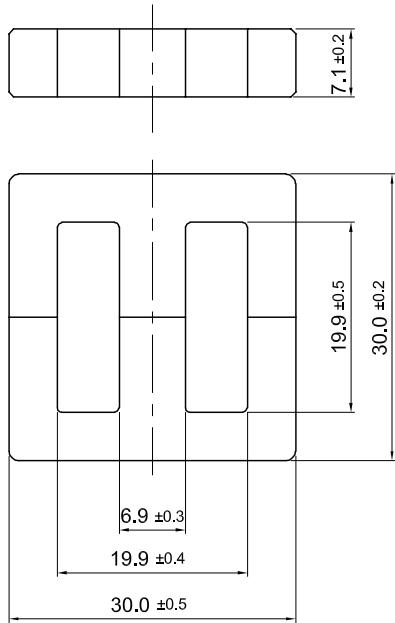
Calculated Output Power		(Unit : W)			
Circuit type		Switching Frequency			
		20kHz	50kHz	100kHz	250kHz
Push-pull converter		112	182	252	490
Flyback converter		37	60	84	163
Forward converter		56	91	126	245

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

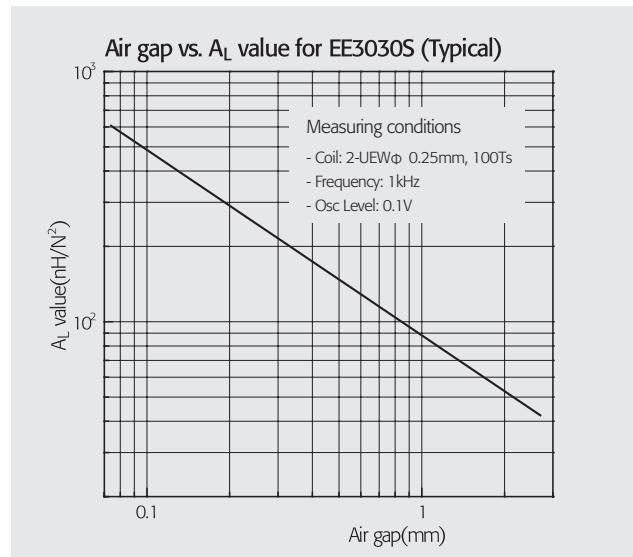
2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	2600 ± 25%	1790	0.00	3.95	PL-5 EE2834S
PL-7	2600 ± 25%	1790	0.00	3.30	PL-7 EE2834S
	790 ± 15%	540	0.10		PL-7 EE2834S AL790
	230 ± 7%	160	0.50		PL-7 EE2834S AL230
	135 ± 5%	90	1.00		PL-7 EE2834S AL135
PL-9	3050 ± 25%	2100	0.00	2.70 (80°C)	PL-9 EE2834S
PL-11	2700 ± 25%	1860	0.00	2.70	PL-11 EE2834S
SM-50	5070 ± 25%	3500	0.00		SM-50 EE2834S
SM-60	6090 ± 25%	4200	0.00		SM-60 EE2834S
SM-70S	7070 ± 25%	4880	0.00		SM-70S EE2834S
SM-100	7970 ± 30%	5500	0.00		SM-100 EE2834S

EE3030S E30/15/7



Parameter	Symbol	Value	Unit
Core constant	C1	1.089	mm ⁻¹
Effective path length	le	65.4	mm
Effective area	Ae	60.0	mm ²
Effective volume	Ve	3920	mm ³
Center leg area	Ac	48.9	mm ²
Winding area	Aw	129.0	mm ²
Weight of set	W	21	g



Calculated Output Power

(Unit : W)

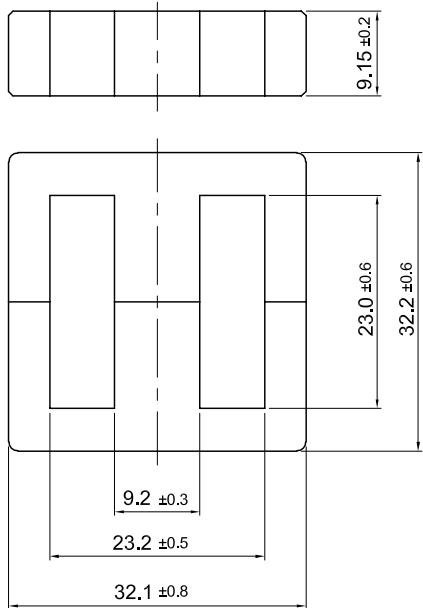
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	66	107	149	289
Flyback converter	22	36	50	96
Forward converter	33	54	74	144

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

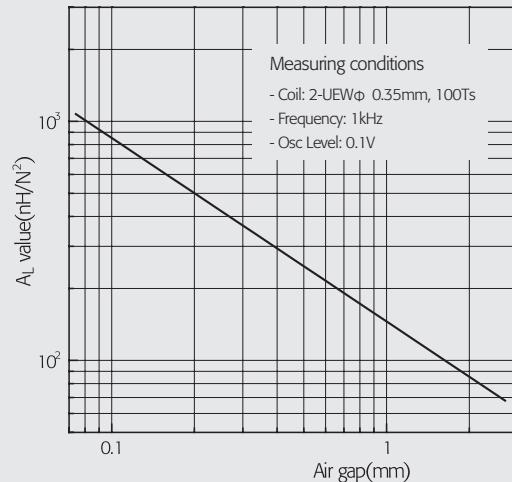
Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	2000 ± 25%	1730	0.00	2.36	PL-5 EE3030S
PL-7	2000 ± 25%	1730	0.00	1.96	PL-7 EE3030S
	480 ± 10%	420	0.10		PL-7 EE3030S AL480
	150 ± 7%	130	0.50		PL-7 EE3030S AL150
	90 ± 5%	80	1.00		PL-7 EE3030S AL90
PL-9	2350 ± 25%	2040	0.00	1.61 (80°C)	PL-9 EE3030S
PL-11	2100 ± 25%	1820	0.00	1.61	PL-11 EE3030S

EE3232S EF32



Parameter	Symbol	Value	Unit
Core constant	C1	0.894	mm ⁻¹
Effective path length	le	74.3	mm
Effective area	Ae	83.1	mm ²
Effective volume	Ve	6180	mm ³
Center leg area	Ac	84.1	mm ²
Winding area	Aw	161.0	mm ²
Weight of set	W	31	g

Air gap vs. A_L value for EE3232S (Typical)



Calculated Output Power (Unit : W)

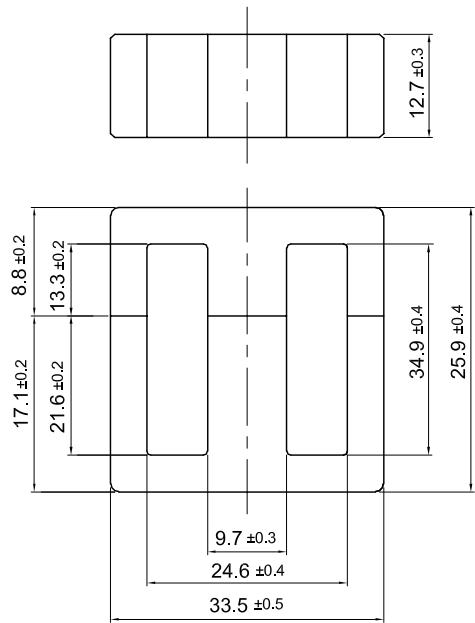
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	114	185	257	499
Flyback converter	38	62	86	166
Forward converter	57	93	128	250

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

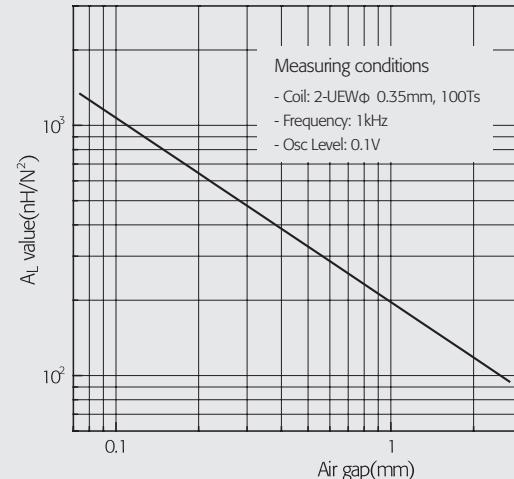
2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	2400 ± 25%	1700	0.00	3.71	PL-5 EE3232S
PL-7	2400 ± 25%	1700	0.00	3.10	PL-7 EE3232S
	860 ± 10%	610	0.10		PL-7 EE3232S AL860
	250 ± 7%	170	0.50		PL-7 EE3232S AL250
	115 ± 5%	80	1.00		PL-7 EE3232S AL115
PL-9	2850 ± 25%	2020	0.00	2.54 (80°C)	PL-9 EE3232S
PL-11	2500 ± 25%	1770	0.00	2.54	PL-11 EE3232S

EE3335S



Parameter	Symbol	Value	Unit
Core constant	C1	0.693	mm ⁻¹
Effective path length	le	81.0	mm
Effective area	Ae	116.0	mm ²
Effective volume	Ve	9450	mm ³
Center leg area	Ac	123.0	mm ²
Winding area	Aw	192.0	mm ²
Weight of set	W	47	g

Air gap vs. A_L value for EE3335S (Typical)

Calculated Output Power

(Unit : W)

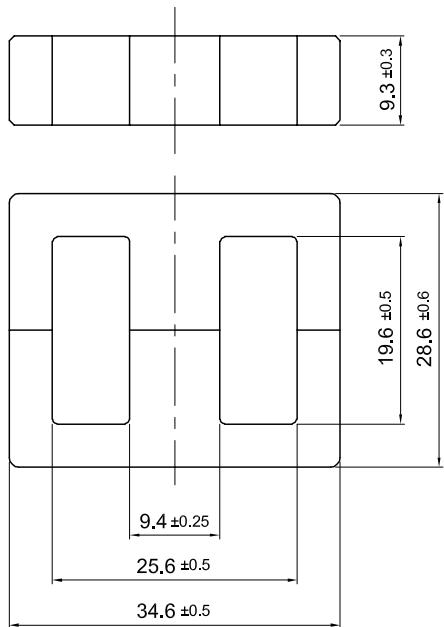
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	190	309	427	831
Flyback converter	63	103	142	277
Forward converter	95	154	214	416

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

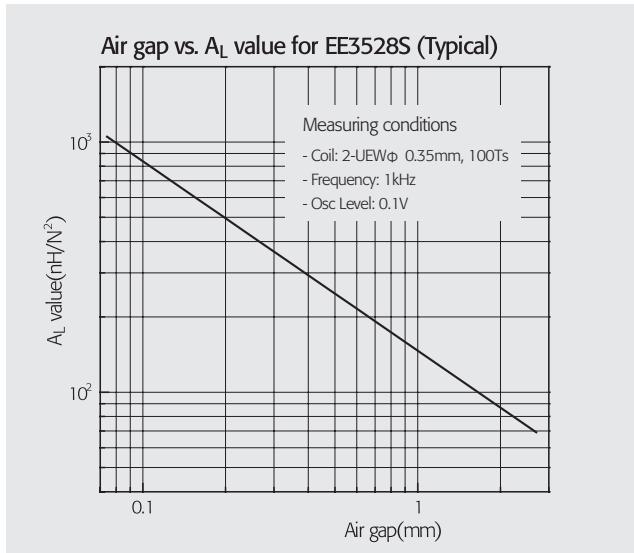
2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	3300 ± 25%	1820	0.00	5.70	PL-5 EE3335S
PL-7	3300 ± 25%	1820	0.00	4.75	PL-7 EE3335S
	1065 ± 15%	590	0.10		PL-7 EE3335S AL1065
	335 ± 7%	180	0.50		PL-7 EE3335S AL335
	195 ± 5%	110	1.00		PL-7 EE3335S AL195
PL-9	3700 ± 25%	2040	0.00	3.90 (80°C)	PL-9 EE3335S
PL-11	3400 ± 25%	1870	0.00	3.90	PL-11 EE3335S

EE3528S E375



Parameter	Symbol	Value	Unit
Core constant	C1	0.821	mm ¹
Effective path length	le	69.7	mm
Effective area	Ae	84.8	mm ²
Effective volume	Ve	5910	mm ³
Center leg area	Ac	87.4	mm ²
Winding area	Aw	158.0	mm ²
Weight of set	W	29	g



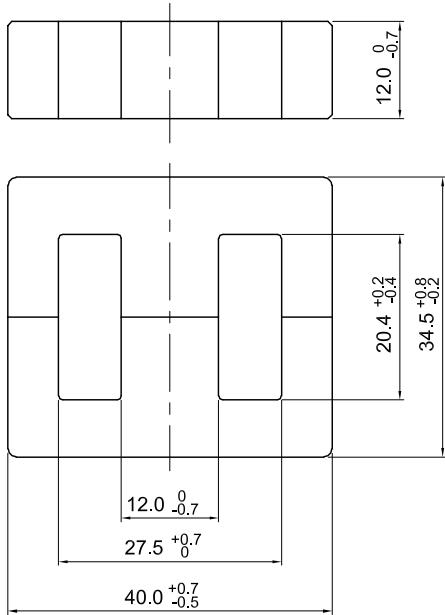
Calculated Output Power		(Unit : W)			
Circuit type		Switching Frequency			
		20kHz	50kHz	100kHz	250kHz
Push-pull converter		114	186	257	500
Flyback converter		38	62	86	167
Forward converter		57	93	129	250

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

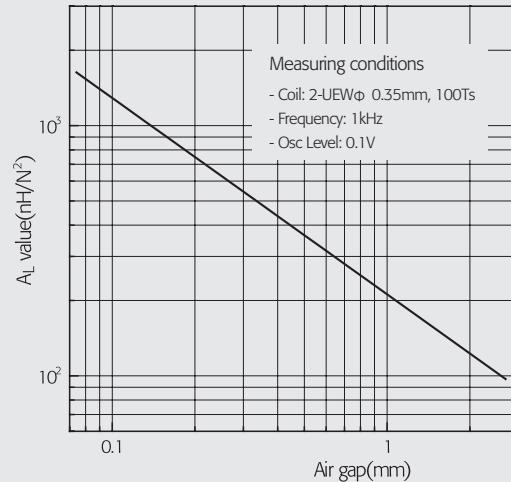
2) Temperature rise should be considered for design before choosing the final core size.

Material	A _L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	2600 ± 25%	1700	0.00	3.55	PL-5 EE3528S
PL-7	2600 ± 25%	1700	0.00	2.96	PL-7 EE3528S
	830 ± 15%	540	0.10		PL-7 EE3528S AL830
	250 ± 7%	160	0.50		PL-7 EE3528S AL250
	145 ± 5%	90	1.00		PL-7 EE3528S AL145
PL-9	3100 ± 25%	2020	0.00	2.43 (80°C)	PL-9 EE3528S
PL-11	2700 ± 25%	1760	0.00	2.43	PL-11 EE3528S

EE4035S



Parameter	Symbol	Value	Unit
Core constant	C1	0.523	mm ⁻¹
Effective path length	le	77.1	mm
Effective area	Ae	147.0	mm ²
Effective volume	Ve	11370	mm ³
Center leg area	Ac	135.0	mm ²
Winding area	Aw	164.0	mm ²
Weight of set	W	59	g

Air gap vs. A_L value for EE4035S (Typical)

Calculated Output Power

(Unit : W)

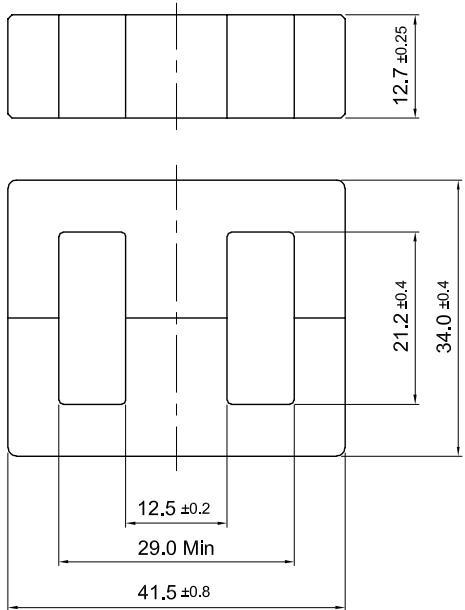
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	206	334	463	900
Flyback converter	69	111	154	300
Forward converter	103	167	231	450

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	4000 \pm 25%	1660	0.00	6.85	PL-5 EE4035S
PL-7	4000 \pm 25%	1660	0.00	5.70	PL-7 EE4035S
	1275 \pm 15%	530	0.10		PL-7 EE4035S AL1275
	370 \pm 7%	150	0.50		PL-7 EE4035S AL370
	210 \pm 5%	90	1.00		PL-7 EE4035S AL210
PL-9	4800 \pm 25%	2000	0.00	4.70 (80°C)	PL-9 EE4035S
PL-11	4200 \pm 25%	1750	0.00	4.70	PL-11 EE4035S

EE4133N E21



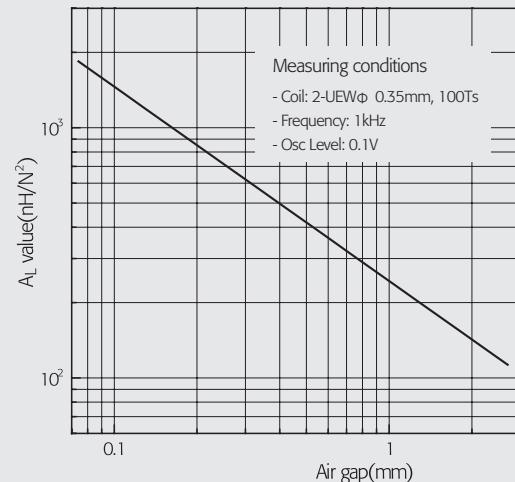
Parameter	Symbol	Value	Unit
Core constant	C1	0.500	mm ¹
Effective path length	le	79.0	mm
Effective area	Ae	157.0	mm ²
Effective volume	Ve	12470	mm ³
Center leg area	Ac	158.0	mm ²
Winding area	Aw	180.0	mm ²
Weight of set	W	64	g

Calculated Output Power		(Unit : W)			
Circuit type		Switching Frequency			
		20kHz	50kHz	100kHz	250kHz
Push-pull converter		241	392	542	1054
Flyback converter		80	131	181	351
Forward converter		121	196	271	527

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

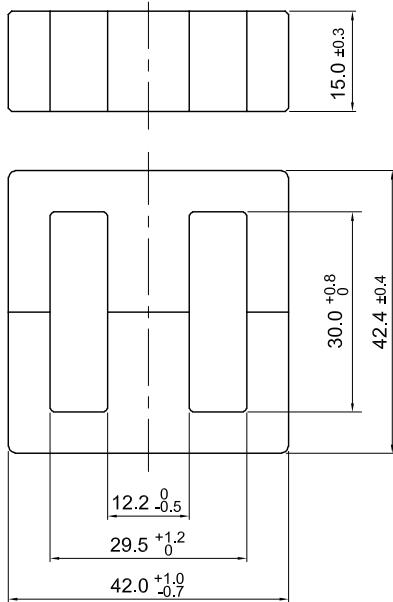
2) Temperature rise should be considered for design before choosing the final core size.

Air gap vs. A_L value for EE4133N (Typical)

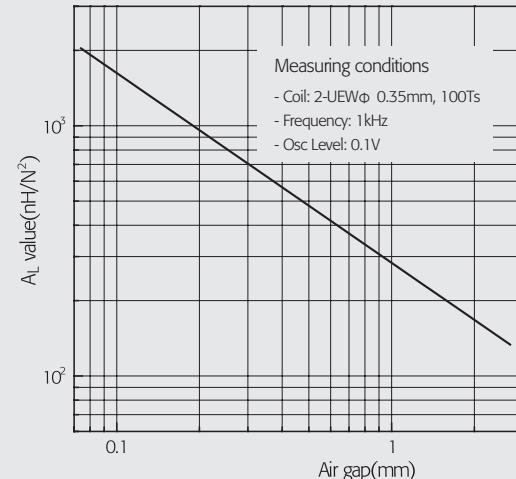


Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	4200 ± 25%	1670	0.00	7.50	PL-5 EE4133N
PL-7	4200 ± 25%	1670	0.00	6.25	PL-7 EE4133N
	1410 ± 15%	560	0.10		PL-7 EE4133N AL1410
	425 ± 10%	170	0.50		PL-7 EE4133N AL425
	245 ± 6%	100	1.00		PL-7 EE4133N AL245
PL-9	4900 ± 25%	1950	0.00	5.15 (80°C)	PL-9 EE4133N
PL-11	4400 ± 25%	1750	0.00	5.15	PL-11 EE4133N

EE4242B E42/21/15



Parameter	Symbol	Value	Unit
Core constant	C1	0.547	mm ⁻¹
Effective path length	le	97.9	mm
Effective area	Ae	178.0	mm ²
Effective volume	Ve	17510	mm ³
Center leg area	Ac	176.0	mm ²
Winding area	Aw	278.0	mm ²
Weight of set	W	88	g

Air gap vs. A_L value for EE4242B (Typical)

Calculated Output Power

(Unit : W)

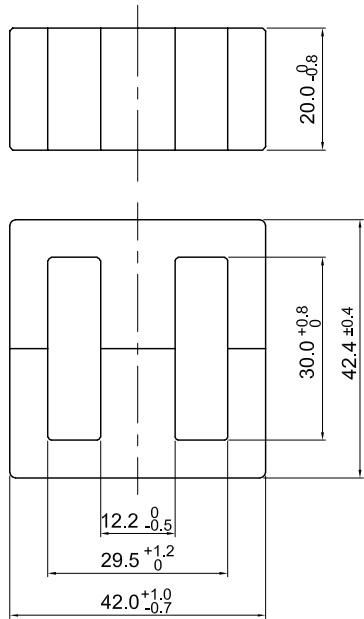
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	422	686	950	1846
Flyback converter	141	229	317	615
Forward converter	211	343	475	923

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	3800 ± 25%	1650	0.00	10.60	PL-5 EE4242B
PL-7	3800 ± 25%	1650	0.00	8.80	PL-7 EE4242B
	1560 ± 15%	680	0.10		PL-7 EE4242B AL1560
	480 ± 10%	210	0.50		PL-7 EE4242B AL480
	260 ± 6%	110	1.00		PL-7 EE4242B AL260
PL-9	4500 ± 25%	1960	0.00	7.20 (80°C)	PL-9 EE4242B
PL-11	4000 ± 25%	1740	0.00	7.20	PL-11 EE4242B

EE4242S E42/21/20

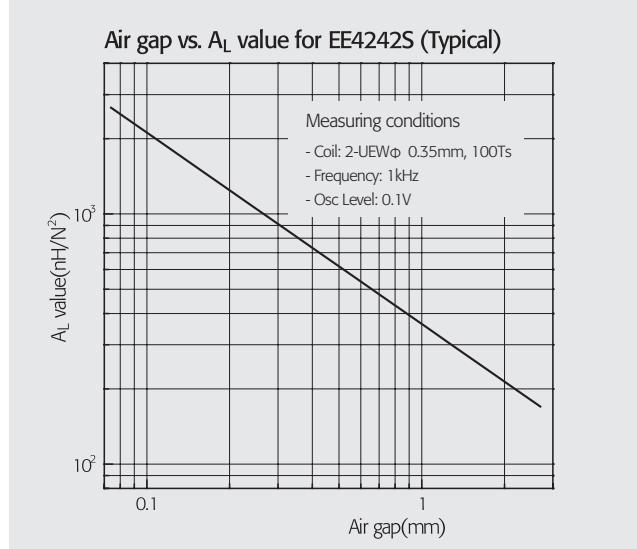


Parameter	Symbol	Value	Unit
Core constant	C1	0.416	mm ¹
Effective path length	le	97.8	mm
Effective area	Ae	235.0	mm ²
Effective volume	Ve	23000	mm ³
Center leg area	Ac	234.0	mm ²
Winding area	Aw	275.0	mm ²
Weight of set	W	116	g

Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	551	896	1240	2411
Flyback converter	184	299	413	804
Forward converter	276	448	620	1206

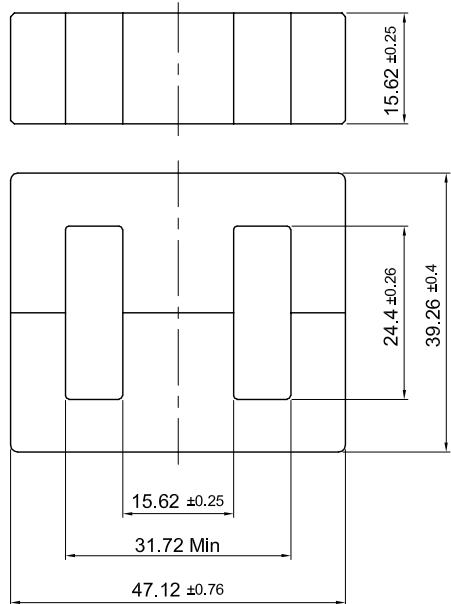
Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.



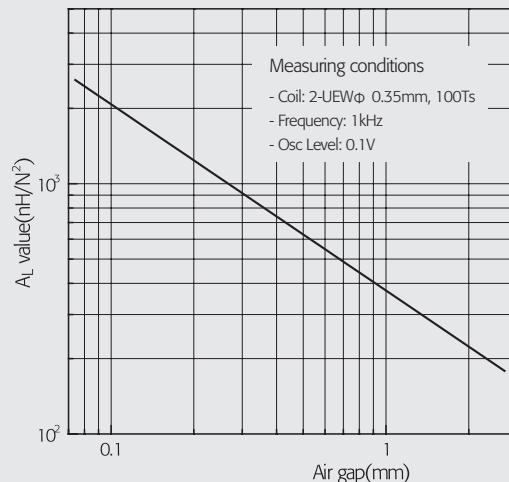
Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	5000 ± 25%	1650	0.00	14.00	PL-5 EE4242S
PL-7	5000 ± 25%	1650	0.00	11.60	PL-7 EE4242S
	2060 ± 18%	680	0.10		PL-7 EE4242S AL2060
	620 ± 13%	210	0.50		PL-7 EE4242S AL620
	360 ± 7%	120	1.00		PL-7 EE4242S AL360
PL-9	6000 ± 25%	1990	0.00	9.50 (80°C)	PL-9 EE4242S
PL-11	5200 ± 25%	1720	0.00	9.50	PL-11 EE4242S

EE4740S E625



Parameter	Symbol	Value	Unit
Core constant	C1	0.380	mm ⁻¹
Effective path length	le	89.2	mm
Effective area	Ae	234.0	mm ²
Effective volume	Ve	20920	mm ³
Center leg area	Ac	228.0	mm ²
Winding area	Aw	205.0	mm ²
Weight of set	W	107	g

Air gap vs. AL value for EE4740S (Typical)



Calculated Output Power

(Unit : W)

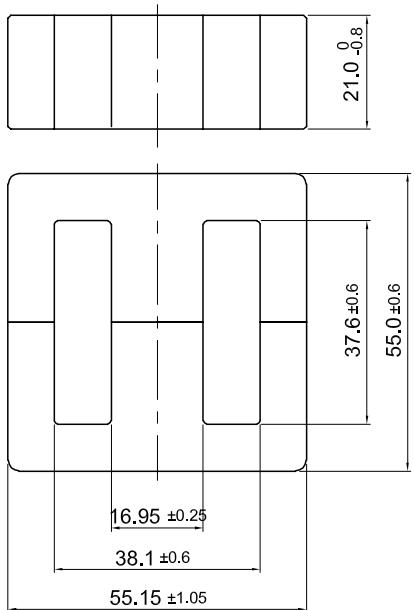
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	409	665	921	1790
Flyback converter	136	222	307	597
Forward converter	205	332	460	895

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A _L -value (nH/N ²)	μe	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	5500 ± 25%	1660	0.00	12.60	PL-5 EE4740S
PL-7	5500 ± 25%	1660	0.00	10.50	PL-7 EE4740S
	2025 ± 15%	610	0.10		PL-7 EE4740S AL2025
	645 ± 10%	190	0.50		PL-7 EE4740S AL645
	375 ± 7%	110	1.00		PL-7 EE4740S AL375
PL-9	6600 ± 25%	2000	0.00	8.60 (80°C)	PL-9 EE4740S
PL-11	5700 ± 25%	1720	0.00	8.60	PL-11 EE4740S

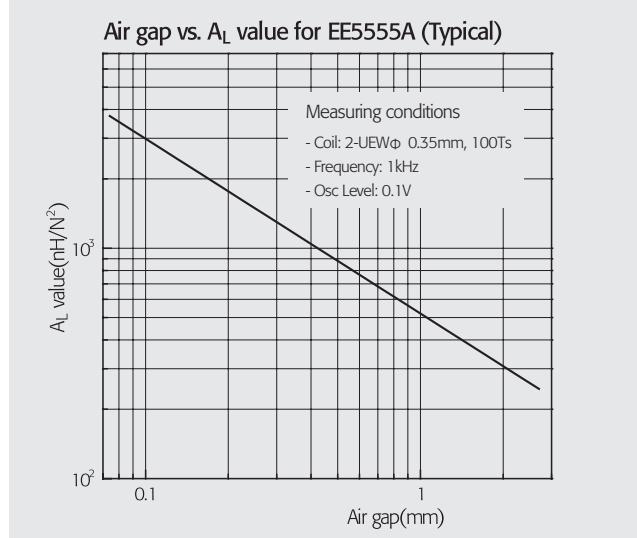
EE5555A E55/28/21



Parameter	Symbol	Value	Unit
Core constant	C1	0.350	mm ¹
Effective path length	le	123.0	mm
Effective area	Ae	352.0	mm ²
Effective volume	Ve	43470	mm ³
Center leg area	Ac	349.0	mm ²
Winding area	Aw	397.0	mm ²
Weight of set	W	221	g

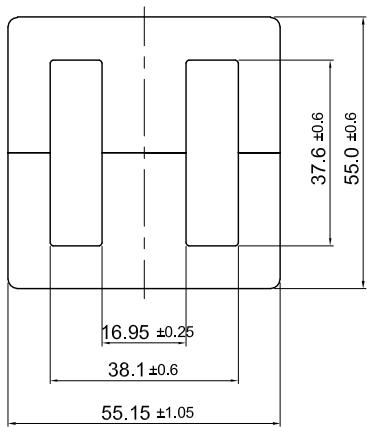
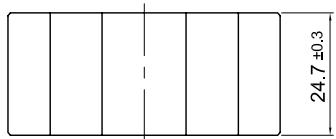
Calculated Output Power		(Unit : W)			
Circuit type		Switching Frequency			
		20kHz	50kHz	100kHz	250kHz
Push-pull converter		1192	1937	2682	5214
Flyback converter		397	646	894	1738
Forward converter		596	968	1341	2607

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.
2) Temperature rise should be considered for design before choosing the final core size.

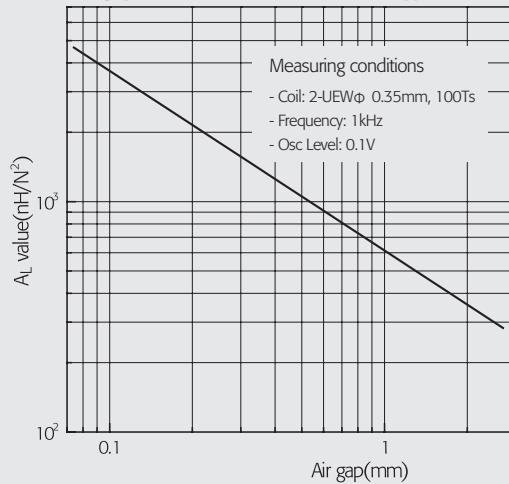


Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	$6000 \pm 25\%$	1670	0.00	26.10	PL-5 EE5555A
PL-7	$6000 \pm 25\%$	1670	0.00	22.00	PL-7 EE5555A
	$2870 \pm 15\%$	800	0.10		PL-7 EE5555A AL2870
	$910 \pm 10\%$	250	0.50		PL-7 EE5555A AL910
	$520 \pm 8\%$	140	1.00		PL-7 EE5555A AL520
PL-9	$7100 \pm 25\%$	1980	0.00	20.00 (80°C)	PL-9 EE5555A
PL-11	$6300 \pm 25\%$	1750	0.00	20.00	PL-11 EE5555A

EE5555S E55/28/25



Parameter	Symbol	Value	Unit
Core constant	C1	0.292	mm ⁻¹
Effective path length	le	123.0	mm
Effective area	Ae	422.0	mm ²
Effective volume	Ve	52130	mm ³
Center leg area	Ac	418.0	mm ²
Winding area	Aw	397.0	mm ²
Weight of set	W	265	g

Air gap vs. A_L value for EE5555S (Typical)

Calculated Output Power

(Unit : W)

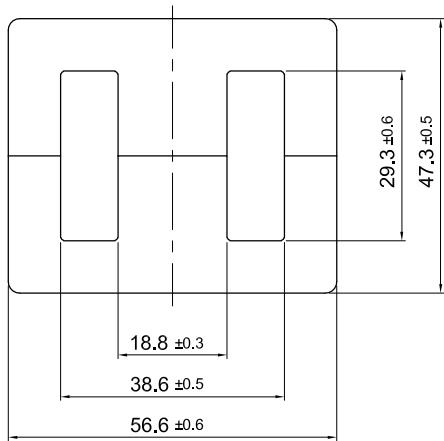
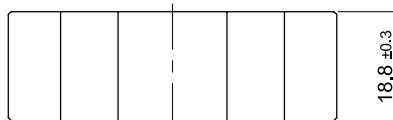
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	1429	2322	3215	6251
Flyback converter	476	774	1072	2084
Forward converter	714	1161	1607	3126

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

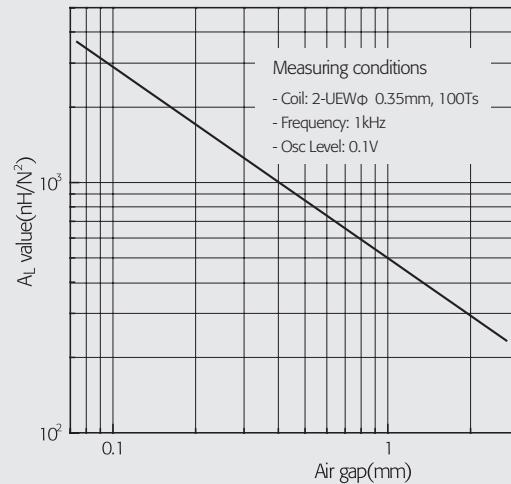
Material	A _L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	7200 ± 25%	1670	0.00	31.50	PL-5 EE5555S
PL-7	7200 ± 25%	1670	0.00	26.50	PL-7 EE5555S
	3620 ± 15%	840	0.10		PL-7 EE5555S AL3620
	1090 ± 12%	250	0.50		PL-7 EE5555S AL1090
	620 ± 10%	140	1.00		PL-7 EE5555S AL620
PL-9	8500 ± 25%	1970	0.00	24.00 (80°C)	PL-9 EE5555S
PL-11	7500 ± 25%	1740	0.00	24.00	PL-11 EE5555S

EE5747S E75



Parameter	Symbol	Value	Unit
Core constant	C1	0.312	mm ¹
Effective path length	le	107.0	mm
Effective area	Ae	343.0	mm ²
Effective volume	Ve	36710	mm ³
Center leg area	Ac	353.0	mm ²
Winding area	Aw	290.0	mm ²
Weight of set	W	189	g

Air gap vs. A_L value for EE5747S (Typical)



Calculated Output Power (Unit : W)

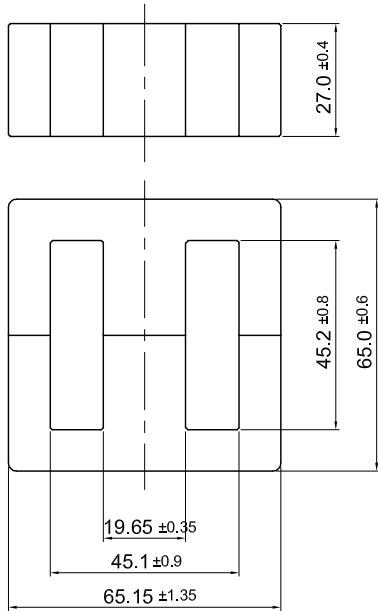
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	848	1379	1909	3712
Flyback converter	283	460	636	1237
Forward converter	424	689	954	1856

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

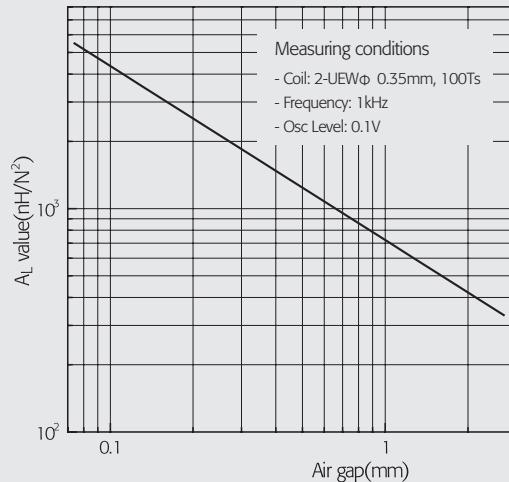
2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	7000 ± 25%	1740	0.00	22.50	PL-5 EE5747S
PL-7	7000 ± 25%	1740	0.00	19.00	PL-7 EE5747S
	2780 ± 15%	690	0.10		PL-7 EE5747S AL2780
	880 ± 12%	220	0.50		PL-7 EE5747S AL880
	500 ± 8%	120	1.00		PL-7 EE5747S AL500
PL-9	8200 ± 25%	2040	0.00	17.00 (80°C)	PL-9 EE5747S
PL-11	7300 ± 25%	1810	0.00	17.00	PL-11 EE5747S

EE6565S E65/32/27



Parameter	Symbol	Value	Unit
Core constant	C1	0.274	mm ⁻¹
Effective path length	le	147.0	mm
Effective area	Ae	535.0	mm ²
Effective volume	Ve	78700	mm ³
Center leg area	Ac	530.0	mm ²
Winding area	Aw	575.0	mm ²
Weight of set	W	399	g

Air gap vs. A_L value for EE6565S (Typical)

Calculated Output Power

(Unit : W)

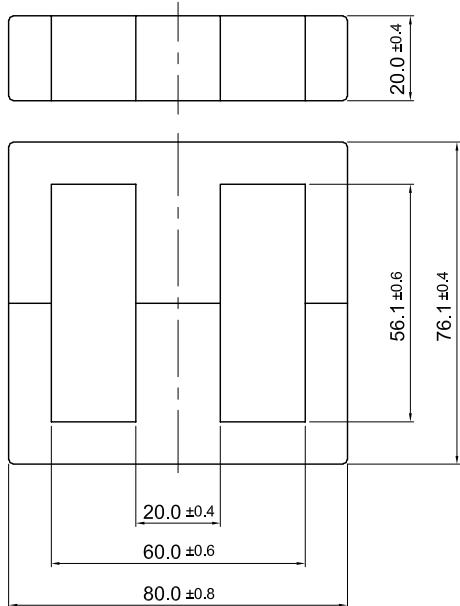
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	2624	4263	5903	11479
Flyback converter	875	1421	1968	3826
Forward converter	1312	2132	2952	5739

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A _L -value (nH/N ²)	μe	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	8000 ± 25%	1740	0.00	48.00	PL-5 EE6565S
PL-7	8000 ± 25%	1740	0.00	40.00	PL-7 EE6565S
	4150 ± 15%	900	0.10		PL-7 EE6565S AL4150
	1265 ± 12%	280	0.50		PL-7 EE6565S AL1265
	730 ± 10%	160	1.00		PL-7 EE6565S AL730
PL-9	9150 ± 25%	1990	0.00	36.00 (80°C)	PL-9 EE6565S
PL-11	8300 ± 25%	1810	0.00	36.00	PL-11 EE6565S

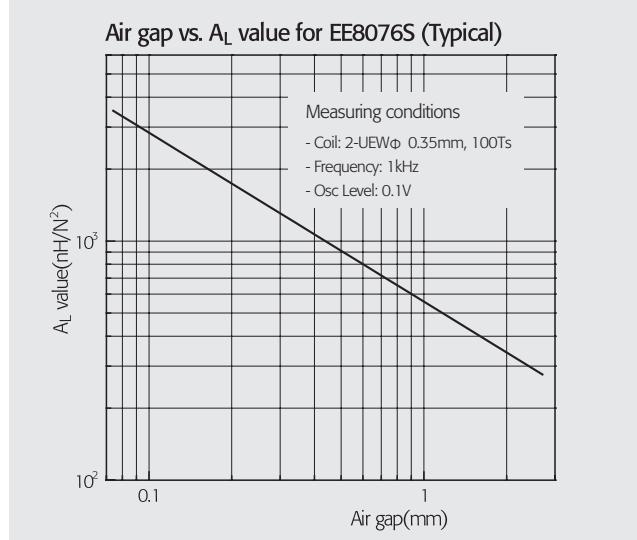
EE8076S



Parameter	Symbol	Value	Unit
Core constant	C1	0.475	mm ¹
Effective path length	le	189.8	mm
Effective area	Ae	400.0	mm ²
Effective volume	Ve	75920	mm ³
Center leg area	Ac	400.0	mm ²
Winding area	Aw	1122.0	mm ²
Weight of set	W	391	g

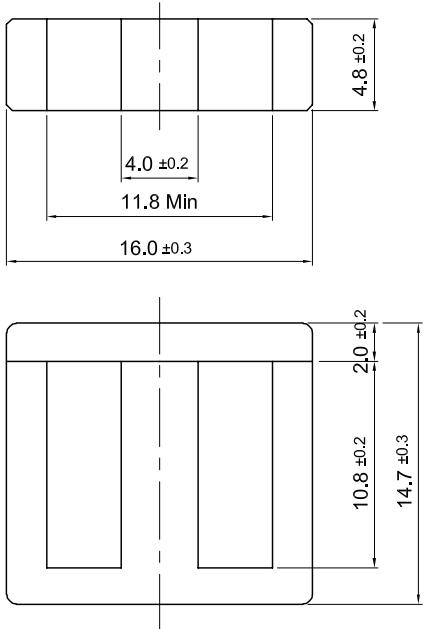
Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	3828	6220	8612	16746
Flyback converter	1276	2073	2871	5582
Forward converter	1914	3110	4306	8373

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.
2) Temperature rise should be considered for design before choosing the final core size.

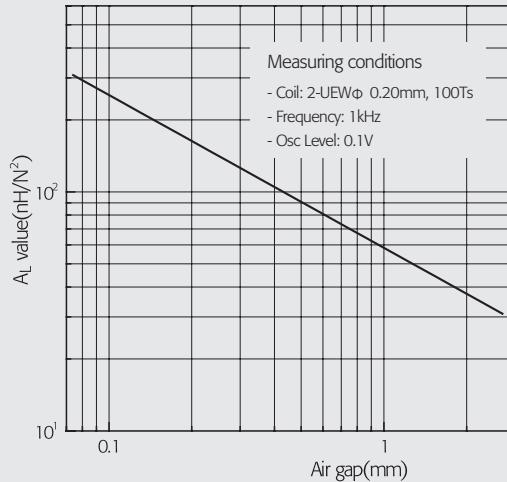


Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	4500 ± 25%	1700	0.00	45.80	PL-5 EE8076S
PL-7	4500 ± 25%	1700	0.00	38.30	PL-7 EE8076S
	2680 ± 15%	1010	0.10		PL-7 EE8076S AL2680
	945 ± 12%	360	0.50		PL-7 EE8076S AL945
	560 ± 10%	210	1.00		PL-7 EE8076S AL560
PL-9	5200 ± 25%	1960	0.00	34.50 (80°C)	PL-9 EE8076S
PL-11	4700 ± 25%	1780	0.00	34.50	PL-11 EE8076S

EI1614S



Parameter	Symbol	Value	Unit
Core constant	C1	1.900	mm ⁻¹
Effective path length	le	35.9	mm
Effective area	Ae	18.8	mm ²
Effective volume	Ve	676	mm ³
Center leg area	Ac	19.2	mm ²
Winding area	Aw	43.7	mm ²
Weight of set	W	3.4	g

Air gap vs. A_L value for EI1614S (Typical)

Calculated Output Power

(Unit : W)

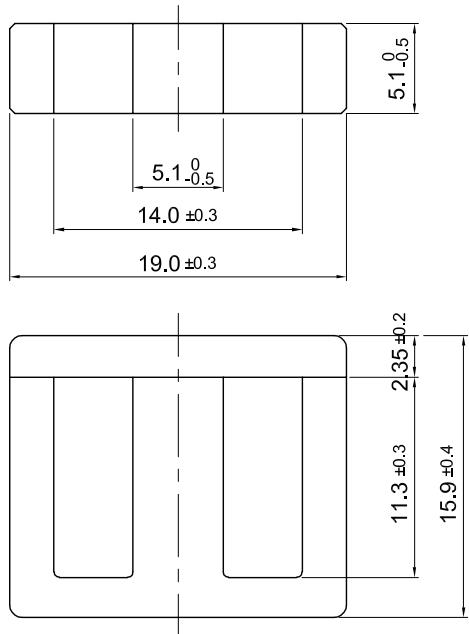
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	7	11	16	31
Flyback converter	2	4	5	10
Forward converter	4	6	8	15

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	1250 ± 25%	1890	0.00	0.42	PL-5 EI1614S
PL-7	1250 ± 25%	1890	0.00	0.35	PL-7 EI1614S
	255 ± 15%	390	0.10		PL-7 EI1614S AL255
	90 ± 10%	140	0.50		PL-7 EI1614S AL90
	59 ± 5%	89	1.00		PL-7 EI1614S AL59
PL-9	1330 ± 25%	2010	0.00	0.28 (80°C)	PL-9 EI1614S
PL-11	1300 ± 25%	1960	0.00	0.28	PL-11 EI1614S
SM-50	1950 ± 25%	2950	0.00		SM-50 EI1614S
SM-60	2340 ± 25%	3540	0.00		SM-60 EI1614S
SM-70S	2400 ± 25%	3630	0.00		SM-70S EI1614S
SM-100	3450 ± 30%	5210	0.00		SM-100 EI1614S

EI1916S

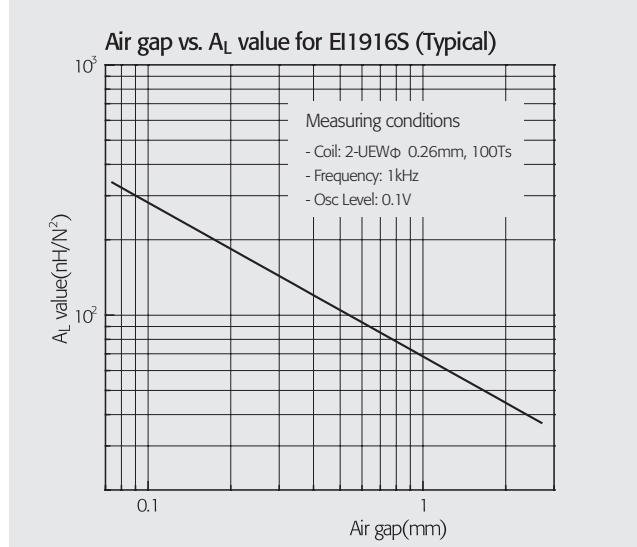


Parameter	Symbol	Value	Unit
Core constant	C1	1.681	mm ¹
Effective path length	le	39.2	mm
Effective area	Ae	23.3	mm ²
Effective volume	Ve	913	mm ³
Center leg area	Ac	23.5	mm ²
Winding area	Aw	51.6	mm ²
Weight of set	W	4.6	g

Calculated Output Power		(Unit : W)			
Circuit type		Switching Frequency			
		20kHz	50kHz	100kHz	250kHz
Push-pull converter		10	17	23	45
Flyback converter		3	6	8	15
Forward converter		5	8	12	22

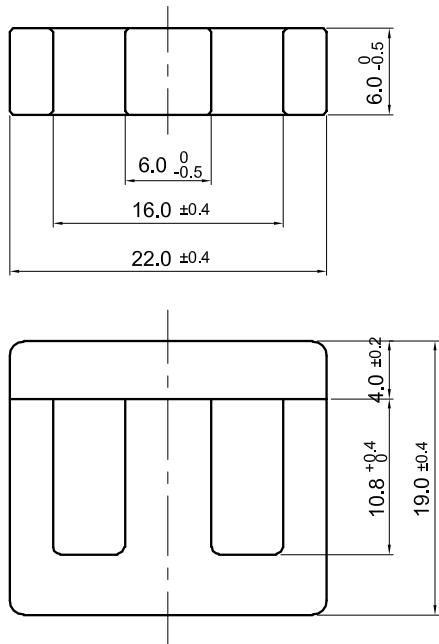
Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

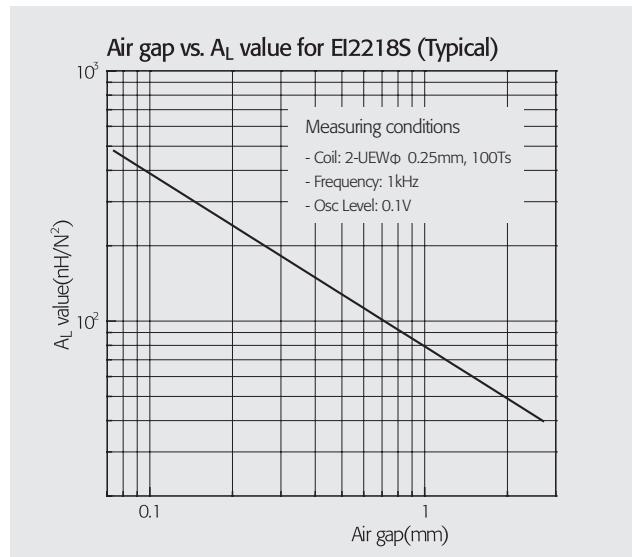


Material	A _L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	1300 ± 25%	1740	0.00	0.55	PL-5 EI1916S
PL-7	1300 ± 25%	1740	0.00	0.46	PL-7 EI1916S
	280 ± 15%	370	0.10		PL-7 EI1916S AL280
	103 ± 8%	138	0.50		PL-7 EI1916S AL103
	69 ± 5%	92	1.00		PL-7 EI1916S AL69
PL-9	1530 ± 25%	2050	0.00	0.38 (80°C)	PL-9 EI1916S
PL-11	1400 ± 25%	1870	0.00	0.38	PL-11 EI1916S
SM-50	2350 ± 25%	3140	0.00		SM-50 EI1916S
SM-60	2820 ± 25%	3770	0.00		SM-60 EI1916S
SM-70S	2900 ± 25%	3880	0.00		SM-70S EI1916S
SM-100	4000 ± 30%	5350	0.00		SM-100 EI1916S

EI2218S



Parameter	Symbol	Value	Unit
Core constant	C1	1.148	mm ⁻¹
Effective path length	le	42.5	mm
Effective area	Ae	37.0	mm ²
Effective volume	Ve	1570	mm ³
Center leg area	Ac	33.0	mm ²
Winding area	Aw	56.3	mm ²
Weight of set	W	8.4	g



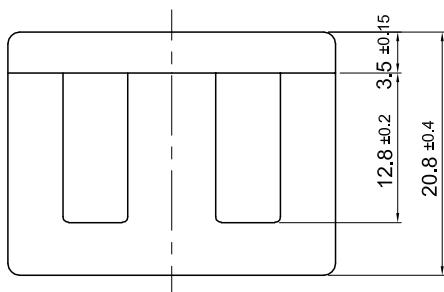
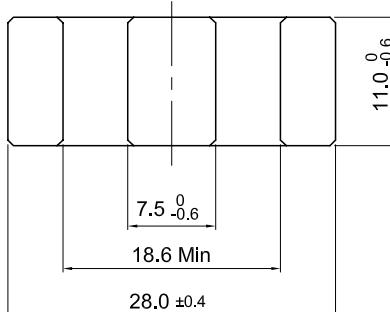
Calculated Output Power		(Unit : W)			
Circuit type	Switching Frequency				
	20kHz	50kHz	100kHz	250kHz	
Push-pull converter	18	29	40	78	
Flyback converter	6	10	13	26	
Forward converter	9	14	20	39	

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	1950 ± 25%	1780	0.00	0.95	PL-5 EI2218S
PL-7	1950 ± 25%	1780	0.00	0.80	PL-7 EI2218S
	390 ± 15%	360	0.10		PL-7 EI2218S AL390
	125 ± 10%	110	0.50		PL-7 EI2218S AL125
	80 ± 7%	70	1.00		PL-7 EI2218S AL80
PL-9	2100 ± 25%	1920	0.00	0.65 (80°C)	PL-9 EI2218S
PL-11	2000 ± 25%	1830	0.00	0.65	PL-11 EI2218S
SM-50	3500 ± 25%	3200	0.00		SM-50 EI2218S
SM-60	4200 ± 25%	3840	0.00		SM-60 EI2218S
SM-70S	4350 ± 25%	3970	0.00		SM-70S EI2218S
SM-100	5950 ± 30%	5430	0.00		SM-100 EI2218S

EI2820S



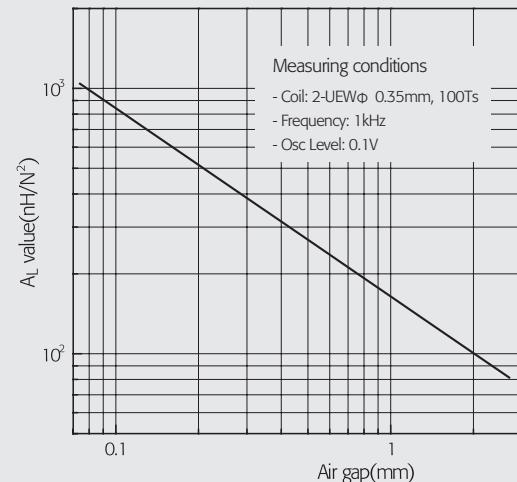
Parameter	Symbol	Value	Unit
Core constant	C1	0.586	mm ¹
Effective path length	le	49.5	mm
Effective area	Ae	84.4	mm ²
Effective volume	Ve	4170	mm ³
Center leg area	Ac	77.0	mm ²
Winding area	Aw	75.5	mm ²
Weight of set	W	22	g

Calculated Output Power		(Unit : W)			
Circuit type		Switching Frequency			
		20kHz	50kHz	100kHz	250kHz
Push-pull converter		54	88	122	238
Flyback converter		18	29	41	79
Forward converter		27	44	61	119

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

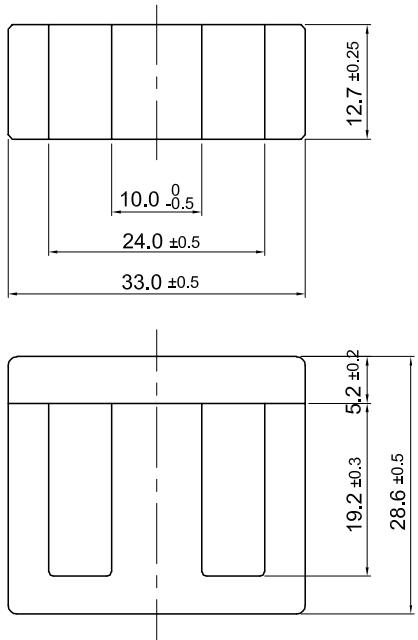
2) Temperature rise should be considered for design before choosing the final core size.

Air gap vs. A_L value for EI2820S (Typical)

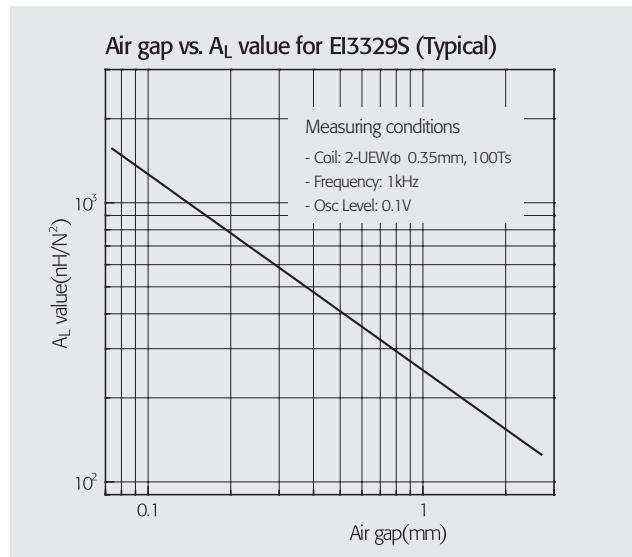


Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	$3800 \pm 25\%$	1770	0.00	2.52	PL-5 EI2820S
PL-7	$3800 \pm 25\%$	1770	0.00	2.10	PL-7 EI2820S
	$845 \pm 15\%$	390	0.10		PL-7 EI2820S AL845
	$265 \pm 7\%$	120	0.50		PL-7 EI2820S AL265
	$165 \pm 5\%$	80	1.00		PL-7 EI2820S AL165
PL-9	$4300 \pm 25\%$	2000	0.00	1.72 (80°C)	PL-9 EI2820S
PL-11	$4000 \pm 25\%$	1860	0.00	1.72	PL-11 EI2820S
SM-50	$7000 \pm 25\%$	3260	0.00		SM-50 EI2820S
SM-60	$8400 \pm 25\%$	3920	0.00		SM-60 EI2820S
SM-70S	$9000 \pm 25\%$	4200	0.00		SM-70S EI2820S
SM-100	$12000 \pm 30\%$	5590	0.00		SM-100 EI2820S

EI3329S



Parameter	Symbol	Value	Unit
Core constant	C1	0.567	mm ⁻¹
Effective path length	le	67.1	mm
Effective area	Ae	118.0	mm ²
Effective volume	Ve	7640	mm ³
Center leg area	Ac	123.0	mm ²
Winding area	Aw	136.0	mm ²
Weight of set	W	40	g

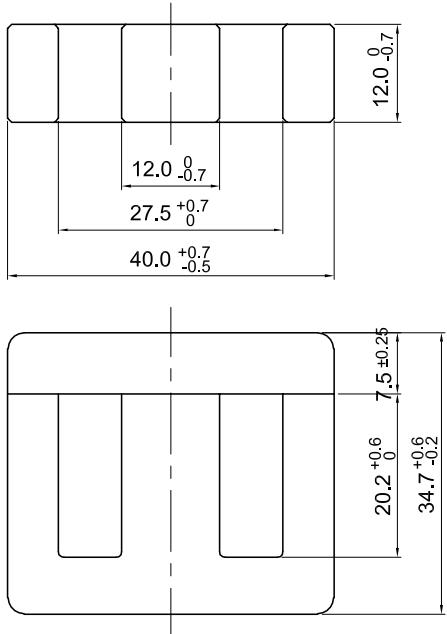


Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	137	222	308	599
Flyback converter	46	74	103	200
Forward converter	68	111	154	299

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.
2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	3800 ± 25%	1710	0.00	4.80	PL-5 EI3329S
PL-7	3800 ± 25%	1710	0.00	4.00	PL-7 EI3329S
	1270 ± 15%	570	0.10		PL-7 EI3329S AL1270
	410 ± 8%	180	0.50		PL-7 EI3329S AL410
	250 ± 6%	110	1.00		PL-7 EI3329S AL250
PL-9	4600 ± 25%	2070	0.00	3.26 (80°C)	PL-9 EI3329S
PL-11	4000 ± 25%	1800	0.00	3.26	PL-11 EI3329S

EI4035S

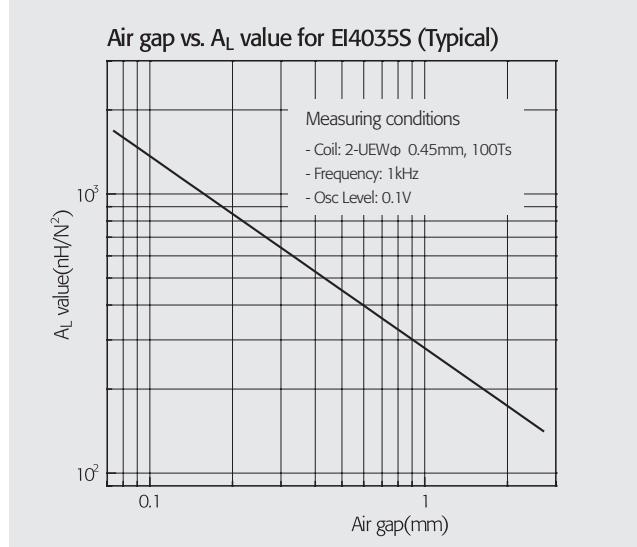


Parameter	Symbol	Value	Unit
Core constant	C1	0.526	mm ¹
Effective path length	le	77.4	mm
Effective area	Ae	147.0	mm ²
Effective volume	Ve	11390	mm ³
Center leg area	Ac	135.0	mm ²
Winding area	Aw	166.0	mm ²
Weight of set	W	59	g

Calculated Output Power		(Unit : W)			
Circuit type		Switching Frequency			
		20kHz	50kHz	100kHz	250kHz
Push-pull converter		208	338	468	911
Flyback converter		69	113	156	304
Forward converter		104	169	234	455

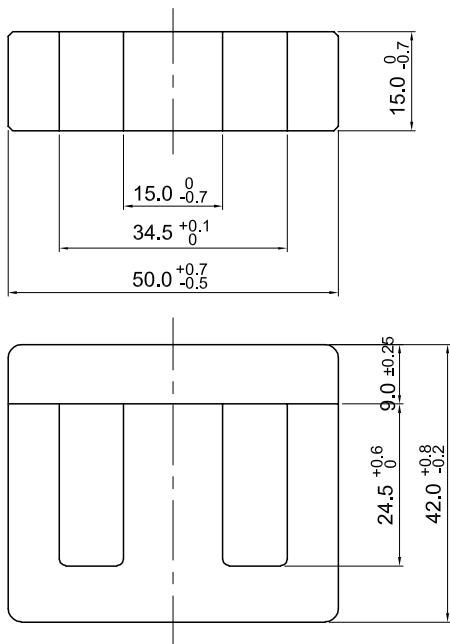
Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

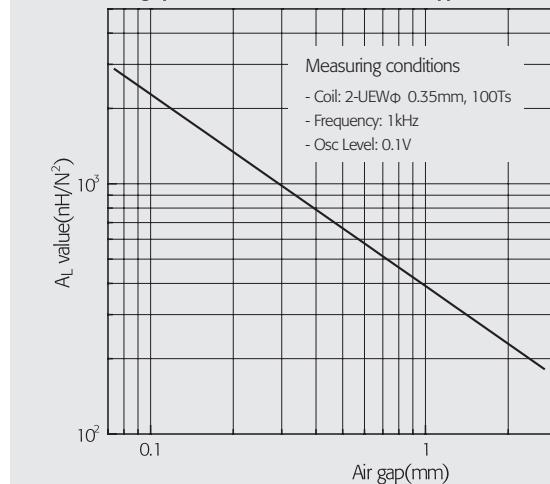


Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	4000 ± 25%	1670	0.00	6.85	PL-5 EI4035S
PL-7	4000 ± 25%	1670	0.00	5.70	PL-7 EI4035S
	1370 ± 15%	570	0.10		PL-7 EI4035S AL1370
	450 ± 10%	190	0.50		PL-7 EI4035S AL450
	280 ± 7%	120	1.00		PL-7 EI4035S AL280
PL-9	4800 ± 25%	2010	0.00	4.70 (80°C)	PL-9 EI4035S
PL-11	4200 ± 25%	1760	0.00	4.70	PL-11 EI4035S

EI5040S



Parameter	Symbol	Value	Unit
Core constant	C1	0.417	mm ⁻¹
Effective path length	le	95.0	mm
Effective area	Ae	227.0	mm ²
Effective volume	Ve	21660	mm ³
Center leg area	Ac	213.0	mm ²
Winding area	Aw	253.0	mm ²
Weight of set	W	112	g

Air gap vs. A_L value for EI5040S (Typical)

Calculated Output Power

(Unit : W)

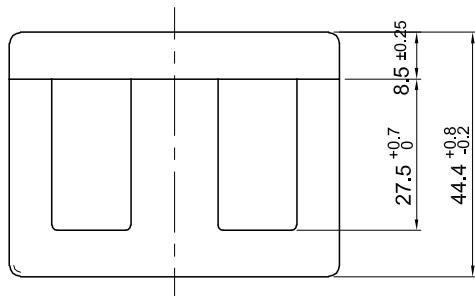
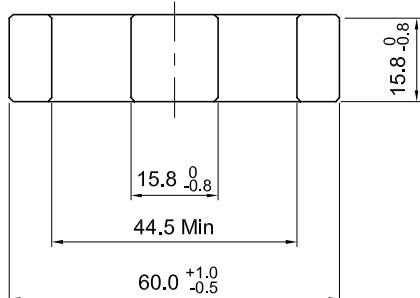
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	490	796	1102	2143
Flyback converter	163	265	367	714
Forward converter	245	398	551	1071

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	5200 ± 25%	1730	0.00	13.00	PL-5 EI5040S
PL-7	5200 ± 25%	1730	0.00	10.90	PL-7 EI5040S
	2300 ± 15%	760	0.10		PL-7 EI5040S AL2300
	645 ± 10%	210	0.50		PL-7 EI5040S AL645
	400 ± 8%	130	1.00		PL-7 EI5040S AL400
PL-9	6100 ± 25%	2020	0.00	8.90 (80°C)	PL-9 EI5040S
PL-11	5400 ± 25%	1790	0.00	8.90	PL-11 EI5040S

EI6044S



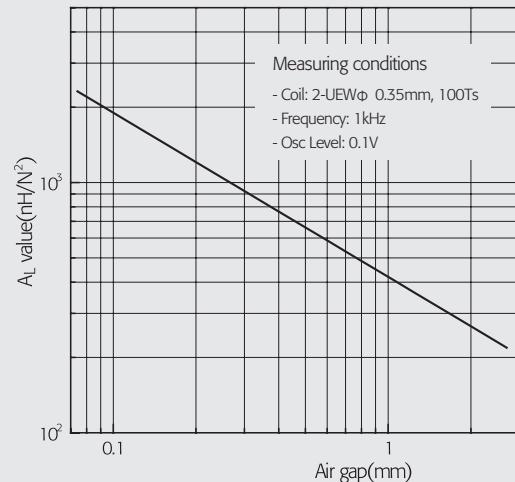
Parameter	Symbol	Value	Unit
Core constant	C1	0.452	mm ¹
Effective path length	le	110.0	mm
Effective area	Ae	244.0	mm ²
Effective volume	Ve	26950	mm ³
Center leg area	Ac	237.0	mm ²
Winding area	Aw	412.0	mm ²
Weight of set	W	138	g

Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	857	1393	1929	3751
Flyback converter	286	464	643	1250
Forward converter	429	697	965	1876

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

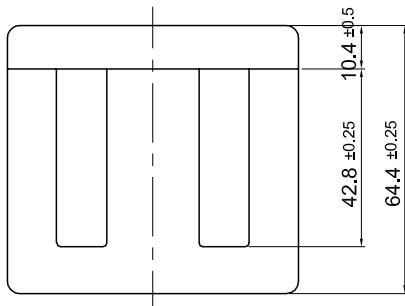
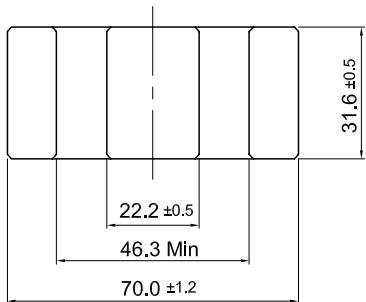
2) Temperature rise should be considered for design before choosing the final core size.

Air gap vs. A_L value for EI6044S (Typical)

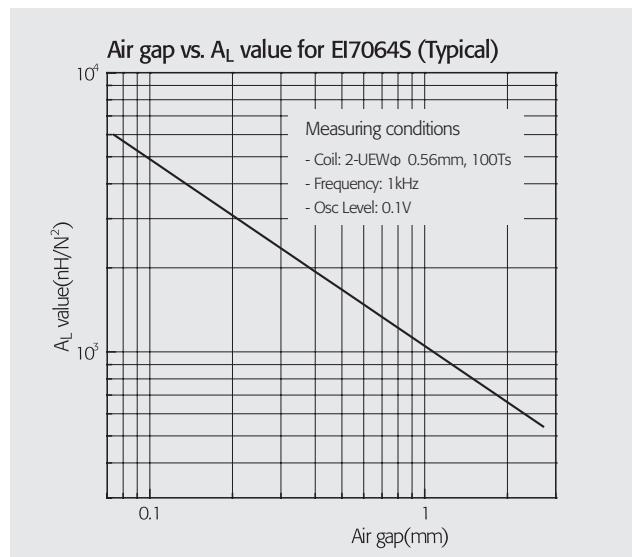


Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	4500 ± 25%	1650	0.00	16.30	PL-5 EI6044S
PL-7	4500 ± 25%	1650	0.00	13.50	PL-7 EI6044S
	1890 ± 15%	680	0.10		PL-7 EI6044S AL1890
	675 ± 10%	240	0.50		PL-7 EI6044S AL675
	415 ± 8%	150	1.00		PL-7 EI6044S AL415
PL-9	5500 ± 25%	1980	0.00	11.10 (80°C)	PL-9 EI6044S
PL-11	4700 ± 25%	1730	0.00	11.10	PL-11 EI6044S

EI7064S



Parameter	Symbol	Value	Unit
Core constant	C1	0.208	mm ⁻¹
Effective path length	le	145.0	mm
Effective area	Ae	698.0	mm ²
Effective volume	Ve	101530	mm ³
Center leg area	Ac	701.0	mm ²
Winding area	Aw	541.0	mm ²
Weight of set	W	519	g



Calculated Output Power

(Unit : W)

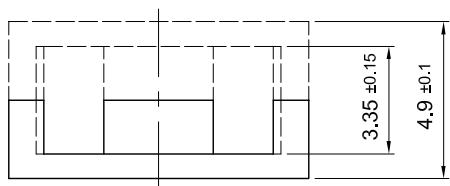
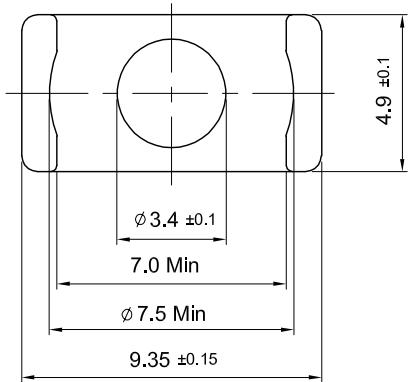
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	3221	5234	7246	14090
Flyback converter	1074	1745	2415	4697
Forward converter	1610	2617	3623	7045

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	10500 ± 25%	1740	0.00	61.50	PL-5 EI7064S
PL-7	10500 ± 25%	1740	0.00	51.50	PL-7 EI7064S
	4900 ± 15%	810	0.10		PL-7 EI7064S AL4900
	1650 ± 12%	270	0.50		PL-7 EI7064S AL1650
	1050 ± 10%	170	1.00		PL-7 EI7064S AL1050
PL-9	12000 ± 25%	1990	0.00	46.20 (80°C)	PL-9 EI7064S
PL-11	10900 ± 25%	1800	0.00	46.20	PL-11 EI7064S

EER0905S ER9.5



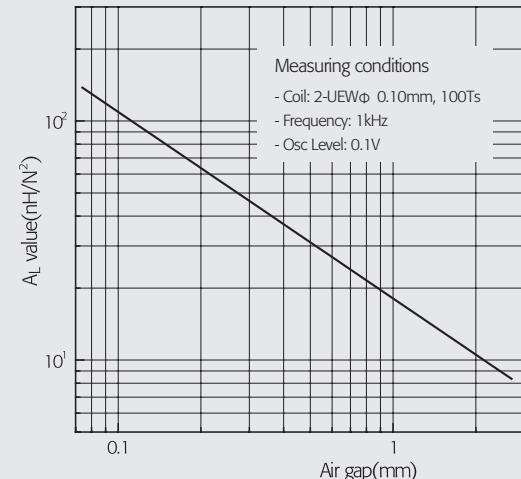
Parameter	Symbol	Value	Unit
Core constant	C1	1.670	mm ¹
Effective path length	le	14.2	mm
Effective area	Ae	8.5	mm ²
Effective volume	Ve	120	mm ³
Center leg area	Ac	9.1	mm ²
Winding area	Aw	7.2	mm ²
Weight of set	W	0.6	g

Calculated Output Power		(Unit : W)			
Circuit type		Switching Frequency			
		20kHz	50kHz	100kHz	250kHz
Push-pull converter		0.5	0.8	1.2	2.3
Flyback converter		0.2	0.3	0.4	0.8
Forward converter		0.3	0.4	0.6	1.1

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

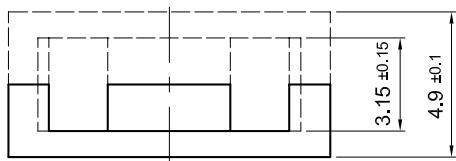
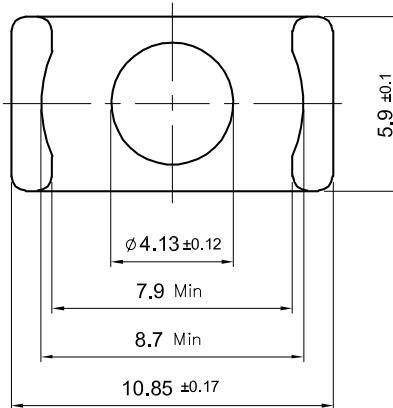
2) Temperature rise should be considered for design before choosing the final core size.

Air gap vs. A_L value for EER0905S (Typical)

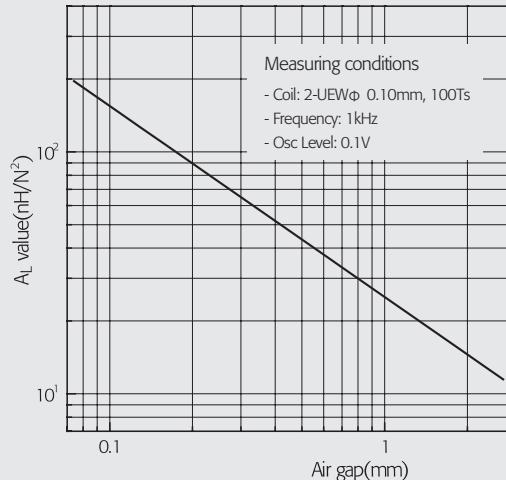


Material	A _L -value (nH/N ²)	μe	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	1100 ± 25%	1460	0.00	0.08	PL-5 EER0905S
PL-7	1100 ± 25%	1460	0.00	0.06	PL-7 EER0905S
	110 ± 10%	150	0.10		PL-7 EER0905S AL110
	32 ± 5%	43	0.50		PL-7 EER0905S AL32
	18 ± 5%	24	1.00		PL-7 EER0905S AL18
PL-9	1300 ± 25%	1730	0.00	0.05 (80°C)	PL-9 EER0905S
PL-11	1200 ± 25%	1590	0.00	0.05	PL-11 EER0905S
SM-50	2630 ± 25%	3490	0.00		SM-50 EER0905S
SM-60	3160 ± 25%	4200	0.00		SM-60 EER0905S
SM-70S	3670 ± 25%	4880	0.00		SM-70S EER0905S
SM-100	4140 ± 30%	5500	0.00		SM-100 EER0905S

EER1105S ER11/5



Parameter	Symbol	Value	Unit
Core constant	C1	1.230	mm ⁻¹
Effective path length	le	14.7	mm
Effective area	Ae	11.9	mm ²
Effective volume	Ve	174	mm ³
Center leg area	Ac	13.4	mm ²
Winding area	Aw	7.5	mm ²
Weight of set	W	1.0	g

Air gap vs. A_L value for EER1105S (Typical)

Calculated Output Power

(Unit : W)

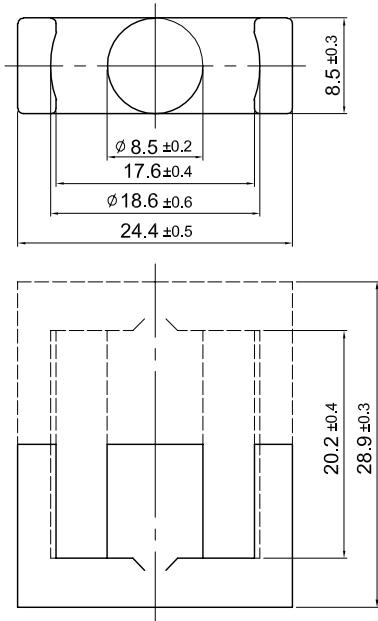
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	0.8	1.2	1.7	3.3
Flyback converter	0.3	0.4	0.6	1.1
Forward converter	0.4	0.6	0.9	1.7

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	1500 ± 25%	1470	0.00	0.11	PL-5 EER1105S
PL-7	1500 ± 25%	1470	0.00	0.09	PL-7 EER1105S
	150 ± 5%	150	0.10		PL-7 EER1105S AL150
	45 ± 3%	40	0.50		PL-7 EER1105S AL45
	25 ± 3%	20	1.00		PL-7 EER1105S AL25
PL-9	1750 ± 25%	1710	0.00	0.08 (80°C)	PL-9 EER1105S
PL-11	1600 ± 25%	1570	0.00	0.08	PL-11 EER1105S
SM-50	3580 ± 25%	3500	0.00		SM-50 EER1105S
SM-60	4290 ± 25%	4200	0.00		SM-60 EER1105S
SM-70S	4980 ± 25%	4870	0.00		SM-70S EER1105S
SM-100	5620 ± 30%	5500	0.00		SM-100 EER1105S

EER2429S ETD24

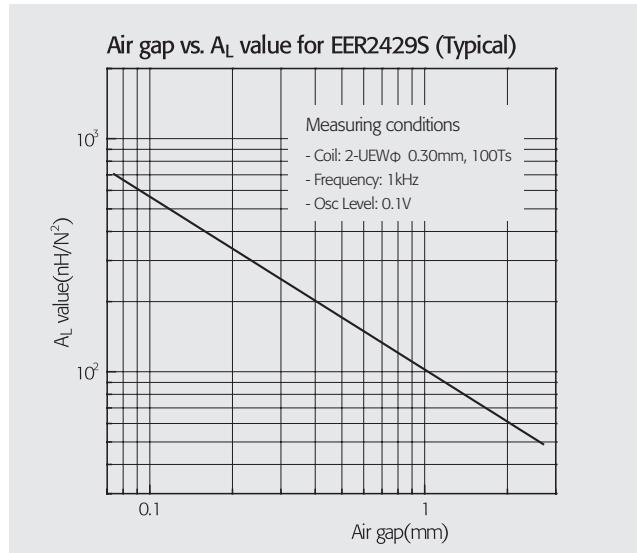


Parameter	Symbol	Value	Unit
Core constant	C1	1.055	mm ⁻¹
Effective path length	le	62.3	mm
Effective area	Ae	59.0	mm ²
Effective volume	Ve	3680	mm ³
Center leg area	Ac	56.7	mm ²
Winding area	Aw	102.0	mm ²
Weight of set	W	19	g

Calculated Output Power		(Unit : W)			
Circuit type		Switching Frequency			
		20kHz	50kHz	100kHz	250kHz
Push-pull converter		51	83	115	225
Flyback converter		17	28	38	75
Forward converter		26	42	58	112

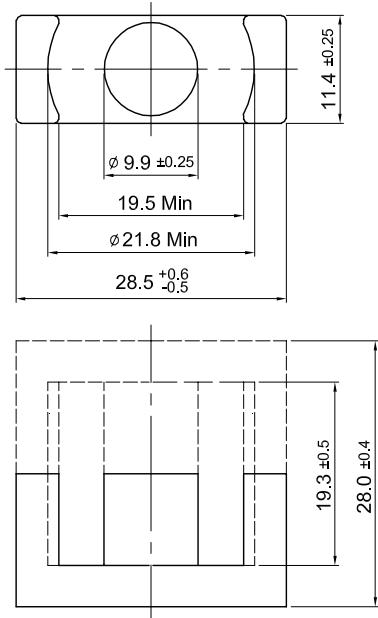
Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

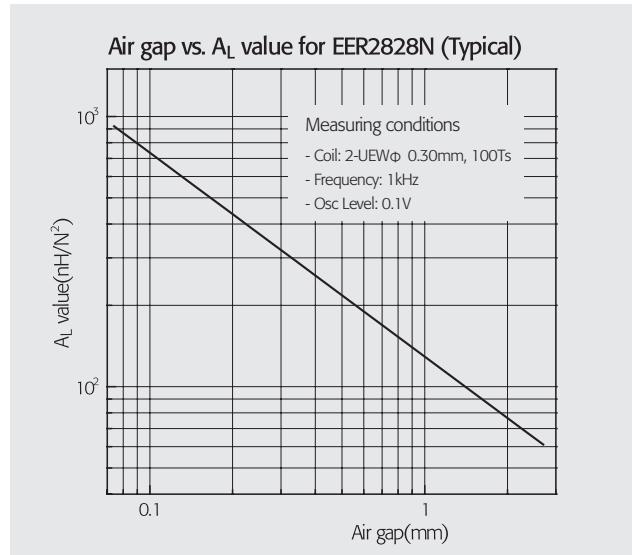


Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	2100 ± 25%	1760	0.00	2.22	PL-5 EER2429S
PL-7	2100 ± 25%	1760	0.00	1.85	PL-7 EER2429S
	565 ± 15%	470	0.10		PL-7 EER2429S AL565
	170 ± 7%	140	0.50		PL-7 EER2429S AL170
	102 ± 5%	86	1.00		PL-7 EER2429S AL102
PL-9	2500 ± 25%	2100	0.00	1.51 (80°C)	PL-9 EER2429S
PL-11	2200 ± 25%	1850	0.00	1.51	PL-11 EER2429S

EER2828N



Parameter	Symbol	Value	Unit
Core constant	C1	0.758	mm ⁻¹
Effective path length	le	63.4	mm
Effective area	Ae	83.6	mm ²
Effective volume	Ve	5300	mm ³
Center leg area	Ac	77.0	mm ²
Winding area	Aw	120.0	mm ²
Weight of set	W	28	g

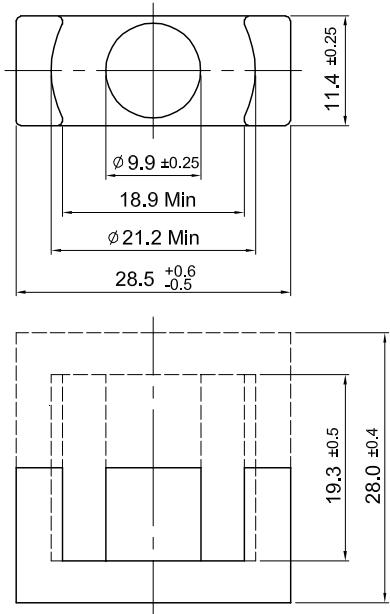


Calculated Output Power		(Unit : W)			
Circuit type		Switching Frequency			
		20kHz	50kHz	100kHz	250kHz
Push-pull converter		86	139	193	374
Flyback converter		29	46	64	125
Forward converter		43	70	96	187

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.
2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	2700 ± 25%	1630	0.00	3.25	PL-5 EER2828N
PL-7	2700 ± 25%	1630	0.00	2.70	PL-7 EER2828N
	730 ± 15%	440	0.10		PL-7 EER2828N AL730
	220 ± 10%	130	0.50		PL-7 EER2828N AL220
	130 ± 7%	80	1.00		PL-7 EER2828N AL130
PL-9	3150 ± 25%	1900	0.00	2.20 (80°C)	PL-9 EER2828N
PL-11	2800 ± 25%	1690	0.00	2.20	PL-11 EER2828N

EER2828S EER28

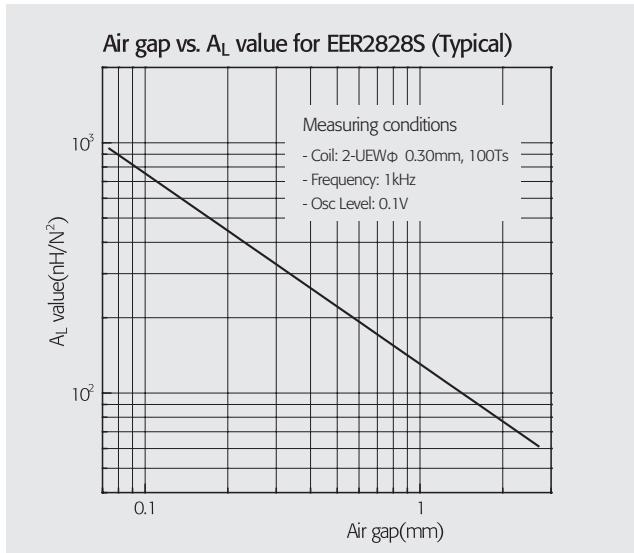


Parameter	Symbol	Value	Unit
Core constant	C1	0.732	mm ¹
Effective path length	le	63.0	mm
Effective area	Ae	86.0	mm ²
Effective volume	Ve	5410	mm ³
Center leg area	Ac	77.0	mm ²
Winding area	Aw	114.0	mm ²
Weight of set	W	29	g

Calculated Output Power		(Unit : W)			
Circuit type		Switching Frequency			
		20kHz	50kHz	100kHz	250kHz
Push-pull converter		84	136	188	366
Flyback converter		28	45	63	122
Forward converter		42	68	94	183

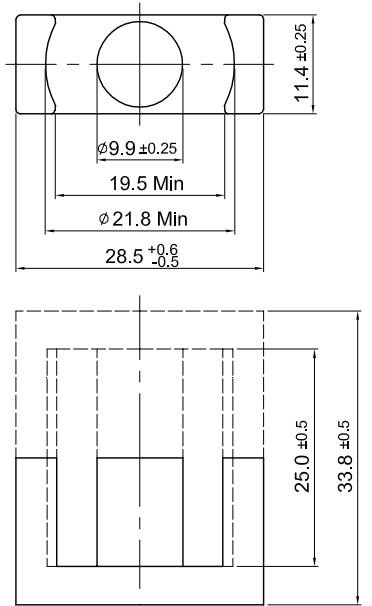
Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

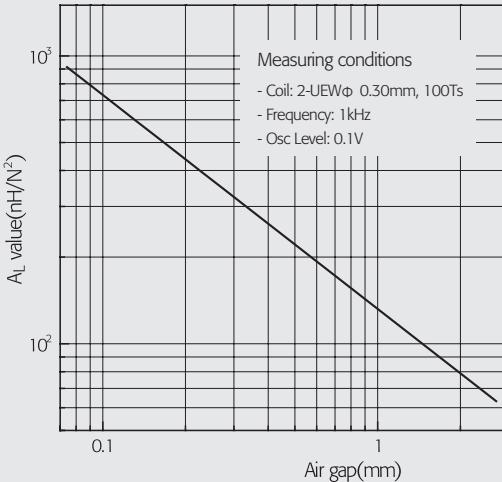


Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	2730 ± 25%	1590	0.00	3.30	PL-5 EER2828S
PL-7	2730 ± 25%	1590	0.00	2.75	PL-7 EER2828S
	750 ± 15%	440	0.10		PL-7 EER2828S AL750
	225 ± 10%	130	0.50		PL-7 EER2828S AL225
	130 ± 7%	80	1.00		PL-7 EER2828S AL130
PL-9	3200 ± 25%	1860	0.00	2.25 (80°C)	PL-9 EER2828S
PL-11	2800 ± 25%	1630	0.00	2.25	PL-11 EER2828S

EER2834N



Parameter	Symbol	Value	Unit
Core constant	C1	0.900	mm ⁻¹
Effective path length	le	74.8	mm
Effective area	Ae	83.1	mm ²
Effective volume	Ve	6220	mm ³
Center leg area	Ac	77.0	mm ²
Winding area	Aw	155.0	mm ²
Weight of set	W	32	g

Air gap vs. A_L value for EER2834N (Typical)

Calculated Output Power

(Unit : W)

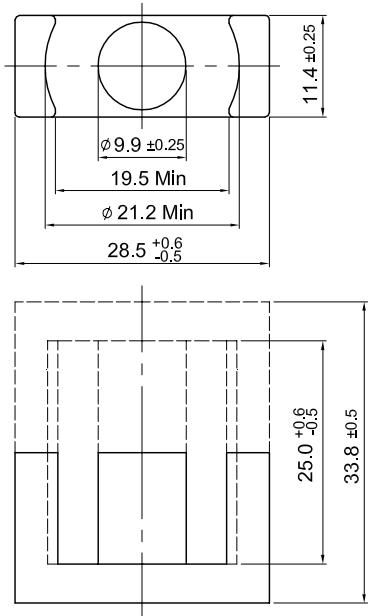
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	110	179	247	481
Flyback converter	37	60	82	160
Forward converter	55	89	124	240

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	2400 ± 25%	1720	0.00	3.80	PL-5 EER2834N
PL-7	2400 ± 25%	1720	0.00	3.15	PL-7 EER2834N
	730 ± 15%	520	0.10		PL-7 EER2834N AL730
	220 ± 10%	160	0.50		PL-7 EER2834N AL220
	130 ± 7%	90	1.00		PL-7 EER2834N AL130
PL-9	2700 ± 25%	1930	0.00	2.60 (80°C)	PL-9 EER2834N
PL-11	2500 ± 25%	1790	0.00	2.60	PL-11 EER2834N

EER2834S ER28/17/11

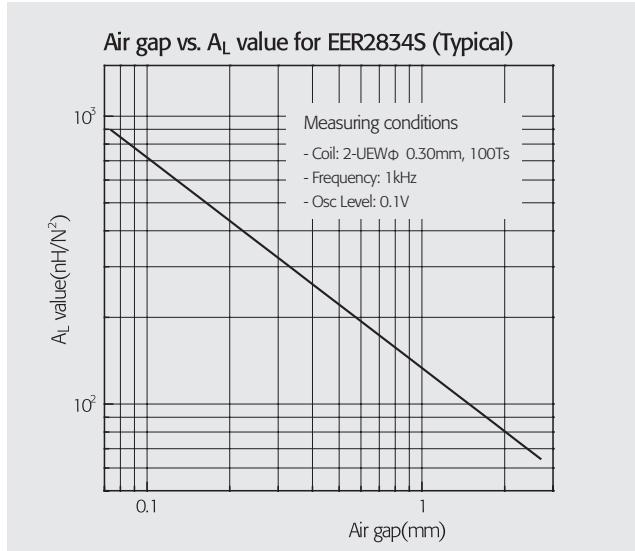


Parameter	Symbol	Value	Unit
Core constant	C1	0.870	mm ¹
Effective path length	le	74.4	mm
Effective area	Ae	85.4	mm ²
Effective volume	Ve	6360	mm ³
Center leg area	Ac	77.0	mm ²
Winding area	Aw	148.0	mm ²
Weight of set	W	33	g

Calculated Output Power		(Unit : W)			
Circuit type		Switching Frequency			
		20kHz	50kHz	100kHz	250kHz
Push-pull converter		108	175	243	472
Flyback converter		36	58	81	157
Forward converter		54	88	121	236

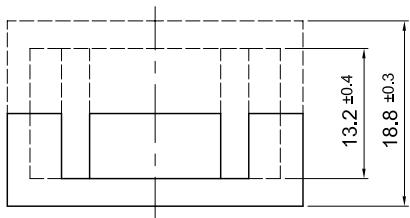
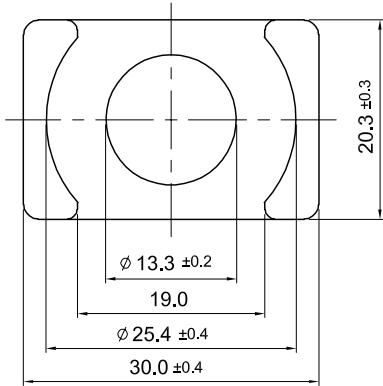
Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

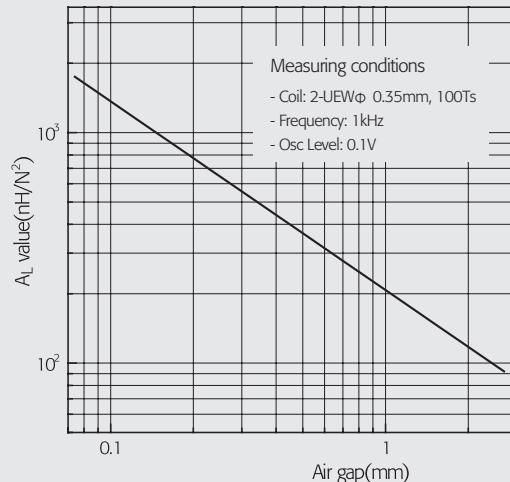


Material	A _L -value (nH/N ²)	μe	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	2400 ± 25%	1660	0.00	3.85	PL-5 EER2834S
PL-7	2400 ± 25%	1660	0.00	3.20	PL-7 EER2834S
	710 ± 15%	490	0.10		PL-7 EER2834S AL710
	225 ± 10%	160	0.50		PL-7 EER2834S AL225
	130 ± 7%	90	1.00		PL-7 EER2834S AL130
PL-9	2700 ± 25%	1870	0.00	2.65 (80°C)	PL-9 EER2834S
PL-11	2500 ± 25%	1730	0.00	2.65	PL-11 EER2834S

EER3019N



Parameter	Symbol	Value	Unit
Core constant	C1	0.344	mm ⁻¹
Effective path length	le	47.2	mm
Effective area	Ae	137.0	mm ²
Effective volume	Ve	6466	mm ³
Center leg area	Ac	139.0	mm ²
Winding area	Aw	80.0	mm ²
Weight of set	W	33	g

Air gap vs. A_L value for EER3019N (Typical)

Calculated Output Power

(Unit : W)

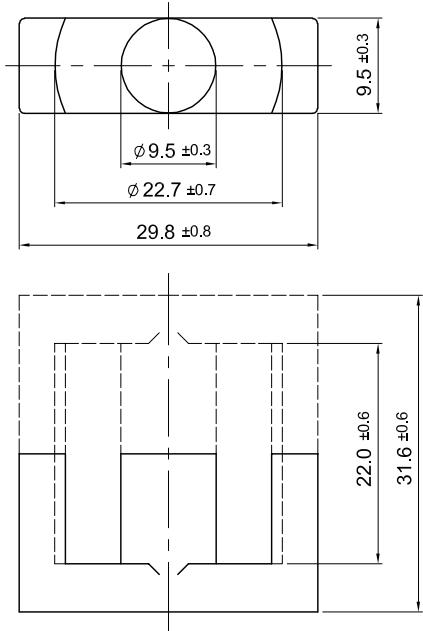
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	93	152	210	409
Flyback converter	31	51	70	136
Forward converter	47	76	105	204

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	6100 ± 25%	1670	0.00	3.90	PL-5 EER3019N
PL-7	6100 ± 25%	1670	0.00	3.25	PL-7 EER3019N
	1360 ± 15%	370	0.10		PL-7 EER3019N AL1360
	375 ± 10%	100	0.50		PL-7 EER3019N AL375
	210 ± 7%	60	1.00		PL-7 EER3019N AL210
PL-9	7100 ± 25%	1940	0.00	2.99 (80°C)	PL-9 EER3019N
PL-11	6400 ± 25%	1750	0.00	2.99	PL-11 EER3019N

EER3032S ETD29

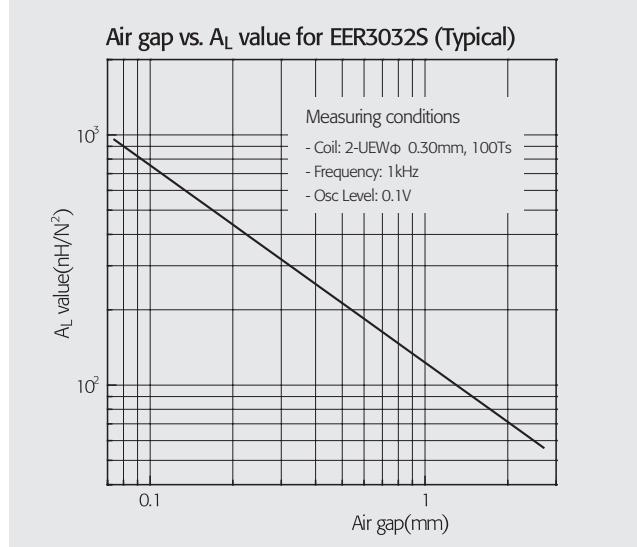


Parameter	Symbol	Value	Unit
Core constant	C1	0.927	mm ¹
Effective path length	le	70.7	mm
Effective area	Ae	76.2	mm ²
Effective volume	Ve	5390	mm ³
Center leg area	Ac	70.9	mm ²
Winding area	Aw	145.0	mm ²
Weight of set	W	28	g

Calculated Output Power		(Unit : W)			
Circuit type		Switching Frequency			
		20kHz	50kHz	100kHz	250kHz
Push-pull converter		94	153	212	412
Flyback converter		31	51	71	137
Forward converter		47	77	106	206

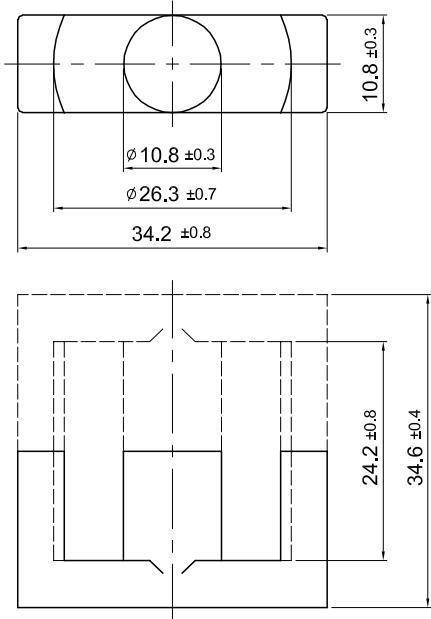
Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

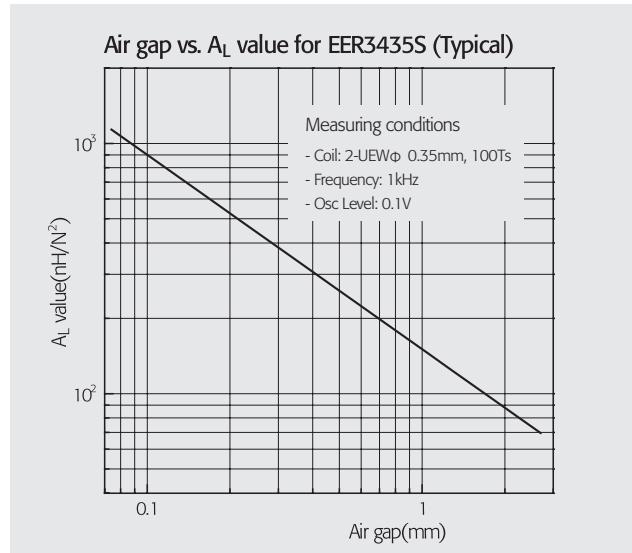


Material	A _L -value (nH/N ²)	μe	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	2300 ± 25%	1700	0.00	3.25	PL-5 EER3032S
PL-7	2300 ± 25%	1700	0.00	2.70	PL-7 EER3032S
	760 ± 15%	560	0.10		PL-7 EER3032S AL760
	210 ± 10%	150	0.50		PL-7 EER3032S AL210
	120 ± 7%	90	1.00		PL-7 EER3032S AL120
PL-9	2750 ± 25%	2030	0.00	2.21 (80°C)	PL-9 EER3032S
PL-11	2400 ± 25%	1770	0.00	2.21	PL-11 EER3032S

EER3435S ETD34



Parameter	Symbol	Value	Unit
Core constant	C1	0.815	mm ⁻¹
Effective path length	le	79.0	mm
Effective area	Ae	97.0	mm ²
Effective volume	Ve	7660	mm ³
Center leg area	Ac	91.6	mm ²
Winding area	Aw	187.0	mm ²
Weight of set	W	39	g



Calculated Output Power

(Unit : W)

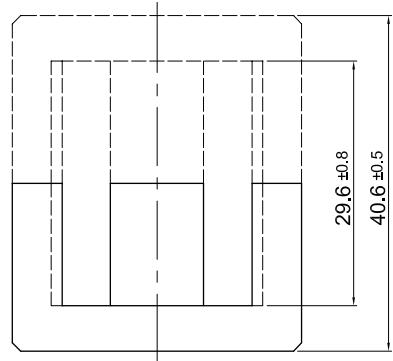
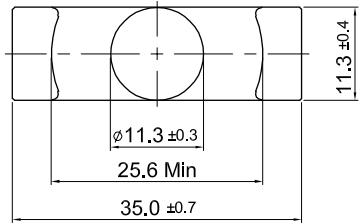
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	155	251	348	677
Flyback converter	52	84	116	226
Forward converter	77	126	174	338

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	2500 ± 25%	1620	0.00	4.60	PL-5 EER3435S
PL-7	2500 ± 25%	1620	0.00	3.85	PL-7 EER3435S
	905 ± 15%	590	0.10		PL-7 EER3435S AL905
	260 ± 10%	170	0.50		PL-7 EER3435S AL260
	150 ± 7%	100	1.00		PL-7 EER3435S AL150
PL-9	3000 ± 25%	1950	0.00	3.15 (80°C)	PL-9 EER3435S
PL-11	2600 ± 25%	1690	0.00	3.15	PL-11 EER3435S

EER3540S ER35/20/11



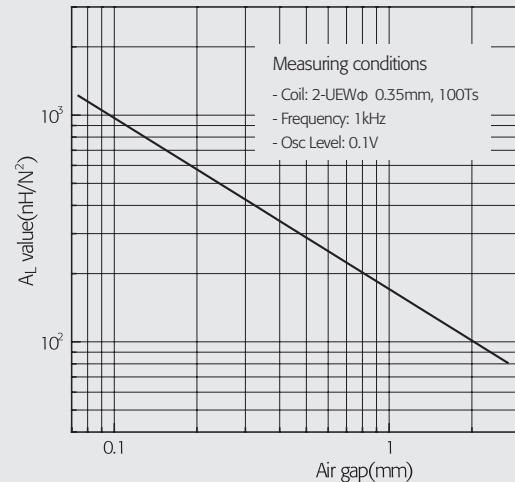
Parameter	Symbol	Value	Unit
Core constant	C1	0.813	mm ¹
Effective path length	le	88.6	mm
Effective area	Ae	109.0	mm ²
Effective volume	Ve	9657	mm ³
Center leg area	Ac	100.3	mm ²
Winding area	Aw	219.0	mm ²
Weight of set	W	50	g

Calculated Output Power		(Unit : W)			
Circuit type		Switching Frequency			
		20kHz	50kHz	100kHz	250kHz
Push-pull converter		204	331	458	891
Flyback converter		68	110	153	297
Forward converter		102	165	229	445

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

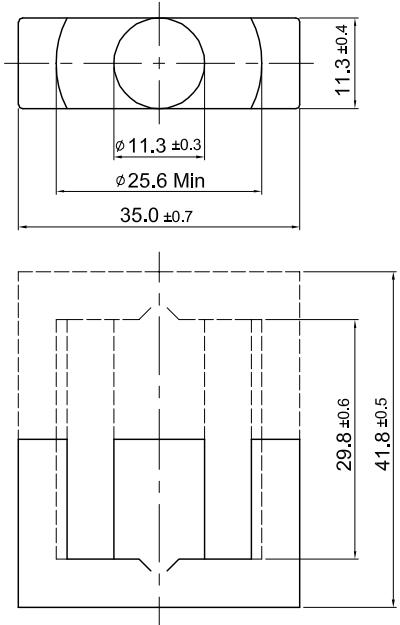
2) Temperature rise should be considered for design before choosing the final core size.

Air gap vs. A_L value for EER3540S (Typical)

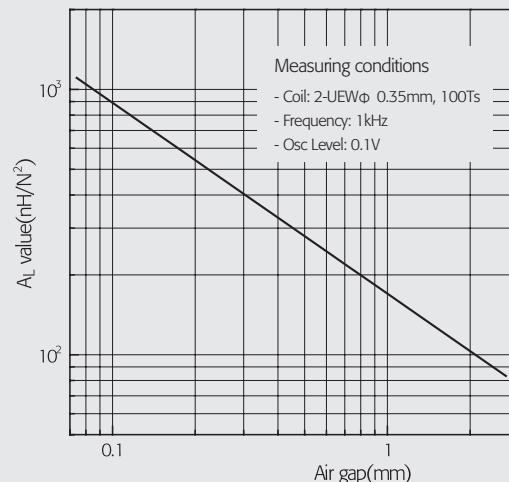


Material	A _L -value (nH/N ²)	μe	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	2600 ± 25%	1680	0.00	5.88	PL-5 EER3540S
PL-7	2600 ± 25%	1680	0.00	4.90	PL-7 EER3540S
	960 ± 15%	620	0.10		PL-7 EER3540S AL960
	290 ± 10%	190	0.50		PL-7 EER3540S AL290
	170 ± 7%	110	1.00		PL-7 EER3540S AL170
PL-9	3000 ± 25%	1940	0.00	4.51 (80°C)	PL-9 EER3540S
PL-11	2700 ± 25%	1750	0.00	4.51	PL-11 EER3540S

EER3541S



Parameter	Symbol	Value	Unit
Core constant	C1	0.831	mm ⁻¹
Effective path length	le	91.0	mm
Effective area	Ae	109.0	mm ²
Effective volume	Ve	9960	mm ³
Center leg area	Ac	100.3	mm ²
Winding area	Aw	223.0	mm ²
Weight of set	W	52	g

Air gap vs. A_L value for EER3541S (Typical)

Calculated Output Power

(Unit : W)

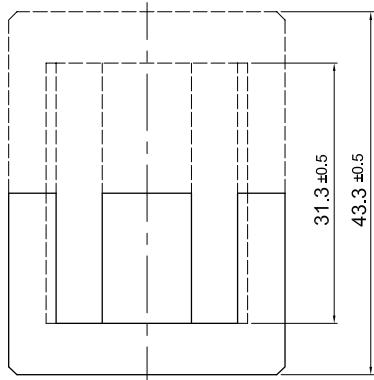
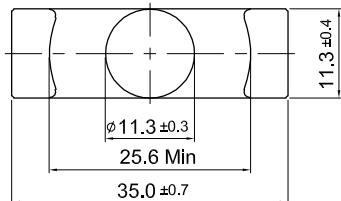
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	207	337	466	907
Flyback converter	69	112	155	302
Forward converter	104	168	233	453

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	2600 ± 25%	1720	0.00	6.00	PL-5 EER3541S
PL-7	2600 ± 25%	1720	0.00	5.00	PL-7 EER3541S
	870 ± 15%	580	0.10		PL-7 EER3541S AL870
	290 ± 10%	190	0.50		PL-7 EER3541S AL290
	170 ± 7%	110	1.00		PL-7 EER3541S AL170
PL-9	3050 ± 25%	2020	0.00	4.10 (80°C)	PL-9 EER3541S
PL-11	2700 ± 25%	1780	0.00	4.10	PL-11 EER3541S

EER3543S

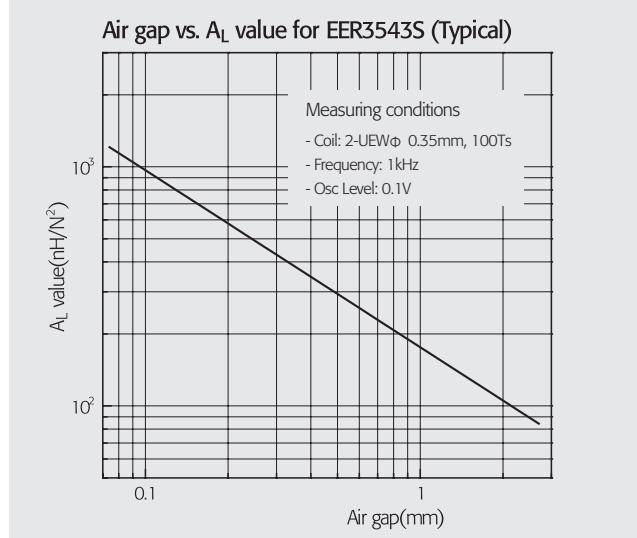


Parameter	Symbol	Value	Unit
Core constant	C1	0.852	mm ¹
Effective path length	le	94.6	mm
Effective area	Ae	111.0	mm ²
Effective volume	Ve	10501	mm ³
Center leg area	Ac	100.3	mm ²
Winding area	Aw	235.0	mm ²
Weight of set	W	53	g

Calculated Output Power		(Unit : W)			
Circuit type		Switching Frequency			
		20kHz	50kHz	100kHz	250kHz
Push-pull converter		222	362	501	973
Flyback converter		74	121	167	324
Forward converter		111	181	250	487

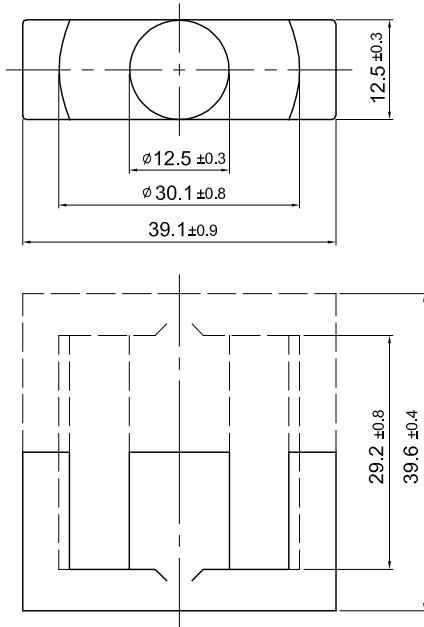
Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

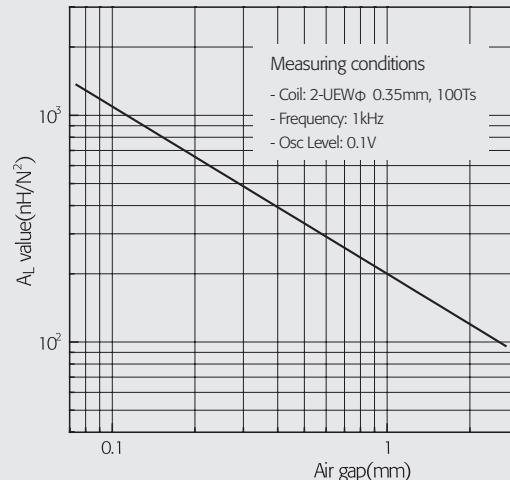


Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	2500 ± 25%	1700	0.00	6.40	PL-5 EER3543S
PL-7	2500 ± 25%	1700	0.00	5.44	PL-7 EER3543S
	960 ± 15%	650	0.10		PL-7 EER3543S AL960
	295 ± 10%	200	0.50		PL-7 EER3543S AL295
	175 ± 7%	120	1.00		PL-7 EER3543S AL175
PL-9	2900 ± 25%	1970	0.00	4.91 (80°C)	PL-9 EER3543S
PL-11	2600 ± 25%	1760	0.00	4.91	PL-11 EER3543S

EER3940S ETD39



Parameter	Symbol	Value	Unit
Core constant	C1	0.741	mm ⁻¹
Effective path length	le	92.6	mm
Effective area	Ae	124.0	mm ²
Effective volume	Ve	11560	mm ³
Center leg area	Ac	123.0	mm ²
Winding area	Aw	256.0	mm ²
Weight of set	W	58	g

Air gap vs. A_L value for EER3940S (Typical)

Calculated Output Power

(Unit : W)

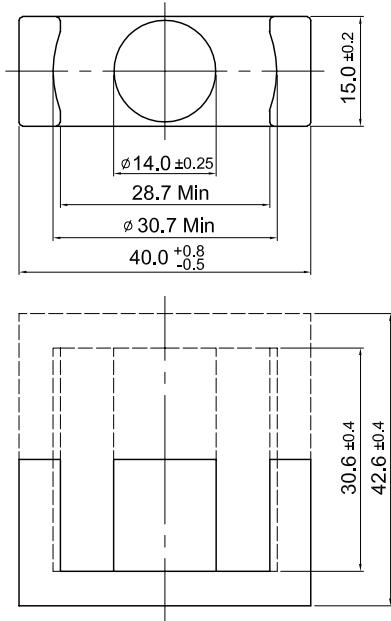
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	271	440	609	1184
Flyback converter	90	147	203	395
Forward converter	135	220	305	592

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A _L -value (nH/N ²)	μe	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	2900 ± 25%	1710	0.00	7.00	PL-5 EER3940S
PL-7	2900 ± 25%	1710	0.00	5.80	PL-7 EER3940S
	1080 ± 15%	640	0.10		PL-7 EER3940S AL1080
	340 ± 10%	200	0.50		PL-7 EER3940S AL340
	200 ± 7%	120	1.00		PL-7 EER3940S AL200
PL-9	3400 ± 25%	2000	0.00	4.75 (80°C)	PL-9 EER3940S
PL-11	3000 ± 25%	1770	0.00	4.75	PL-11 EER3940S

EER4042S

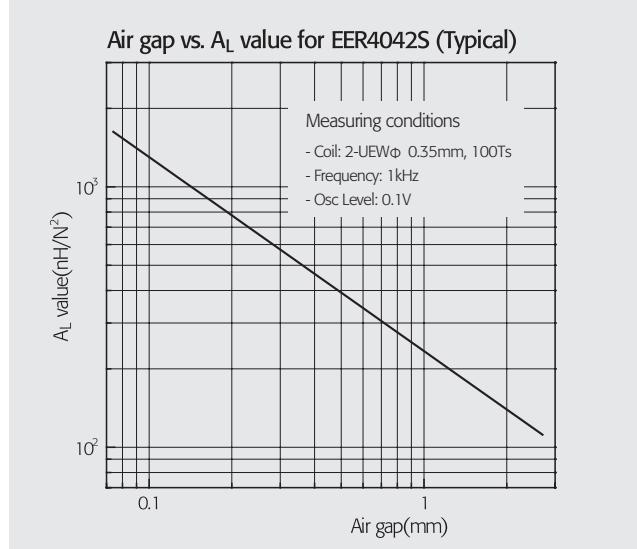


Parameter	Symbol	Value	Unit
Core constant	C1	0.609	mm ¹
Effective path length	le	96.3	mm
Effective area	Ae	158.0	mm ²
Effective volume	Ve	15230	mm ³
Center leg area	Ac	154.0	mm ²
Winding area	Aw	265.0	mm ²
Weight of set	W	79	g

Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	357	580	803	1562
Flyback converter	119	193	268	521
Forward converter	179	290	402	781

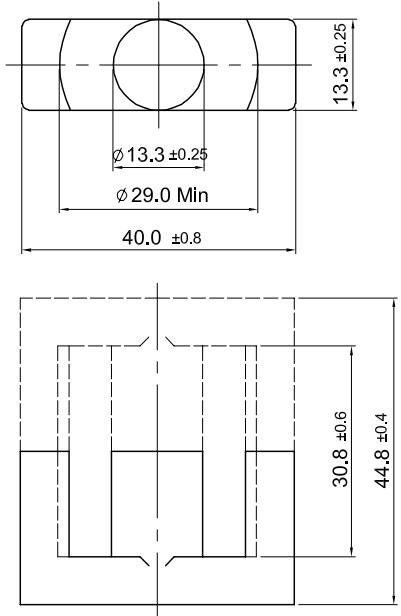
Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

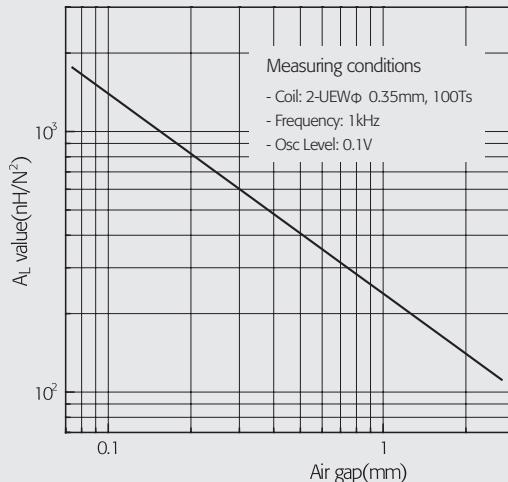


Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	3600 ± 25%	1740	0.00	9.25	PL-5 EER4042S
PL-7	3600 ± 25%	1740	0.00	7.70	PL-7 EER4042S
	1275 ± 15%	620	0.10		PL-7 EER4042S AL1275
	410 ± 10%	200	0.50		PL-7 EER4042S AL410
	235 ± 7%	110	1.00		PL-7 EER4042S AL235
PL-9	4200 ± 25%	2030	0.00	6.30 (80°C)	PL-9 EER4042S
PL-11	3800 ± 25%	1840	0.00	6.30	PL-11 EER4042S

EER4045S EER40



Parameter	Symbol	Value	Unit
Core constant	C1	0.641	mm ⁻¹
Effective path length	le	97.4	mm
Effective area	Ae	151.0	mm ²
Effective volume	Ve	14790	mm ³
Center leg area	Ac	139.0	mm ²
Winding area	Aw	254.0	mm ²
Weight of set	W	78	g

Air gap vs. A_L value for EER4045S (Typical)

Calculated Output Power

(Unit : W)

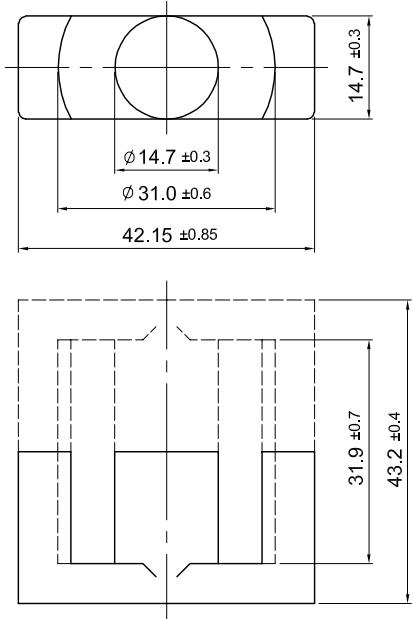
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	327	532	736	1431
Flyback converter	109	177	245	477
Forward converter	164	266	368	716

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

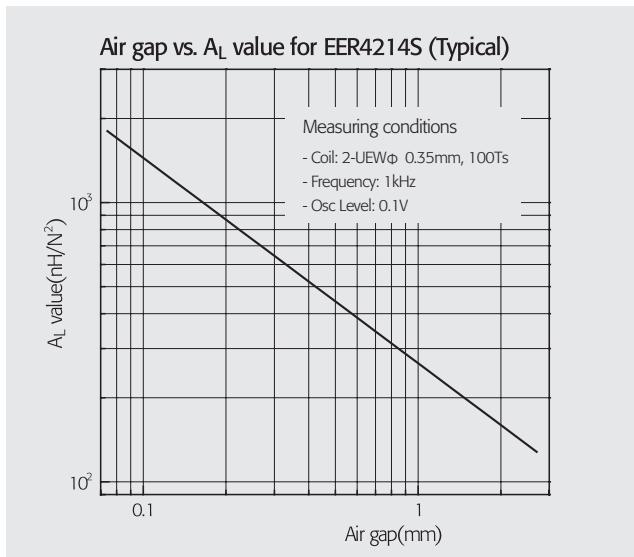
Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	3300 ± 25%	1680	0.00	8.90	PL-5 EER4045S
PL-7	3300 ± 25%	1680	0.00	7.40	PL-7 EER4045S
	1380 ± 15%	700	0.10		PL-7 EER4045S AL1380
	410 ± 10%	210	0.50		PL-7 EER4045S AL410
	235 ± 7%	120	1.00		PL-7 EER4045S AL235
PL-9	3900 ± 25%	1990	0.00	6.10 (80°C)	PL-9 EER4045S
PL-11	3400 ± 25%	1730	0.00	6.10	PL-11 EER4045S

EER4214S ER42/22/15



Parameter	Symbol	Value	Unit
Core constant	C1	0.572	mm ¹
Effective path length	le	98.8	mm
Effective area	Ae	172.0	mm ²
Effective volume	Ve	17090	mm ³
Center leg area	Ac	170.0	mm ²
Winding area	Aw	259.0	mm ²
Weight of set	W	87	g

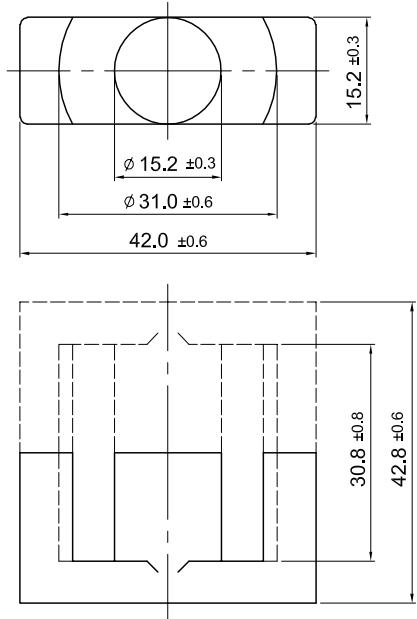
Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	380	617	855	1662
Flyback converter	127	206	285	554
Forward converter	190	309	427	831



Note : 1) Core loss is assumed to be approx. 0.1W/cm³.
2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	3800 ± 25%	1730	0.00	13.40	PL-5 EER4214S
PL-7	3800 ± 25%	1730	0.00	8.60	PL-7 EER4214S
	1425 ± 15%	650	0.10		PL-7 EER4214S AL1425
	460 ± 10%	210	0.50		PL-7 EER4214S AL460
	265 ± 7%	120	1.00		PL-7 EER4214S AL265
PL-9	4500 ± 25%	2050	0.00	7.10 (80°C)	PL-9 EER4214S
PL-11	4000 ± 25%	1820	0.00	7.10	PL-11 EER4214S

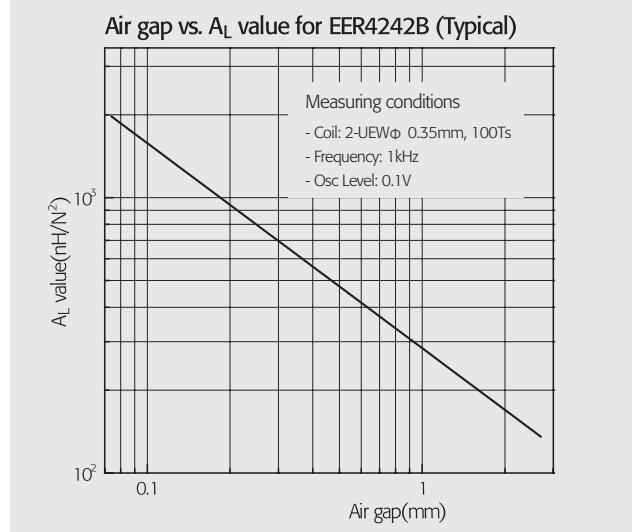
EER4242B



Parameter	Symbol	Value	Unit
Core constant	C1	0.528	mm ⁻¹
Effective path length	le	96.9	mm
Effective area	Ae	183.0	mm ²
Effective volume	Ve	17790	mm ³
Center leg area	Ac	181.0	mm ²
Winding area	Aw	243.0	mm ²
Weight of set	W	91	g

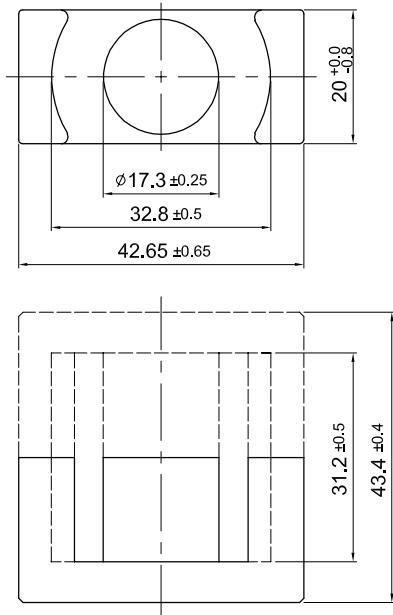
Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	379	616	853	1659
Flyback converter	126	205	284	553
Forward converter	190	308	427	830

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.
2) Temperature rise should be considered for design before choosing the final core size.



Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	4000 ± 25%	1680	0.00	10.70	PL-5 EER4242B
PL-7	4000 ± 25%	1680	0.00	8.90	PL-7 EER4242B
	1570 ± 15%	660	0.10		PL-7 EER4242B AL1570
	480 ± 10%	200	0.50		PL-7 EER4242B AL480
	280 ± 7%	120	1.00		PL-7 EER4242B AL280
PL-9	4700 ± 25%	1970	0.00	7.30 (80°C)	PL-9 EER4242B
PL-11	4200 ± 25%	1760	0.00	7.30	PL-11 EER4242B

EER4242KF

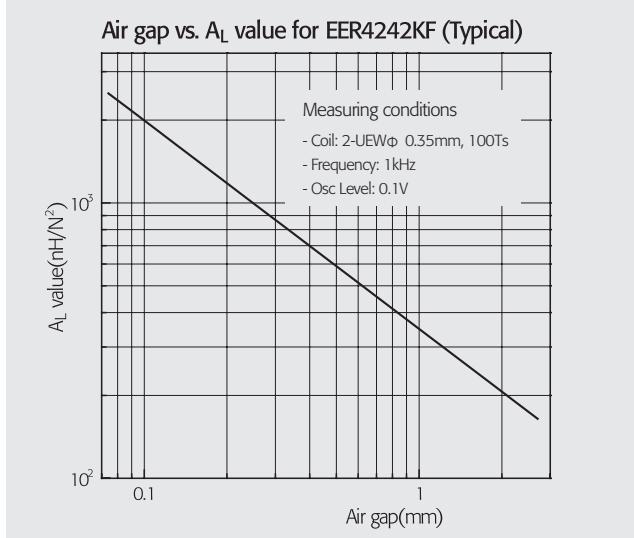


Parameter	Symbol	Value	Unit
Core constant	C1	0.415	mm ¹
Effective path length	le	98.0	mm
Effective area	Ae	236.0	mm ²
Effective volume	Ve	23128	mm ³
Center leg area	Ac	234.9	mm ²
Winding area	Aw	242.0	mm ²
Weight of set	W	119	g

Calculated Output Power		(Unit : W)			
Circuit type		Switching Frequency			
		20kHz	50kHz	100kHz	250kHz
Push-pull converter		487	792	1096	2131
Flyback converter		162	264	365	710
Forward converter		244	396	548	1066

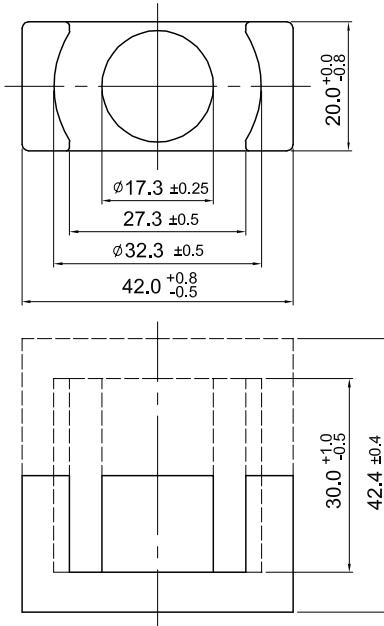
Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

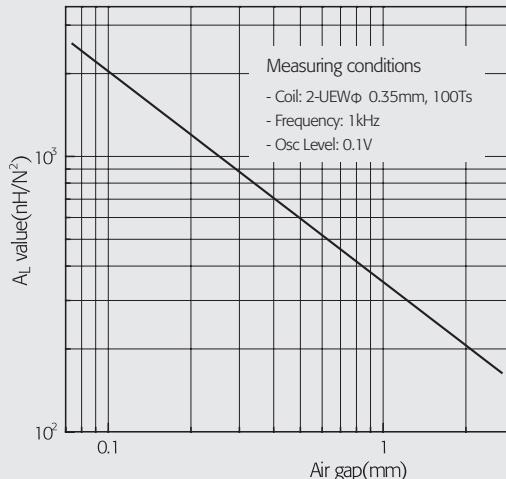


Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	5000 ± 25%	1650	0.00	13.92	PL-5 EER4242KF
PL-7	5000 ± 25%	1650	0.00	11.60	PL-7 EER4242KF
	1950 ± 15%	640	0.10		PL-7 EER4242KF AL1950
	610 ± 10%	200	0.50		PL-7 EER4242KF AL610
	350 ± 7%	120	1.00		PL-7 EER4242KF AL350
PL-9	5800 ± 25%	1920	0.00	10.67 (80°C)	PL-9 EER4242KF
PL-11	5200 ± 25%	1720	0.00	10.67	PL-11 EER4242KF

EER4242S



Parameter	Symbol	Value	Unit
Core constant	C1	0.406	mm ⁻¹
Effective path length	le	95.1	mm
Effective area	Ae	234.0	mm ²
Effective volume	Ve	22280	mm ³
Center leg area	Ac	235.0	mm ²
Winding area	Aw	228.0	mm ²
Weight of set	W	115	g

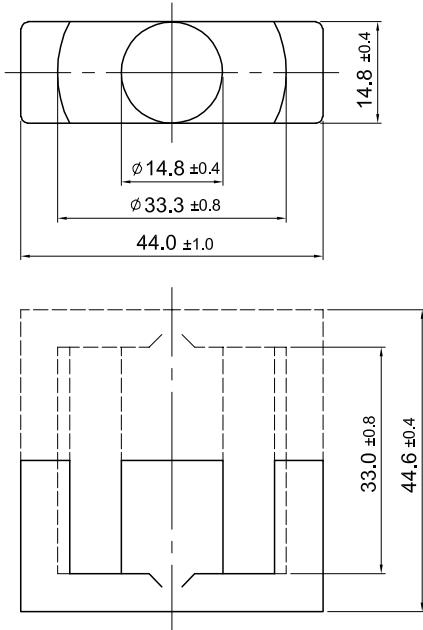
Air gap vs. A_L value for EER4242S (Typical)

Calculated Output Power		(Unit : W)			
Circuit type	Switching Frequency				
	20kHz	50kHz	100kHz	250kHz	
Push-pull converter	455	739	1024	1991	
Flyback converter	152	246	341	664	
Forward converter	228	370	512	995	

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.
2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	5000 ± 25%	1610	0.00	13.40	PL-5 EER4242S
PL-7	5000 ± 25%	1610	0.00	11.10	PL-7 EER4242S
	2030 ± 15%	660	0.10		PL-7 EER4242S AL2030
	600 ± 10%	190	0.50		PL-7 EER4242S AL600
	350 ± 7%	110	1.00		PL-7 EER4242S AL350
PL-9	5800 ± 25%	1870	0.00	9.20 (80°C)	PL-9 EER4242S
PL-11	5200 ± 25%	1680	0.00	9.20	PL-11 EER4242S

EER4445S ETD44



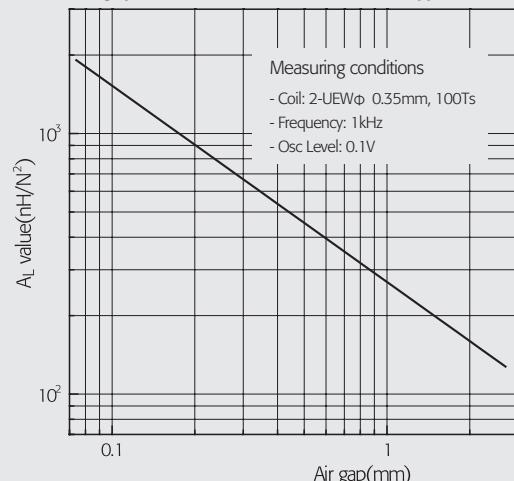
Parameter	Symbol	Value	Unit
Core constant	C1	0.598	mm ¹
Effective path length	le	104.0	mm
Effective area	Ae	173.0	mm ²
Effective volume	Ve	17910	mm ³
Center leg area	Ac	172.0	mm ²
Winding area	Aw	305.0	mm ²
Weight of set	W	91	g

Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	450	731	1013	1969
Flyback converter	150	244	338	656
Forward converter	225	366	506	984

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

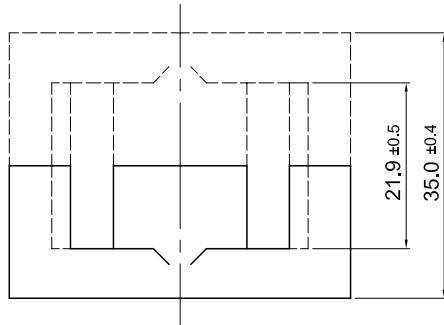
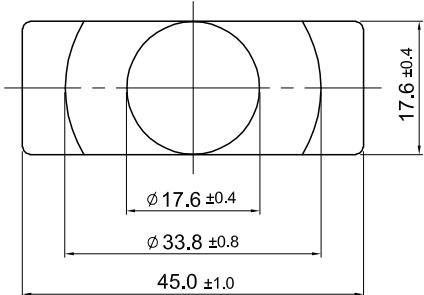
2) Temperature rise should be considered for design before choosing the final core size.

Air gap vs. A_L value for EER4445S (Typical)

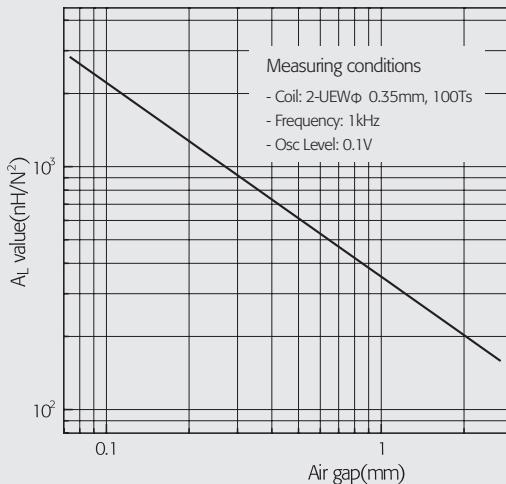


Material	A _L -value (nH/N ²)	μe	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	3400 ± 25%	1620	0.00	10.70	PL-5 EER4445S
PL-7	3400 ± 25%	1620	0.00	9.50	PL-7 EER4445S
	1505 ± 15%	720	0.10		PL-7 EER4445S AL1505
	450 ± 10%	210	0.50		PL-7 EER4445S AL450
	270 ± 7%	130	1.00		PL-7 EER4445S AL270
PL-9	4000 ± 25%	1900	0.00	7.35 (80°C)	PL-9 EER4445S
PL-11	3500 ± 25%	1670	0.00	7.35	PL-11 EER4445S

EER4535S ER46/17/18



Parameter	Symbol	Value	Unit
Core constant	C1	0.349	mm ⁻¹
Effective path length	le	81.2	mm
Effective area	Ae	232.0	mm ²
Effective volume	Ve	18880	mm ³
Center leg area	Ac	243.0	mm ²
Winding area	Aw	177.0	mm ²
Weight of set	W	99	g

Air gap vs. A_L value for EER4535S (Typical)

Calculated Output Power

(Unit : W)

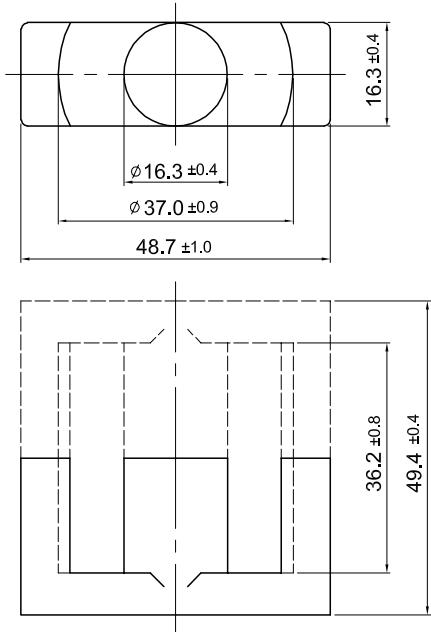
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	350	569	788	1532
Flyback converter	117	190	263	511
Forward converter	175	285	394	766

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	5800 ± 25%	1610	0.00	11.40	PL-5 EER4535S
PL-7	5800 ± 25%	1610	0.00	9.50	PL-7 EER4535S
	2130 ± 15%	590	0.10		PL-7 EER4535S AL2130
	635 ± 10%	180	0.50		PL-7 EER4535S AL635
	350 ± 7%	100	1.00		PL-7 EER4535S AL350
PL-9	6750 ± 25%	1870	0.00	7.75 (80°C)	PL-9 EER4535S
PL-11	6000 ± 25%	1670	0.00	7.75	PL-11 EER4535S

EER4950S ETD49



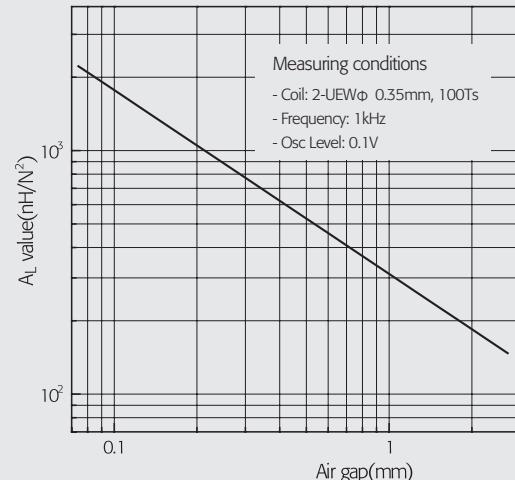
Parameter	Symbol	Value	Unit
Core constant	C1	0.542	mm ¹
Effective path length	le	114.0	mm
Effective area	Ae	211.0	mm ²
Effective volume	Ve	24140	mm ³
Center leg area	Ac	209.0	mm ²
Winding area	Aw	374.0	mm ²
Weight of set	W	123	g

Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	673	1094	1514	2945
Flyback converter	224	365	505	982
Forward converter	337	547	757	1472

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

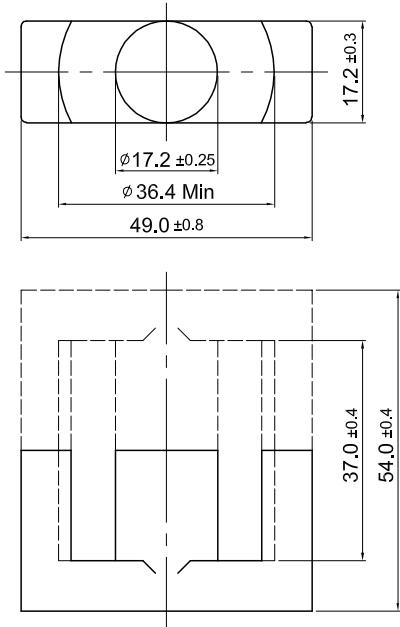
2) Temperature rise should be considered for design before choosing the final core size.

Air gap vs. A_L value for EER4950S (Typical)

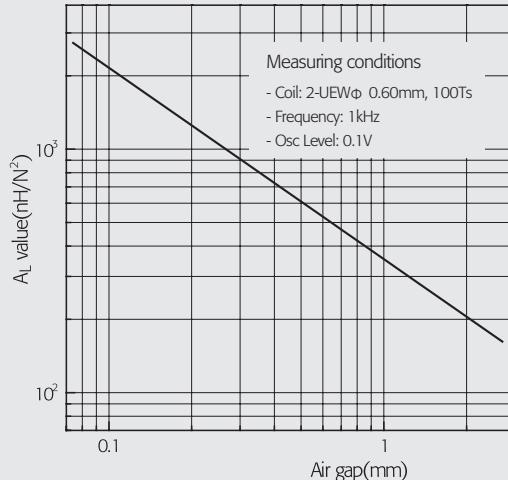


Material	A _L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	4000 ± 25%	1720	0.00	14.50	PL-5 EER4950S
PL-7	4000 ± 25%	1720	0.00	12.10	PL-7 EER4950S
	1730 ± 15%	750	0.10		PL-7 EER4950S AL1730
	540 ± 10%	230	0.50		PL-7 EER4950S AL540
	310 ± 7%	130	1.00		PL-7 EER4950S AL310
PL-9	4750 ± 25%	2050	0.00	9.90 (80°C)	PL-9 EER4950S
PL-11	4200 ± 25%	1810	0.00	9.90	PL-11 EER4950S

EER4954S ER49/27/17



Parameter	Symbol	Value	Unit
Core constant	C1	0.487	mm ⁻¹
Effective path length	le	118.0	mm
Effective area	Ae	241.0	mm ²
Effective volume	Ve	28460	mm ³
Center leg area	Ac	232.0	mm ²
Winding area	Aw	370.0	mm ²
Weight of set	W	150	g

Air gap vs. A_L value for EER4954S (Typical)

Calculated Output Power

(Unit : W)

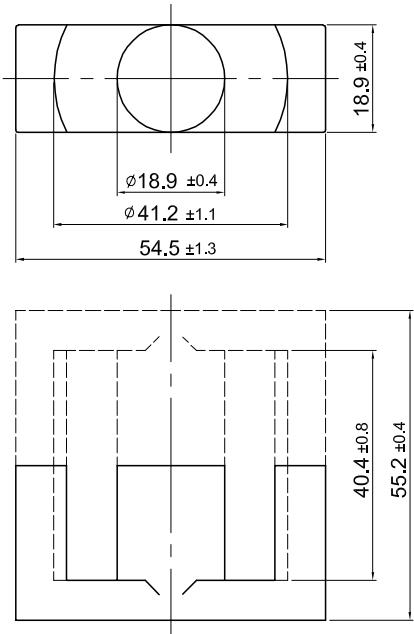
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	761	1236	1711	3327
Flyback converter	254	412	570	1109
Forward converter	380	618	856	1664

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A _L -value (nH/N ²)	μe	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	4500 ± 25%	1740	0.00	17.10	PL-5 EER4954S
PL-7	4500 ± 25%	1740	0.00	14.20	PL-7 EER4954S
	2110 ± 15%	820	0.10		PL-7 EER4954S AL2110
	620 ± 10%	240	0.50		PL-7 EER4954S AL620
	350 ± 7%	140	1.00		PL-7 EER4954S AL350
PL-9	5300 ± 25%	2050	0.00	11.70 (80°C)	PL-9 EER4954S
PL-11	4700 ± 25%	1820	0.00	11.70	PL-11 EER4954S

EER5455S ETD54



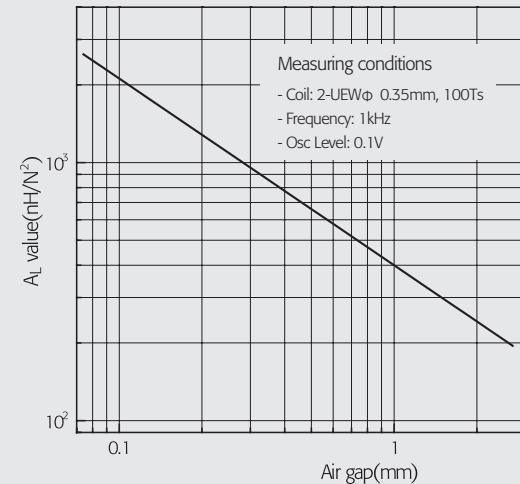
Parameter	Symbol	Value	Unit
Core constant	C1	0.454	mm ¹
Effective path length	le	127.0	mm
Effective area	Ae	279.0	mm ²
Effective volume	Ve	35620	mm ³
Center leg area	Ac	281.0	mm ²
Winding area	Aw	450.0	mm ²
Weight of set	W	181	g

Calculated Output Power		(Unit : W)			
Circuit type		Switching Frequency			
		20kHz	50kHz	100kHz	250kHz
Push-pull converter		1071	1740	2409	4685
Flyback converter		357	580	803	1562
Forward converter		535	870	1205	2342

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

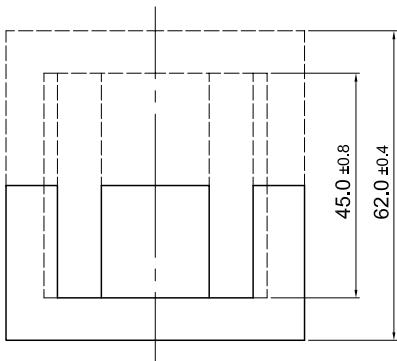
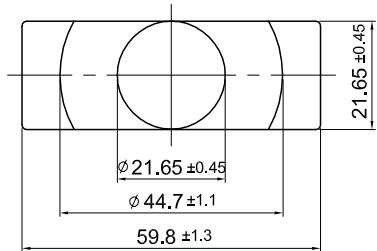
2) Temperature rise should be considered for design before choosing the final core size.

Air gap vs. A_L value for EER5455S (Typical)

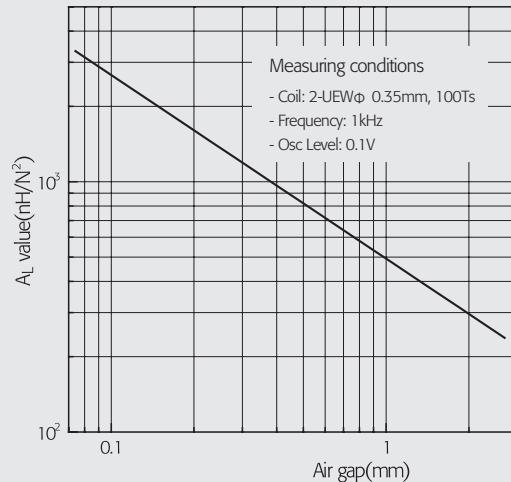


Material	A _L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	4800 ± 25%	1730	0.00	22.00	PL-5 EER5455S
PL-7	4800 ± 25%	1730	0.00	17.72	PL-7 EER5455S
	2060 ± 15%	740	0.10		PL-7 EER5455S AL2060
	690 ± 10%	250	0.50		PL-7 EER5455S AL690
	400 ± 7%	140	1.00		PL-7 EER5455S AL400
PL-9	5700 ± 25%	2060	0.00	16.00 (80°C)	PL-9 EER5455S
PL-11	5000 ± 25%	1810	0.00	16.00	PL-11 EER5455S

EER6062S ETD59



Parameter	Symbol	Value	Unit
Core constant	C1	0.383	mm ⁻¹
Effective path length	le	141.0	mm
Effective area	Ae	367.0	mm ²
Effective volume	Ve	51630	mm ³
Center leg area	Ac	368.0	mm ²
Winding area	Aw	518.0	mm ²
Weight of set	W	264	g

Air gap vs. A_L value for EER6062S (Typical)

Calculated Output Power

(Unit : W)

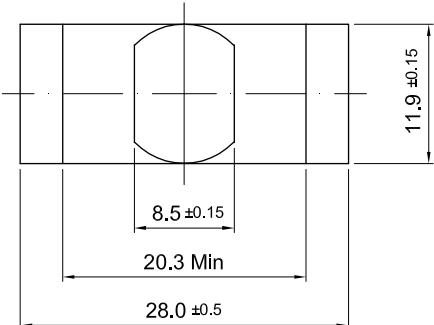
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	1621	2635	3648	7094
Flyback converter	540	878	1216	2365
Forward converter	811	1317	1824	3547

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

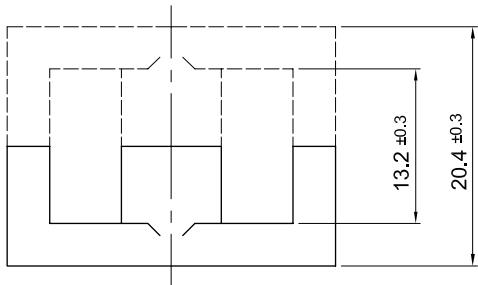
2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	5400 ± 25%	1740	0.00	32.00	PL-5 EER6062S
PL-7	5400 ± 25%	1740	0.00	26.50	PL-7 EER6062S
	2610 ± 15%	800	0.10		PL-7 EER6062S AL2610
	860 ± 10%	260	0.50		PL-7 EER6062S AL860
	495 ± 7%	150	1.00		PL-7 EER6062S AL495
PL-9	6500 ± 25%	2040	0.00	23.50 (80°C)	PL-9 EER6062S
PL-11	5600 ± 25%	1800	0.00	23.50	PL-11 EER6062S
SM-50	11490 ± 25%	3500	0.00		SM-50 EER6062S
SM-60	13780 ± 25%	4200	0.00		SM-60 EER6062S
SM-70S	16000 ± 25%	4880	0.00		SM-70S EER6062S
SM-100	18050 ± 30%	5500	0.00		SM-100 EER6062S

EED2820S



Parameter	Symbol	Value	Unit
Core constant	C1	0.586	mm ¹
Effective path length	le	50.5	mm
Effective area	Ae	86.1	mm ²
Effective volume	Ve	4350	mm ³
Center leg area	Ac	101.2	mm ²
Winding area	Aw	81.1	mm ²
Weight of set	W	23	g

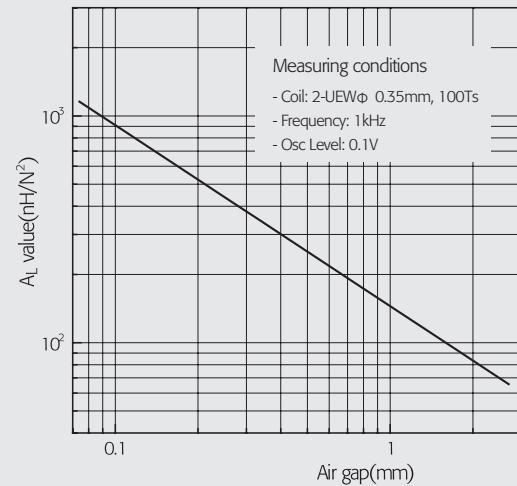


Calculated Output Power		(Unit : W)			
Circuit type		Switching Frequency			
		20kHz	50kHz	100kHz	250kHz
Push-pull converter		60	97	134	261
Flyback converter		20	32	45	87
Forward converter		30	48	67	130

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

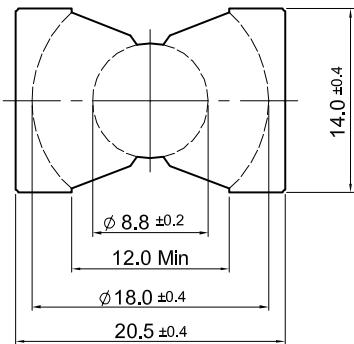
2) Temperature rise should be considered for design before choosing the final core size.

Air gap vs. A_L value for EED2820S (Typical)

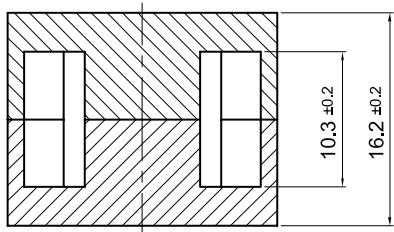


Material	A _L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-5	3000 ± 25%	1400	0.00	2.65	PL-5 EED2820S
PL-7	3000 ± 25%	1400	0.00	2.20	PL-7 EED2820S
	900 ± 15%	420	0.10		PL-7 EED2820S AL900
	255 ± 7%	120	0.50		PL-7 EED2820S AL255
	145 ± 5%	70	1.00		PL-7 EED2820S AL145
PL-9	3400 ± 25%	1590	0.00	1.80 (80°C)	PL-9 EED2820S
PL-11	3100 ± 25%	1450	0.00	1.80	PL-11 EED2820S
SM-50	7510 ± 25%	3500	0.00		SM-50 EED2820S
SM-60	9010 ± 25%	4200	0.00		SM-60 EED2820S
SM-70S	10460 ± 25%	4880	0.00		SM-70S EED2820S
SM-100	11800 ± 30%	5500	0.00		SM-100 EED2820S

PQ2016S



Parameter	Symbol	Value	Unit
Core constant	C1	0.605	mm ⁻¹
Effective path length	le	37.4	mm
Effective area	Ae	62.0	mm ²
Effective volume	Ve	2310	mm ³
Center leg area	Ac	61.0	mm ²
Winding area	Aw	47.4	mm ²
Weight of set	W	13	g

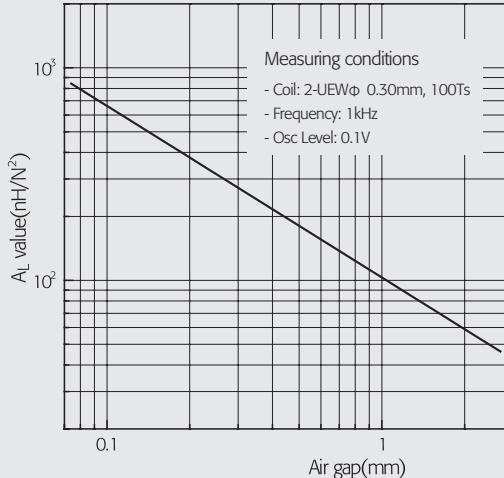


Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	25	41	56	110
Flyback converter	8	14	19	37
Forward converter	13	20	28	55

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

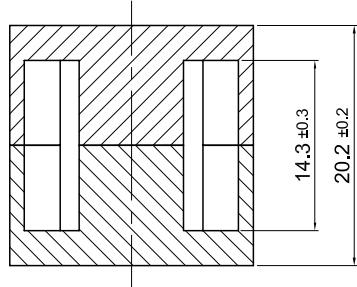
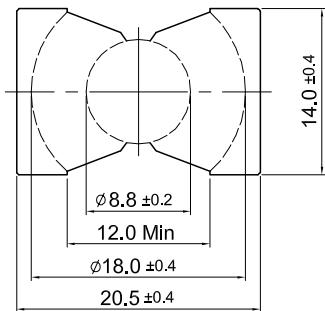
2) Temperature rise should be considered for design before choosing the final core size.

Air gap vs. A_L value for PQ2016S (Typical)



Material	A_L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	3500 ± 25%	1680	0.00	1.16	PL-7 PQ2016S
	655 ± 10%	320	0.10		PL-7 PQ2016S AL655
	185 ± 5%	90	0.50		PL-7 PQ2016S AL185
	103 ± 3%	50	1.00		PL-7 PQ2016S AL103
PL-9	4400 ± 25%	2120	0.00	0.95 (80°C)	PL-9 PQ2016S
PL-11	3700 ± 25%	1780	0.00	0.95	PL-11 PQ2016S
PL-F1	2600 ± 25%	1250	0.00	0.28 (500kHz, 50mT, 80°C)	PL-F1 PQ2016S

PQ2020S



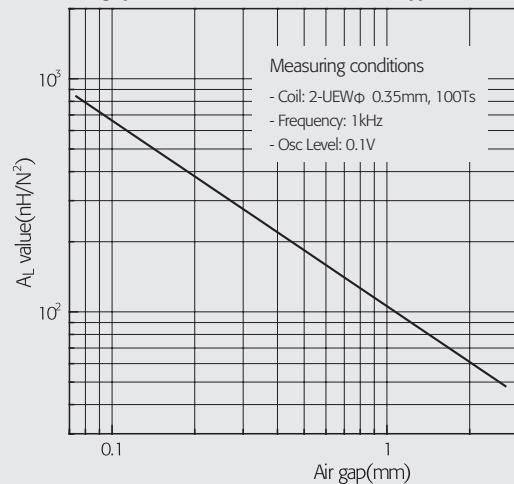
Parameter	Symbol	Value	Unit
Core constant	C1	0.738	mm ⁻¹
Effective path length	le	45.4	mm
Effective area	Ae	62.0	mm ²
Effective volume	Ve	2790	mm ³
Center leg area	Ac	61.0	mm ²
Winding area	Aw	65.8	mm ²
Weight of set	W	15	g

Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	35	57	78	152
Flyback converter	12	19	26	51
Forward converter	17	28	39	76

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

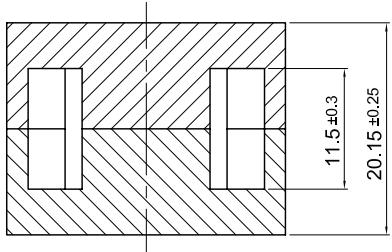
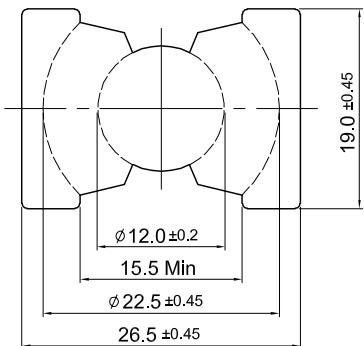
2) Temperature rise should be considered for design before choosing the final core size.

Air gap vs. A_L value for PQ2020S (Typical)



Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	3000 ± 25%	1760	0.00	1.40	PL-7 PQ2020S
	660 ± 10%	390	0.10		PL-7 PQ2020S AL660
	185 ± 5%	110	0.50		PL-7 PQ2020S AL185
	105 ± 3%	60	1.00		PL-7 PQ2020S AL105
PL-9	3600 ± 25%	2110	0.00	1.15 (80°C)	PL-9 PQ2020S
PL-11	3100 ± 25%	1820	0.00	1.15	PL-11 PQ2020S
PL-F1	2300 ± 25%	1350	0.00	0.33 (500kHz, 50mT, 80°C)	PL-F1 PQ2020S

PQ2620S



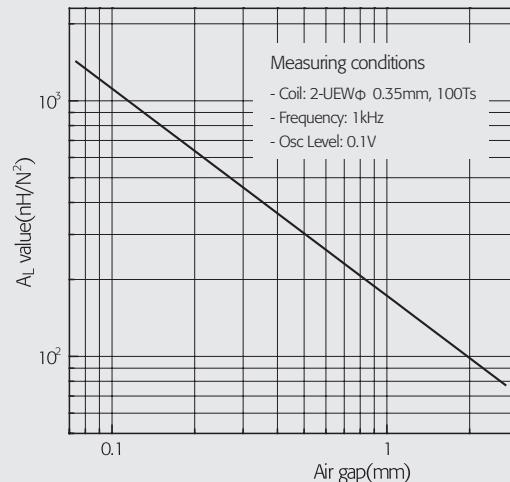
Parameter	Symbol	Value	Unit
Core constant	C1	0.391	mm ⁻¹
Effective path length	le	46.3	mm
Effective area	Ae	119.0	mm ²
Effective volume	Ve	5490	mm ³
Center leg area	Ac	113.0	mm ²
Winding area	Aw	60.4	mm ²
Weight of set	W	31	g

Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	61	100	138	268
Flyback converter	20	33	46	89
Forward converter	31	50	69	134

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

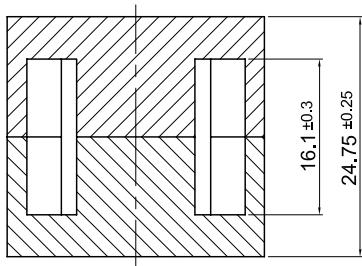
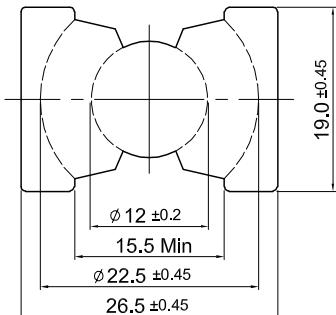
2) Temperature rise should be considered for design before choosing the final core size.

Air gap vs. A_L value for PQ2620S (Typical)



Material	A _L -value (nH/N ²)	μe	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	5500 ± 25%	1710	0.00	2.40	PL-7 PQ2620S
	1105 ± 7%	340	0.10		PL-7 PQ2620S AL1105
	310 ± 5%	100	0.50		PL-7 PQ2620S AL310
	173 ± 3%	54	1.00		PL-7 PQ2620S AL173
PL-9	6800 ± 25%	2120	0.00	2.25 (80°C)	PL-9 PQ2620S
PL-11	5700 ± 25%	1770	0.00	2.25	PL-11 PQ2620S
PL-F1	4000 ± 25%	1240	0.00	0.72 (500kHz, 50mT, 80°C)	PL-F1 PQ2620S

PQ2625S



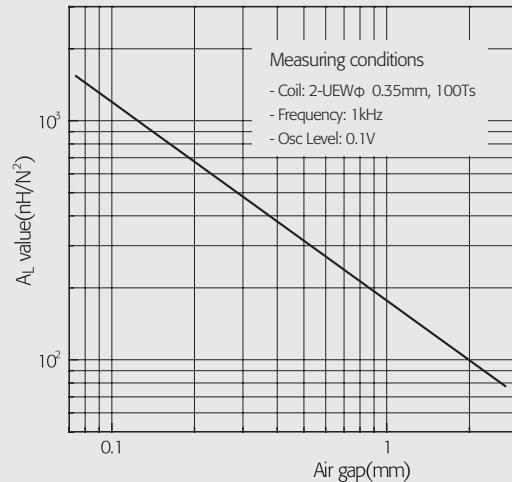
Parameter	Symbol	Value	Unit
Core constant	C1	0.472	mm ⁻¹
Effective path length	le	55.5	mm
Effective area	Ae	118.0	mm ²
Effective volume	Ve	6530	mm ³
Center leg area	Ac	113.0	mm ²
Winding area	Aw	84.5	mm ²
Weight of set	W	36	g

Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	85	138	191	372
Flyback converter	28	46	64	124
Forward converter	43	69	96	186

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

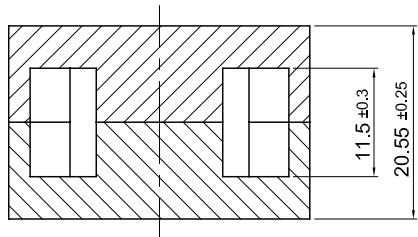
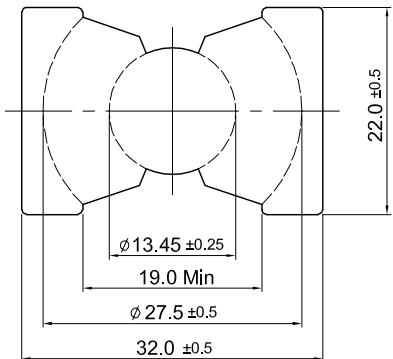
2) Temperature rise should be considered for design before choosing the final core size.

Air gap vs. A_L value for PQ2625S (Typical)

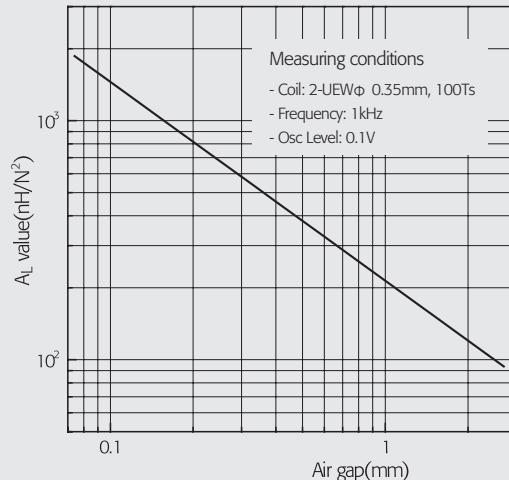


Material	A_L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	4500 ± 25%	1690	0.00	3.30	PL-7 PQ2625S
	1190 ± 7%	450	0.10		PL-7 PQ2625S AL1190
	315 ± 5%	120	0.50		PL-7 PQ2625S AL315
	175 ± 3%	70	1.00		PL-7 PQ2625S AL175
PL-9	5600 ± 25%	2100	0.00	2.70 (80°C)	PL-9 PQ2625S
PL-11	4700 ± 25%	1760	0.00	2.70	PL-11 PQ2625S
PL-F1	3350 ± 25%	1260	0.00	0.79 (500kHz, 50mT, 80°C)	PL-F1 PQ2625S

PQ3220S



Parameter	Symbol	Value	Unit
Core constant	C1	0.326	mm ⁻¹
Effective path length	le	55.5	mm
Effective area	Ae	170.0	mm ²
Effective volume	Ve	9420	mm ³
Center leg area	Ac	142.0	mm ²
Winding area	Aw	80.8	mm ²
Weight of set	W	42	g

Air gap vs. A_L value for PQ3220S (Typical)

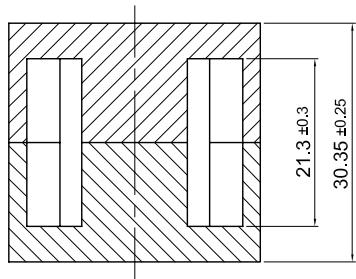
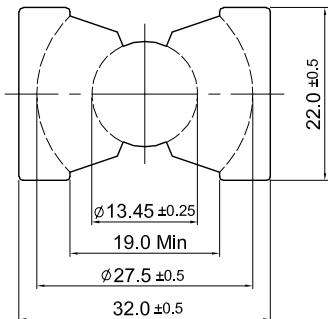
Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	117	190	264	513
Flyback converter	39	63	88	171
Forward converter	59	95	132	256

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A _L -value (nH/N ²)	μe	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	6700 ± 25%	1740	0.00	4.70	PL-7 PQ3220S
	1435 ± 7%	370	0.10		PL-7 PQ3220S AL1435
	390 ± 5%	100	0.50		PL-7 PQ3220S AL390
	215 ± 3%	60	1.00		PL-7 PQ3220S AL215
PL-9	8200 ± 25%	2130	0.00	3.90 (80°C)	PL-9 PQ3220S
PL-11	7000 ± 25%	1820	0.00	3.90	PL-11 PQ3220S
PL-F1	4850 ± 25%	1260	0.00	1.13 (500kHz, 50mT, 80°C)	PL-F1 PQ3220S

PQ3230S



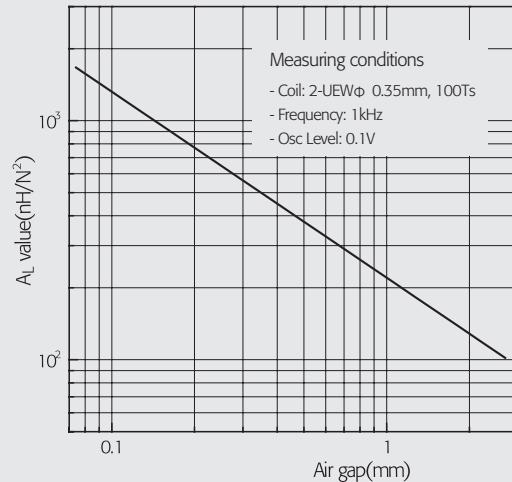
Parameter	Symbol	Value	Unit
Core constant	C1	0.464	mm ⁻¹
Effective path length	le	74.6	mm
Effective area	Ae	161.0	mm ²
Effective volume	Ve	11970	mm ³
Center leg area	Ac	142.0	mm ²
Winding area	Aw	149.6	mm ²
Weight of set	W	55	g

Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	205	334	462	899
Flyback converter	68	111	154	300
Forward converter	103	167	231	449

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

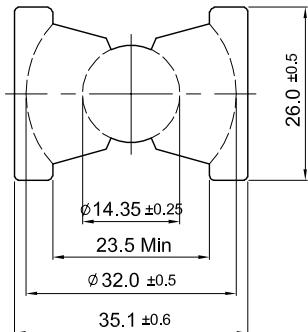
2) Temperature rise should be considered for design before choosing the final core size.

Air gap vs. A_L value for PQ3230S (Typical)

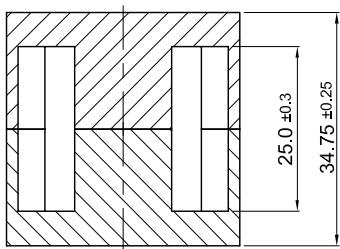


Material	A _L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	4750 ± 25%	1750	0.00	6.00	PL-7 PQ3230S
	1290 ± 7%	480	0.10		PL-7 PQ3230S AL1290
	390 ± 5%	140	0.50		PL-7 PQ3230S AL390
	220 ± 3%	80	1.00		PL-7 PQ3230S AL220
PL-9	5830 ± 25%	2150	0.00	4.90 (80°C)	PL-9 PQ3230S
PL-11	5000 ± 25%	1850	0.00	4.90	PL-11 PQ3230S
PL-F1	3500 ± 25%	1290	0.00	1.44 (500kHz, 50mT, 80°C)	PL-F1 PQ3230S

PQ3535S

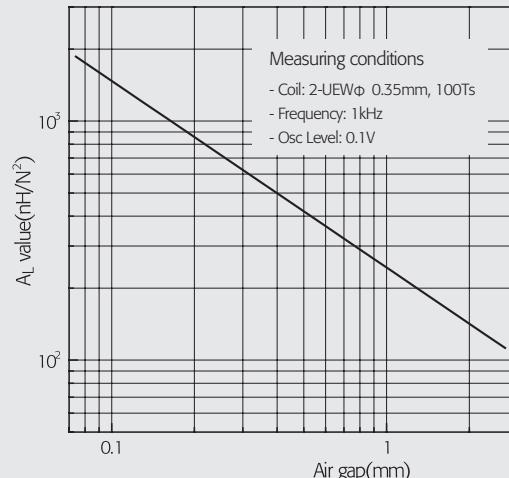


Parameter	Symbol	Value	Unit
Core constant	C1	0.448	mm ⁻¹
Effective path length	le	87.9	mm
Effective area	Ae	196.0	mm ²
Effective volume	Ve	17260	mm ³
Center leg area	Ac	162.0	mm ²
Winding area	Aw	220.6	mm ²
Weight of set	W	73	g



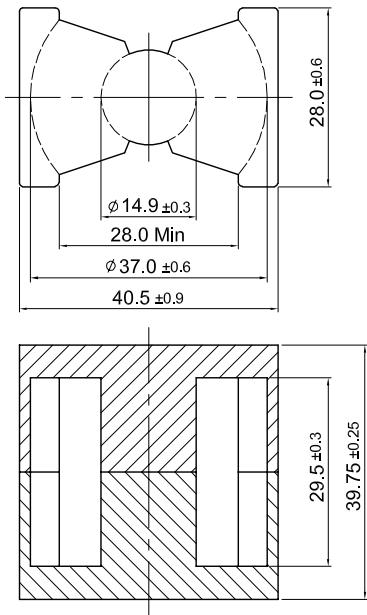
Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	369	599	830	1613
Flyback converter	123	200	277	538
Forward converter	184	300	415	807

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.
2) Temperature rise should be considered for design before choosing the final core size.

Air gap vs. A_L value for PQ3535S (Typical)

Material	A _L -value (nH/N ²)	μe	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	4500 ± 25%	1600	0.00	8.70	PL-7 PQ3535S
	1440 ± 7%	510	0.10		PL-7 PQ3535S AL1440
	425 ± 5%	150	0.50		PL-7 PQ3535S AL425
	245 ± 3%	90	1.00		PL-7 PQ3535S AL245
PL-9	5700 ± 25%	2030	0.00	7.10 (80°C)	PL-9 PQ3535S
PL-11	4700 ± 25%	1680	0.00	7.10	PL-11 PQ3535S
PL-F1	3700 ± 25%	1320	0.00	2.30 (500kHz, 50mT, 80°C)	PL-F1 PQ3535S

PQ4040S

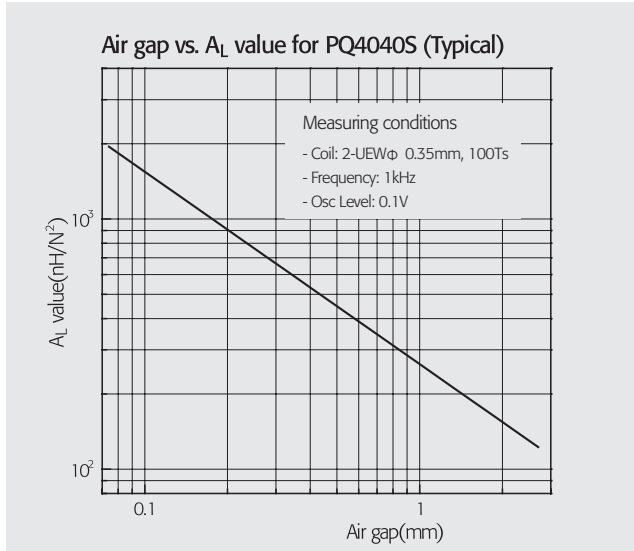


Parameter	Symbol	Value	Unit
Core constant	C1	0.508	mm ⁻¹
Effective path length	le	101.9	mm
Effective area	Ae	201.0	mm ²
Effective volume	Ve	20450	mm ³
Center leg area	Ac	174.0	mm ²
Winding area	Aw	326.0	mm ²
Weight of set	W	95	g

Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	559	908	1257	2445
Flyback converter	186	303	419	815
Forward converter	279	454	629	1223

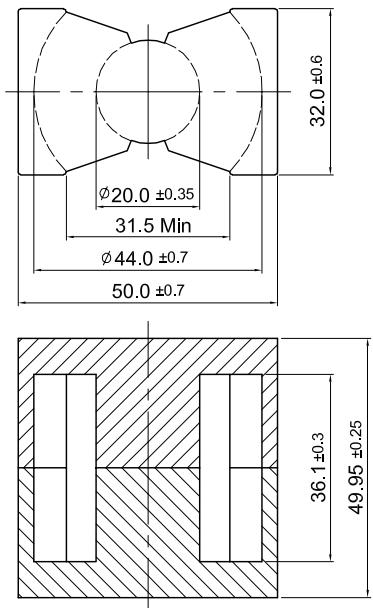
Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

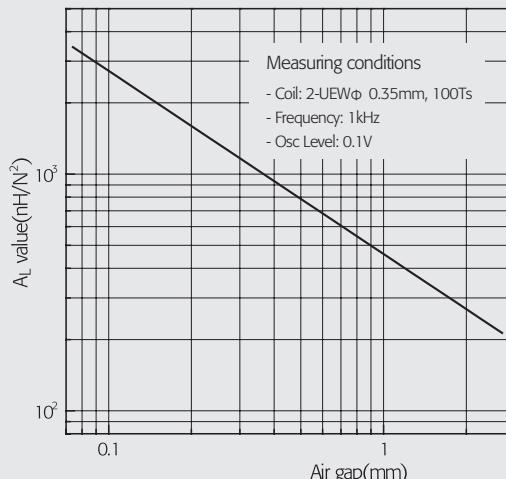


Material	A_L -value (nH/N^2)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	4300 ± 25%	1740	0.00	10.30	PL-7 PQ4040S
	1540 ± 10%	620	0.10		PL-7 PQ4040S AL1540
	455 ± 7%	180	0.50		PL-7 PQ4040S AL455
	260 ± 5%	105	1.00		PL-7 PQ4040S AL260
PL-9	5200 ± 25%	2100	0.00	8.40 (80°C)	PL-9 PQ4040S
PL-11	4500 ± 25%	1820	0.00	8.40	PL-11 PQ4040S
PL-F1	3100 ± 25%	1250	0.00	2.45 (500kHz, 50mT, 80°C)	PL-F1 PQ4040S

PQ5050S



Parameter	Symbol	Value	Unit
Core constant	C1	0.346	mm ⁻¹
Effective path length	le	113.0	mm
Effective area	Ae	328.0	mm ²
Effective volume	Ve	37240	mm ³
Center leg area	Ac	314.0	mm ²
Winding area	Aw	433.0	mm ²
Weight of set	W	195	g

Air gap vs. A_L value for PQ5050S (Typical)

Calculated Output Power

(Unit : W)

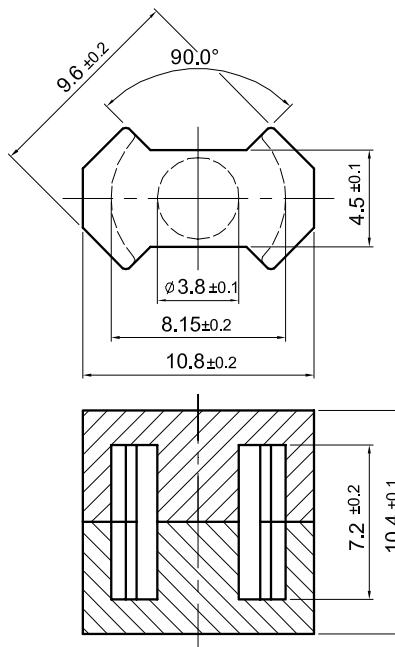
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	1211	1968	2725	5299
Flyback converter	404	656	908	1766
Forward converter	606	984	1363	2650

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	6400 ± 25%	1760	0.00	18.70	PL-7 PQ5050S
	2680 ± 10%	740	0.10		PL-7 PQ5050S AL2680
	810 ± 7%	220	0.50		PL-7 PQ5050S AL810
	460 ± 5%	130	1.00		PL-7 PQ5050S AL460
PL-9	7700 ± 25%	2120	0.00	15.30 (80°C)	PL-9 PQ5050S
PL-11	6700 ± 25%	1840	0.00	15.30	PL-11 PQ5050S
PL-F1	4580 ± 25%	1260	0.00	4.50 (500kHz, 50mT, 80°C)	PL-F1 PQ5050S

RM4



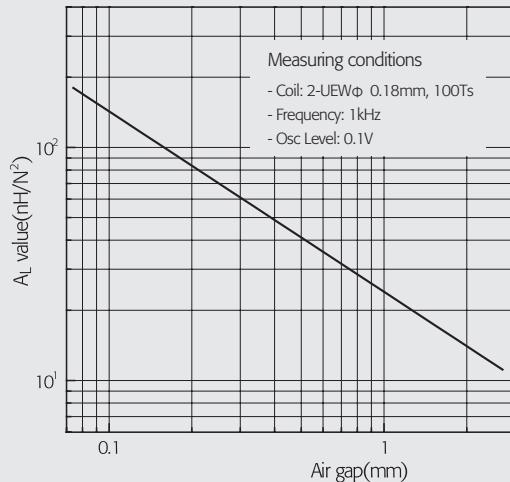
Parameter	Symbol	Value	Unit
Core constant	C1	1.700	mm ⁻¹
Effective path length	le	22.0	mm
Effective area	Ae	13.0	mm ²
Effective volume	Ve	286	mm ³
Center leg area	Ac	11.3	mm ²
Winding area	Aw	15.7	mm ²
Weight of set	W	1.7	g

Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	2	3	4	8
Flyback converter	1	1	1	3
Forward converter	1	1	2	4

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

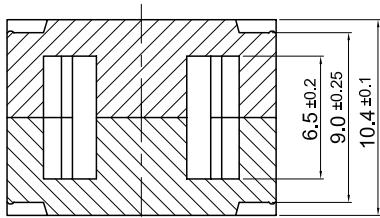
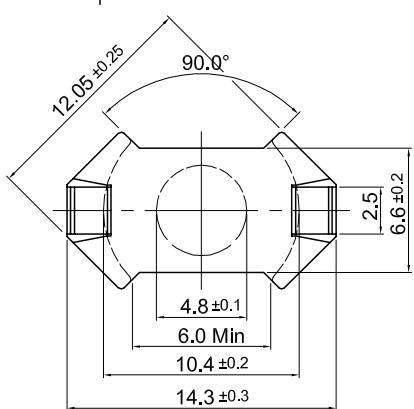
2) Temperature rise should be considered for design before choosing the final core size.

Air gap vs. A_L value for RM4 (Typical)

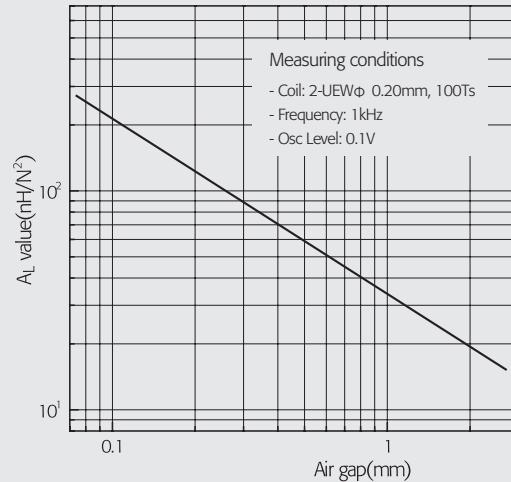


Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	1070 ± 25%	1450	0.00	0.16	PL-7 RM4
	140 ± 10%	190	0.10		PL-7 RM4 AL140
	42 ± 5%	57	0.50		PL-7 RM4 AL42
	24 ± 3%	32	1.00		PL-7 RM4 AL24
PL-9	1200 ± 25%	1620	0.00	0.13 (80°C)	PL-9 RM4
PL-11	1100 ± 25%	1490	0.00	0.13	PL-11 RM4
SM-23T	1030 ± 25%	1390	0.00		SM-23T RM4
SM-43T	2000 ± 25%	2700	0.00		SM-43T RM4
ST-30B	1200 ± 25%	1620	0.00		ST-30B RM4
SM-70S	3300 ± 25%	4460	0.00		SM-70S RM4
SM-100	3700 ± 30%	5000	0.00		SM-100 RM4

RM5



Parameter	Symbol	Value	Unit
Core constant	C1	0.930	mm ⁻¹
Effective path length	le	22.1	mm
Effective area	Ae	23.8	mm ²
Effective volume	Ve	526	mm ³
Center leg area	Ac	18.0	mm ²
Winding area	Aw	18.2	mm ²
Weight of set	W	3.0	g

Air gap vs. A_L value for RM5 (Typical)

Calculated Output Power

(Unit : W)

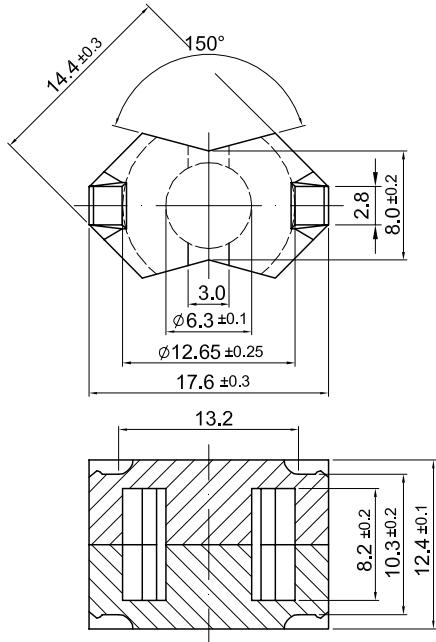
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	4	6	8	16
Flyback converter	1	2	3	5
Forward converter	2	3	4	8

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	2000 ± 25%	1480	0.00	0.27	PL-7 RM5
	210 ± 10%	160	0.10		PL-7 RM5 AL210
	60 ± 5%	40	0.50		PL-7 RM5 AL60
	34 ± 3%	25	1.00		PL-7 RM5 AL34
PL-9	2500 ± 25%	1850	0.00	0.22 (80°C)	PL-9 RM5
PL-11	2100 ± 25%	1550	0.00	0.22	PL-11 RM5
SM-23T	1900 ± 25%	1410	0.00		SM-23T RM5
SM-43T	3800 ± 25%	2810	0.00		SM-43T RM5
ST-30B	2500 ± 25%	1850	0.00		ST-30B RM5
SM-70S	6000 ± 25%	4440	0.00		SM-70S RM5
SM-100	6700 ± 30%	4960	0.00		SM-100 RM5

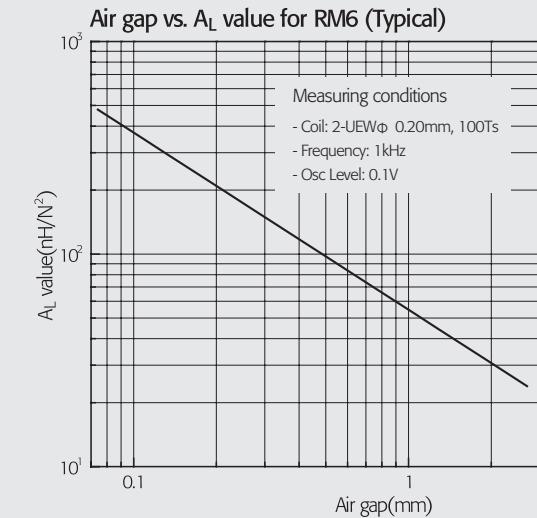
RM6



Parameter	Symbol	Value	Unit
Core constant	C1	0.780	mm ⁻¹
Effective path length	le	28.6	mm
Effective area	Ae	36.6	mm ²
Effective volume	Ve	1050	mm ³
Center leg area	Ac	31.1	mm ²
Winding area	Aw	26.0	mm ²
Weight of set	W	5.3	g

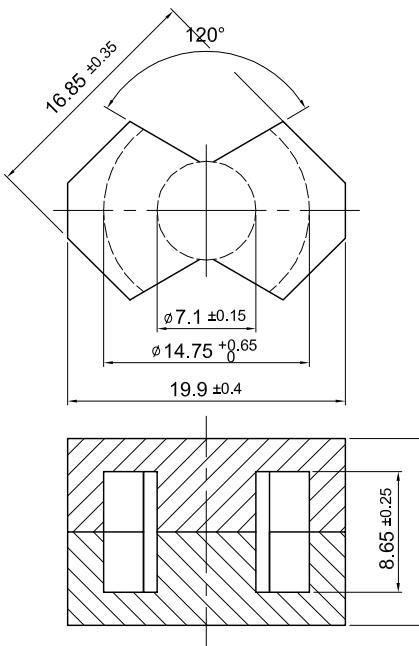
Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	8	13	18	36
Flyback converter	3	4	6	12
Forward converter	4	7	9	18

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.
2) Temperature rise should be considered for design before choosing the final core size.

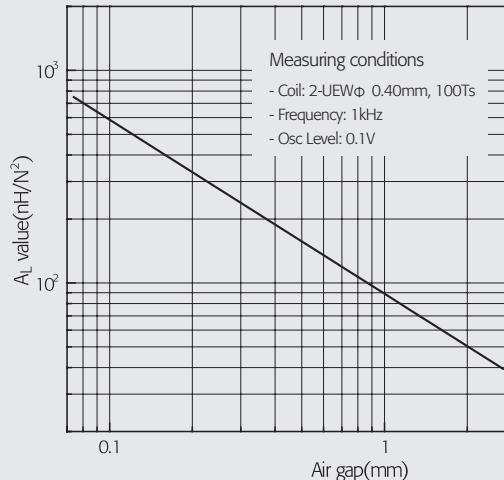


Material	A _L -value (nH/N ²)	μe	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	2400 ± 25%	1490	0.00	0.52	PL-7 RM6
	370 ± 10%	230	0.10		PL-7 RM6 AL370
	99 ± 5%	60	0.50		PL-7 RM6 AL99
	55 ± 3%	30	1.00		PL-7 RM6 AL55
PL-9	3000 ± 25%	1860	0.00	0.43 (80°C)	PL-9 RM6
PL-11	2500 ± 25%	1550	0.00	0.43	PL-11 RM6
SM-23T	2300 ± 25%	1430	0.00		SM-23T RM6
SM-43T	4500 ± 25%	2790	0.00		SM-43T RM6
ST-30B	3000 ± 25%	1860	0.00		ST-30B RM6
SM-70S	7200 ± 25%	4470	0.00		SM-70S RM6
SM-100	9000 ± 30%	5580	0.00		SM-100 RM6

RM7



Parameter	Symbol	Value	Unit
Core constant	C1	0.700	mm ⁻¹
Effective path length	le	30.4	mm
Effective area	Ae	43.0	mm ²
Effective volume	Ve	1340	mm ³
Center leg area	Ac	39.6	mm ²
Winding area	Aw	34.5	mm ²
Weight of set	W	7.9	g

Air gap vs. A_L value for RM7 (Typical)

Calculated Output Power

(Unit : W)

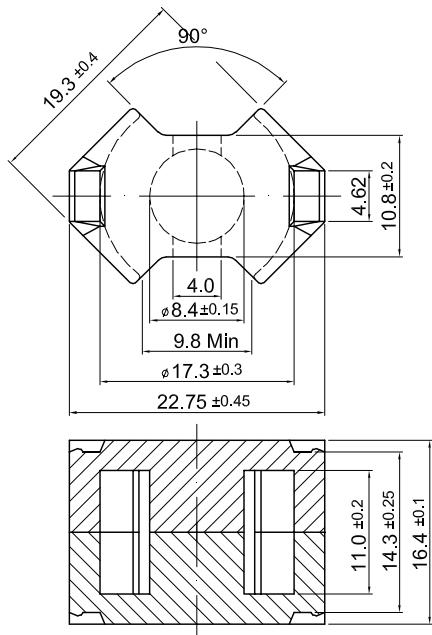
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	13	21	28	55
Flyback converter	4	7	9	18
Forward converter	6	10	14	28

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	3095 ± 25%	1720	0.00	0.77	PL-7 RM7
	590 ± 10%	330	0.10		PL-7 RM7 AL590
	155 ± 5%	90	0.50		PL-7 RM7 AL155
	89 ± 3%	50	1.00		PL-7 RM7 AL89
PL-9	3800 ± 25%	2120	0.00	0.67 (80°C)	PL-9 RM7
PL-11	3200 ± 25%	1780	0.00	0.67	PL-11 RM7
SM-23T	3000 ± 25%	1670	0.00		SM-23T RM7
SM-43T	5000 ± 25%	2780	0.00		SM-43T RM7
ST-30B	3500 ± 25%	1950	0.00		ST-30B RM7
SM-70S	8100 ± 25%	4510	0.00		SM-70S RM7
SM-100	10500 ± 30%	5850	0.00		SM-100 RM7

RM8



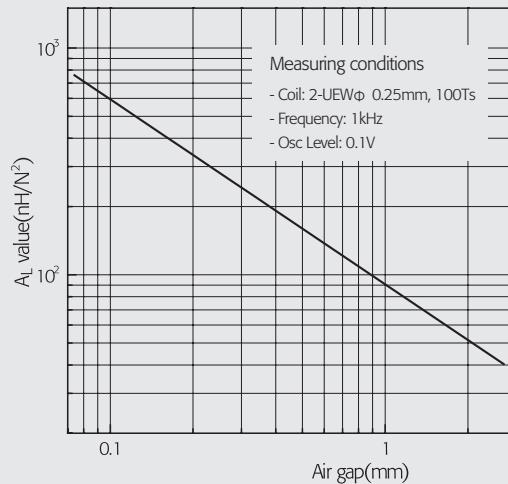
Parameter	Symbol	Value	Unit
Core constant	C1	0.590	mm ⁻¹
Effective path length	le	38.0	mm
Effective area	Ae	64.0	mm ²
Effective volume	Ve	2430	mm ³
Center leg area	Ac	55.3	mm ²
Winding area	Aw	48.9	mm ²
Weight of set	W	12	g

Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	27	43	60	117
Flyback converter	9	14	20	39
Forward converter	13	22	30	58

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

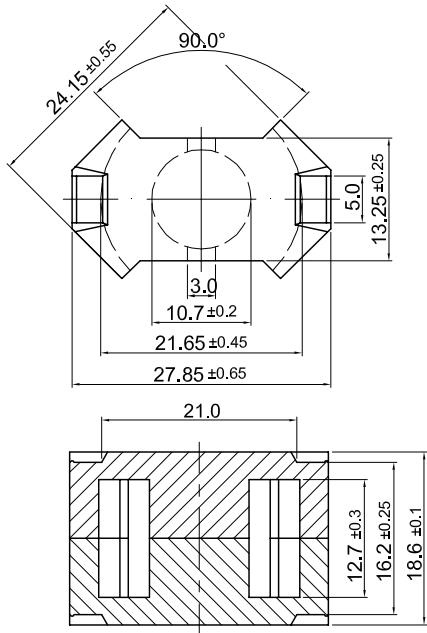
2) Temperature rise should be considered for design before choosing the final core size.

Air gap vs. A_L value for RM8 (Typical)

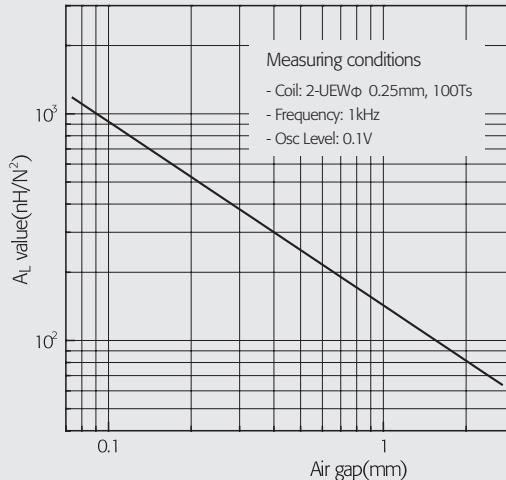


Material	A_L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	3300 ± 25%	1550	0.00	1.20	PL-7 RM8
	595 ± 10%	280	0.10		PL-7 RM8 AL595
	160 ± 5%	80	0.50		PL-7 RM8 AL160
	90 ± 3%	40	1.00		PL-7 RM8 AL90
PL-9	4100 ± 25%	1920	0.00	1.00 (80°C)	PL-9 RM8
PL-11	3400 ± 25%	1600	0.00	1.00	PL-11 RM8
SM-23T	3150 ± 25%	1480	0.00		SM-23T RM8
SM-43T	6000 ± 25%	2820	0.00		SM-43T RM8
ST-30B	4100 ± 25%	1920	0.00		ST-30B RM8
SM-70S	9590 ± 25%	4500	0.00		SM-70S RM8
SM-100	13000 ± 30%	6100	0.00		SM-100 RM8

RM10



Parameter	Symbol	Value	Unit
Core constant	C1	0.450	mm ⁻¹
Effective path length	le	44.0	mm
Effective area	Ae	98.0	mm ²
Effective volume	Ve	4310	mm ³
Center leg area	Ac	89.8	mm ²
Winding area	Aw	69.5	mm ²
Weight of set	W	22	g

Air gap vs. A_L value for RM10 (Typical)

Calculated Output Power

(Unit : W)

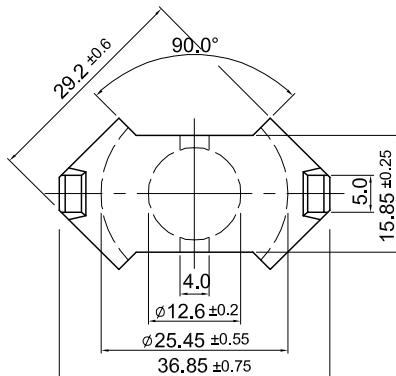
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	58	94	131	254
Flyback converter	19	31	44	85
Forward converter	29	47	65	127

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

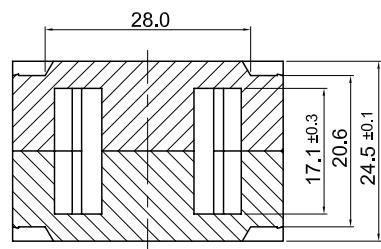
2) Temperature rise should be considered for design before choosing the final core size.

Material	A _L -value (nH/N ²)	μe	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	4200 ± 25%	1500	0.00	2.20	PL-7 RM10
	915 ± 10%	330	0.10		PL-7 RM10 AL915
	255 ± 5%	90	0.50		PL-7 RM10 AL255
	143 ± 3%	50	1.00		PL-7 RM10 AL143
PL-9	5240 ± 25%	1880	0.00	1.77 (80°C)	PL-9 RM10
PL-11	4400 ± 25%	1580	0.00	1.77	PL-11 RM10
SM-23T	4000 ± 25%	1430	0.00		SM-23T RM10
SM-43T	7800 ± 25%	2790	0.00		SM-43T RM10
ST-30B	5240 ± 25%	1880	0.00		ST-30B RM10
SM-70S	13400 ± 25%	4800	0.00		SM-70S RM10
SM-100	15000 ± 30%	5370	0.00		SM-100 RM10

RM12



Parameter	Symbol	Value	Unit
Core constant	C1	0.390	mm ⁻¹
Effective path length	le	57.0	mm
Effective area	Ae	146.0	mm ²
Effective volume	Ve	8340	mm ³
Center leg area	Ac	124.0	mm ²
Winding area	Aw	110.0	mm ²
Weight of set	W	42	g

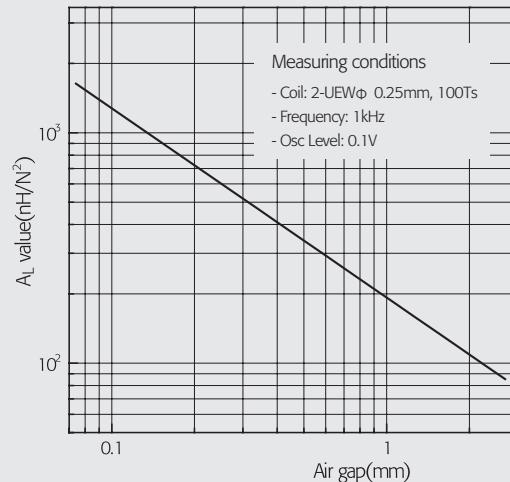


Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	137	223	308	599
Flyback converter	46	74	103	200
Forward converter	68	111	154	300

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

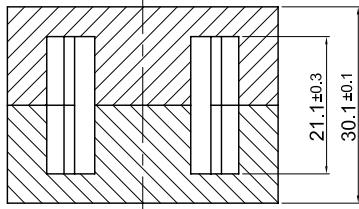
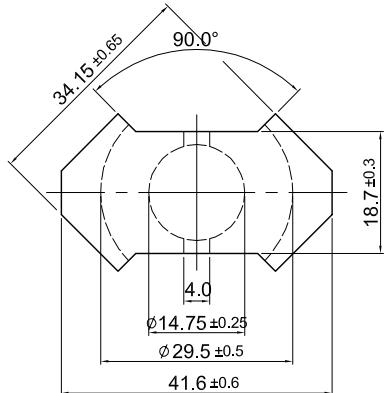
2) Temperature rise should be considered for design before choosing the final core size.

Air gap vs. A_L value for RM12 (Typical)

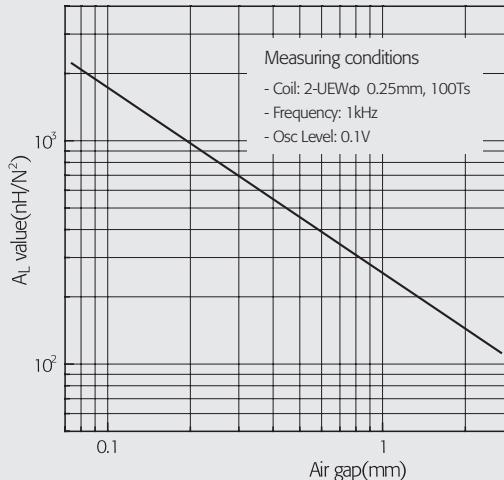


Material	A_L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	5300 ± 25%	1640	0.00	4.20	PL-7 RM12
	1270 ± 10%	390	0.10		PL-7 RM12 AL1270
	345 ± 7%	110	0.50		PL-7 RM12 AL345
	190 ± 5%	60	1.00		PL-7 RM12 AL190
PL-9	6600 ± 25%	2050	0.00	3.42 (80°C)	PL-9 RM12
PL-11	5500 ± 25%	1710	0.00	3.42	PL-11 RM12
SM-23T	5070 ± 25%	1570	0.00		SM-23T RM12
SM-43T	9000 ± 25%	2790	0.00		SM-43T RM12
ST-30B	6600 ± 25%	2050	0.00		ST-30B RM12
SM-70S	13000 ± 25%	4030	0.00		SM-70S RM12
SM-100	17000 ± 30%	5270	0.00		SM-100 RM12

RM14



Parameter	Symbol	Value	Unit
Core constant	C1	0.350	mm ⁻¹
Effective path length	le	70.0	mm
Effective area	Ae	200.0	mm ²
Effective volume	Ve	14000	mm ³
Center leg area	Ac	170.0	mm ²
Winding area	Aw	155.0	mm ²
Weight of set	W	70	g

Air gap vs. A_L value for RM14 (Typical)

Calculated Output Power

(Unit : W)

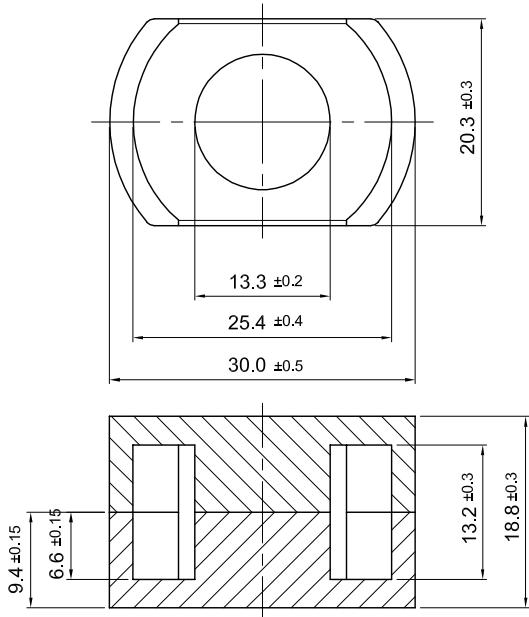
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	264	430	595	1157
Flyback converter	88	143	198	386
Forward converter	132	215	297	578

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	6000 ± 25%	1670	0.00	7.00	PL-7 RM14
	1720 ± 10%	480	0.10		PL-7 RM14 AL1720
	460 ± 7%	130	0.50		PL-7 RM14 AL460
	255 ± 5%	70	1.00		PL-7 RM14 AL255
PL-9	7500 ± 25%	2090	0.00	5.70 (80°C)	PL-9 RM14
PL-11	6300 ± 25%	1750	0.00	5.70	PL-11 RM14
SM-23T	5750 ± 25%	1600	0.00		SM-23T RM14
SM-43T	10000 ± 25%	2780	0.00		SM-43T RM14
ST-30B	7500 ± 25%	2090	0.00		ST-30B RM14
SM-70S	14800 ± 25%	4120	0.00		SM-70S RM14
SM-100	19700 ± 30%	5490	0.00		SM-100 RM14

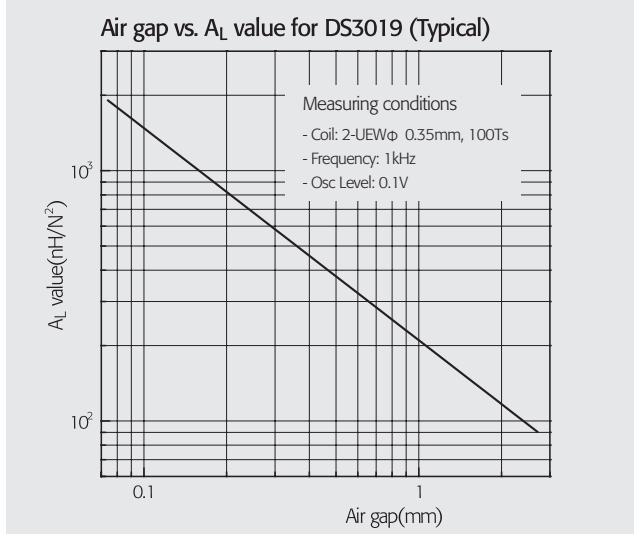
DS3019



Parameter	Symbol	Value	Unit
Core constant	C1	0.395	mm ⁻¹
Effective path length	le	46.2	mm
Effective area	Ae	117.0	mm ²
Effective volume	Ve	5410	mm ³
Center leg area	Ac	139.0	mm ²
Winding area	Aw	80.0	mm ²
Weight of set	W	27	g

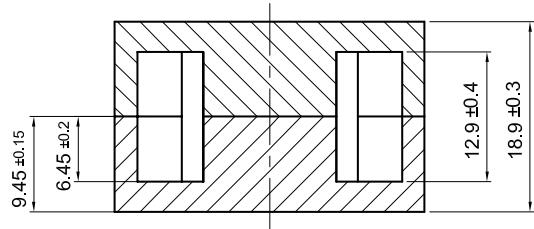
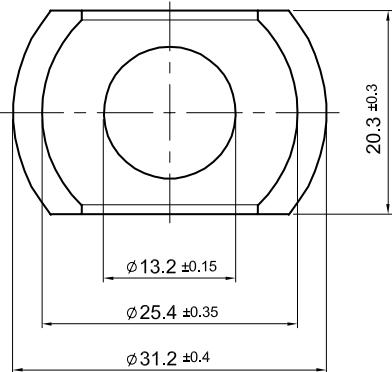
Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	80	130	180	349
Flyback converter	27	43	60	116
Forward converter	40	65	90	175

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.
2) Temperature rise should be considered for design before choosing the final core size.

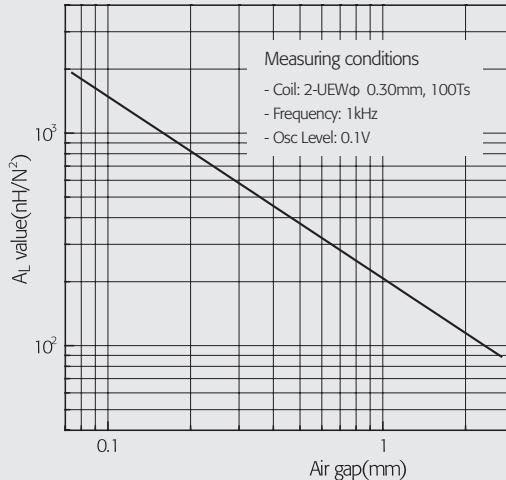


Material	A_L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	5350 ± 25%	1680	0.00	2.70	PL-7 DS3019
	1435 ± 10%	450	0.10		PL-7 DS3019 AL1435
	380 ± 7%	120	0.50		PL-7 DS3019 AL380
	210 ± 5%	70	1.00		PL-7 DS3019 AL210
PL-9	6680 ± 25%	2100	0.00	2.44 (80°C)	PL-9 DS3019
PL-11	5350 ± 25%	1680	0.00	2.44	PL-11 DS3019

DS3119W



Parameter	Symbol	Value	Unit
Core constant	C1	0.390	mm ⁻¹
Effective path length	le	50.2	mm
Effective area	Ae	127.5	mm ²
Effective volume	Ve	6396	mm ³
Center leg area	Ac	136.9	mm ²
Winding area	Aw	78.7	mm ²
Weight of set	W	26	g

Air gap vs. A_L value for DS3119W (Typical)

Calculated Output Power

(Unit : W)

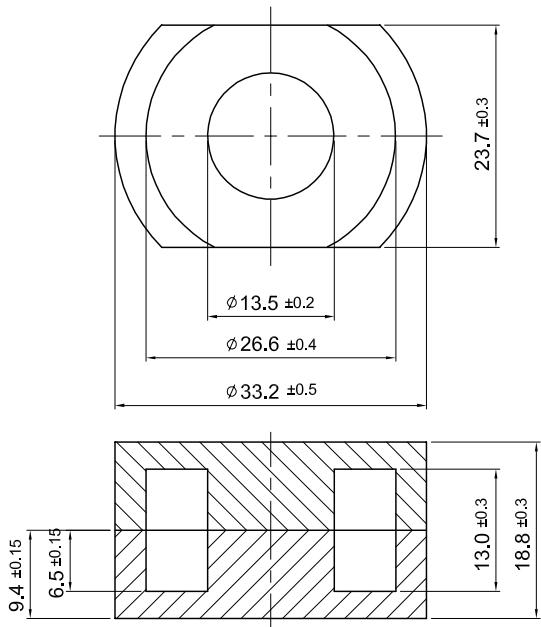
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	86	139	193	374
Flyback converter	29	46	64	125
Forward converter	43	70	96	187

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	5400 ± 25%	1680	0.00	3.20	PL-7 DS3119W
	1480 ± 10%	460	0.10		PL-7 DS3119W AL1480
	380 ± 7%	120	0.50		PL-7 DS3119W AL380
	210 ± 5%	70	1.00		PL-7 DS3119W AL210
PL-9	6800 ± 25%	2110	0.00	2.95 (80°C)	PL-9 DS3119W
PL-11	5400 ± 25%	1680	0.00	2.95	PL-11 DS3119W

DS3319

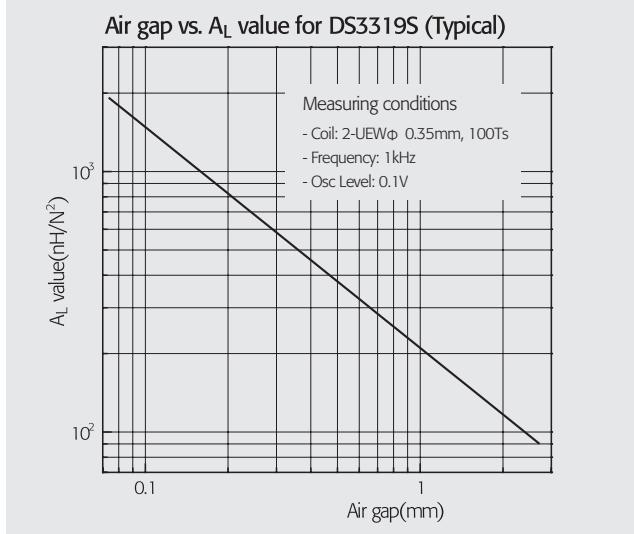


Parameter	Symbol	Value	Unit
Core constant	C1	0.350	mm ¹
Effective path length	le	51.4	mm
Effective area	Ae	147.4	mm ²
Effective volume	Ve	7576	mm ³
Center leg area	Ac	143.0	mm ²
Winding area	Aw	85.2	mm ²
Weight of set	W	30	g

Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	107	174	241	468
Flyback converter	36	58	80	156
Forward converter	54	87	120	234

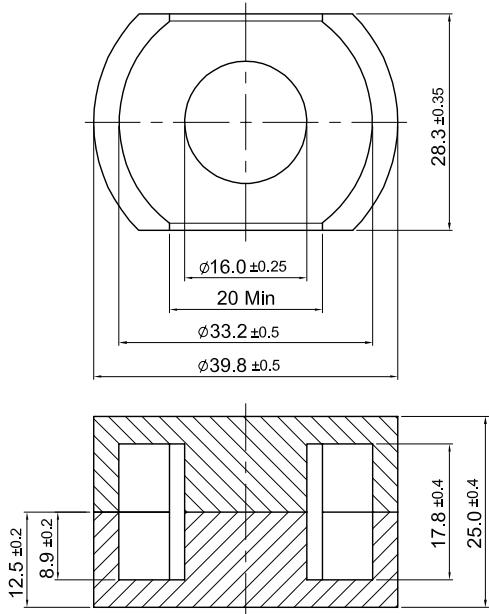
Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

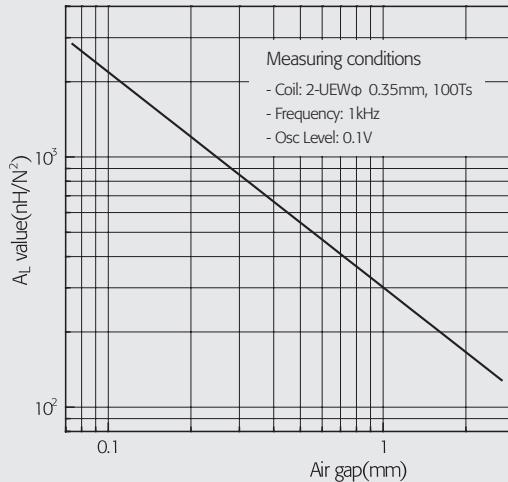


Material	A_L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	6000 ± 25%	1670	0.00	3.20	PL-7 DS3319
	1470 ± 10%	410	0.10		PL-7 DS3319 AL1470
	385 ± 7%	110	0.50		PL-7 DS3319 AL385
	210 ± 5%	60	1.00		PL-7 DS3319 AL210
PL-9	7450 ± 25%	2070	0.00	3.41 (80°C)	PL-9 DS3319
PL-11	6000 ± 25%	1670	0.00	3.41	PL-11 DS3319

DS4025



Parameter	Symbol	Value	Unit
Core constant	C1	0.330	mm ⁻¹
Effective path length	le	67.3	mm
Effective area	Ae	205.0	mm ²
Effective volume	Ve	13797	mm ³
Center leg area	Ac	201.0	mm ²
Winding area	Aw	153.0	mm ²
Weight of set	W	53	g

Air gap vs. A_L value for DS4025 (Typical)

Calculated Output Power

(Unit : W)

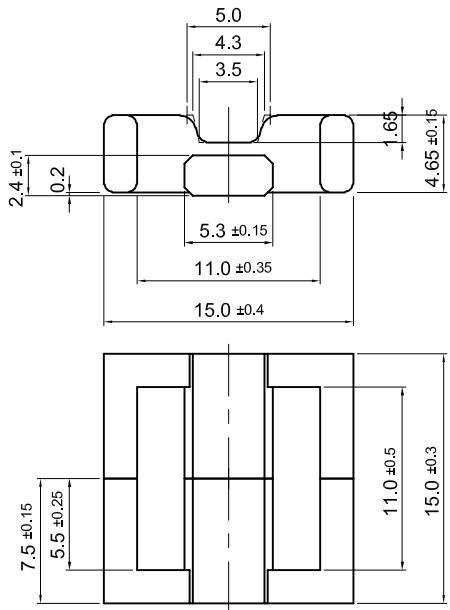
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	268	435	602	1170
Flyback converter	89	145	201	390
Forward converter	134	217	301	585

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	6400 ± 25%	1680	0.00	7.20	PL-7 DS4025
	2110 ± 10%	550	0.10		PL-7 DS4025 AL2110
	540 ± 7%	140	0.50		PL-7 DS4025 AL540
	300 ± 5%	80	1.00		PL-7 DS4025 AL300
PL-9	8000 ± 25%	2100	0.00	6.20 (80°C)	PL-9 DS4025
PL-11	6400 ± 25%	1680	0.00	6.20	PL-11 DS4025

EFD1515S EFD15



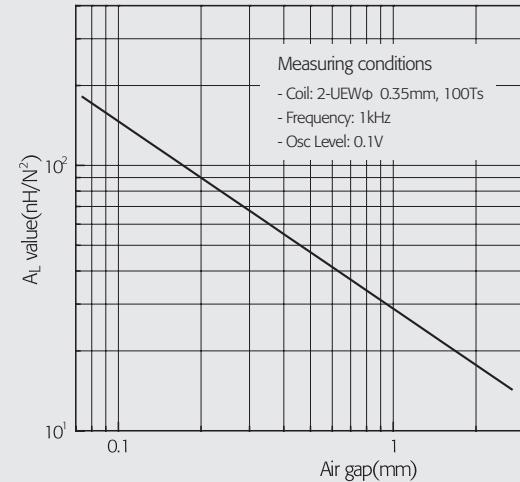
Parameter	Symbol	Value	Unit
Core constant	C1	2.270	mm ¹
Effective path length	le	34.0	mm
Effective area	Ae	15.0	mm ²
Effective volume	Ve	510	mm ³
Center leg area	Ac	12.7	mm ²
Winding area	Aw	31.4	mm ²
Weight of set	W	2.5	g

Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	4	7	9	18
Flyback converter	1	2	3	6
Forward converter	2	3	5	9

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

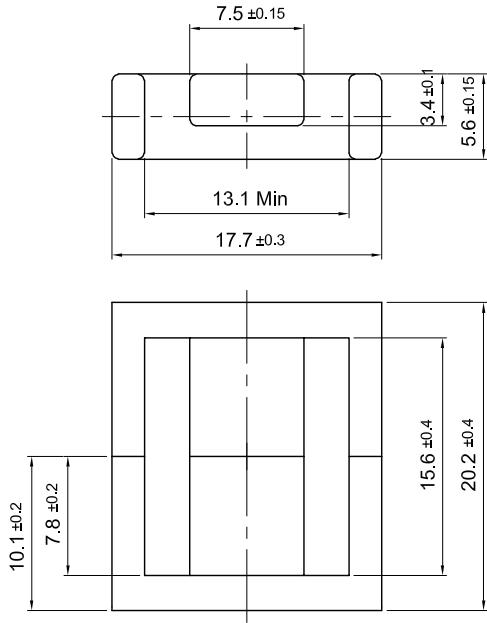
2) Temperature rise should be considered for design before choosing the final core size.

Air gap vs. A_L value for EFD1515S (Typical)

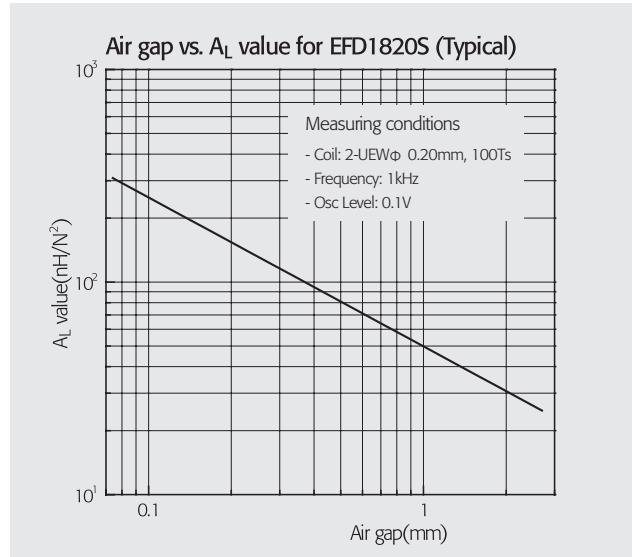


Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	890 ± 25%	1610	0.00	0.26	PL-7 EFD1515S
	150 ± 10%	270	0.10		PL-7 EFD1515S AL150
	47 ± 7%	85	0.50		PL-7 EFD1515S AL47
	29 ± 5%	52	1.00		PL-7 EFD1515S AL29
PL-9	1110 ± 25%	2000	0.00	0.23 (80°C)	PL-9 EFD1515S
PL-11	900 ± 25%	1630	0.00	0.23	PL-11 EFD1515S

EFD1820S



Parameter	Symbol	Value	Unit
Core constant	C1	2.020	mm ⁻¹
Effective path length	le	51.6	mm
Effective area	Ae	25.6	mm ²
Effective volume	Ve	1320	mm ³
Center leg area	Ac	25.5	mm ²
Winding area	Aw	46.0	mm ²
Weight of set	W	5.9	g



Calculated Output Power

(Unit : W)

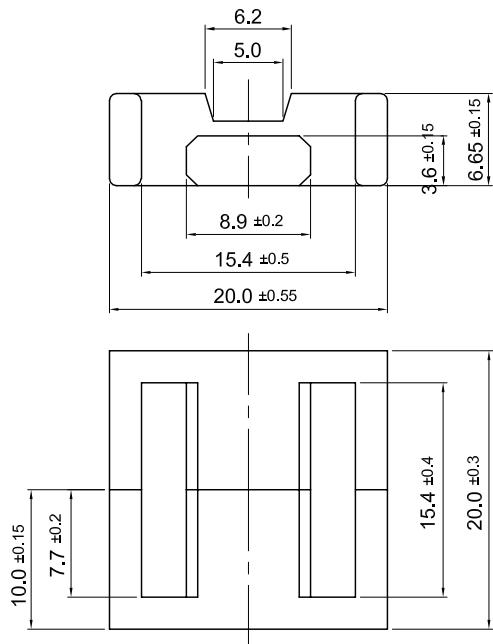
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	10	16	23	44
Flyback converter	3	5	8	15
Forward converter	5	8	11	22

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	1050 ± 25%	1690	0.00	0.73	PL-7 EFD1820S
	250 ± 10%	400	0.10		PL-7 EFD1820S AL250
	83 ± 5%	130	0.50		PL-7 EFD1820S AL83
	50 ± 3%	80	1.00		PL-7 EFD1820S AL50
PL-9	1310 ± 25%	2110	0.00	0.59 (80°C)	PL-9 EFD1820S
PL-11	1100 ± 25%	1770	0.00	0.73	PL-11 EFD1820S

EFD2020S EFD20

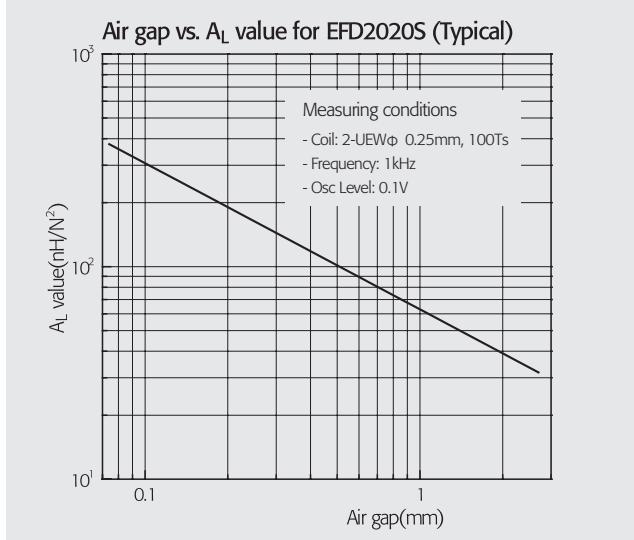


Parameter	Symbol	Value	Unit
Core constant	C1	1.520	mm ⁻¹
Effective path length	le	47.0	mm
Effective area	Ae	31.0	mm ²
Effective volume	Ve	1460	mm ³
Center leg area	Ac	32.0	mm ²
Winding area	Aw	50.0	mm ²
Weight of set	W	7.0	g

Calculated Output Power		(Unit : W)			
Circuit type		Switching Frequency			
		20kHz	50kHz	100kHz	250kHz
Push-pull converter		13	21	30	58
Flyback converter		4	7	10	19
Forward converter		7	11	15	29

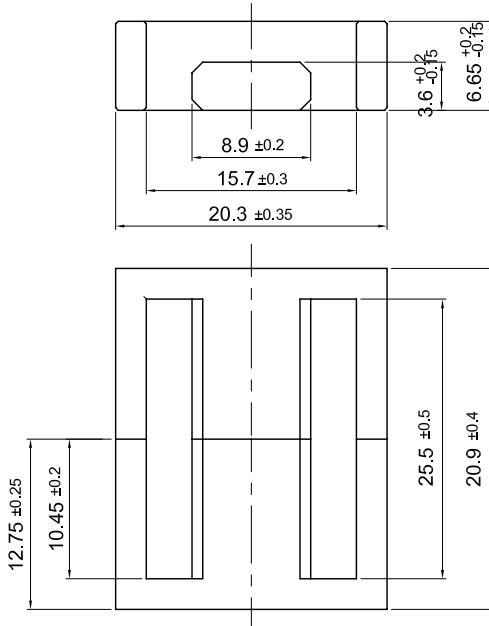
Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

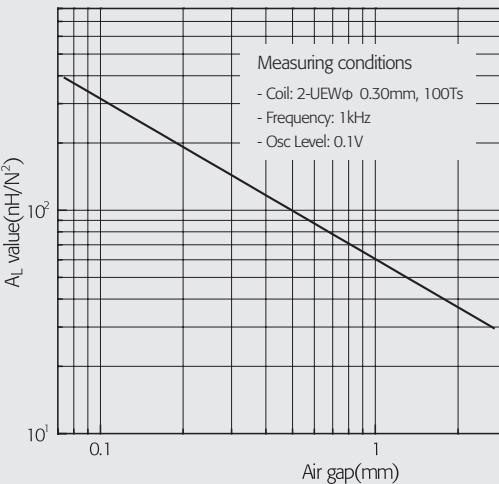


Material	A_L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	1370 ± 25%	1660	0.00	0.87	PL-7 EFD2020S
	310 ± 10%	370	0.10		PL-7 EFD2020S AL310
	102 ± 5%	120	0.50		PL-7 EFD2020S AL102
	62 ± 3%	75	1.00		PL-7 EFD2020S AL62
PL-9	1710 ± 25%	2070	0.00	0.74 (80°C)	PL-9 EFD2020S
PL-11	1400 ± 25%	1690	0.00	0.74	PL-11 EFD2020S

EFD2025N



Parameter	Symbol	Value	Unit
Core constant	C1	1.940	mm ⁻¹
Effective path length	le	59.7	mm
Effective area	Ae	30.8	mm ²
Effective volume	Ve	1840	mm ³
Center leg area	Ac	14.4	mm ²
Winding area	Aw	33.8	mm ²
Weight of set	W	9.0	g

Air gap vs. A_L value for EFD2025N (Typical)

Calculated Output Power

(Unit : W)

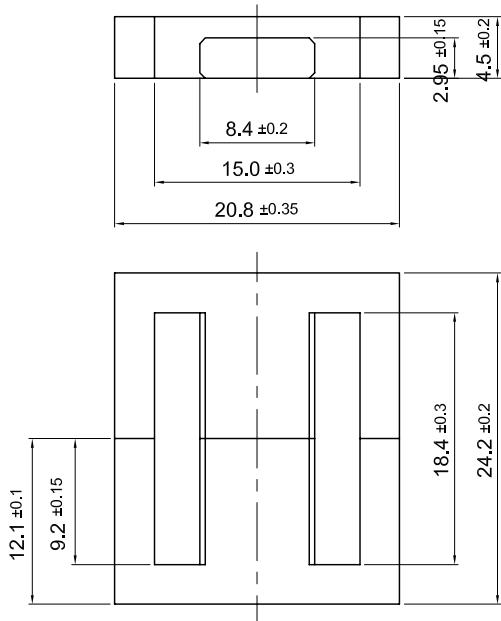
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	9	14	20	39
Flyback converter	3	5	7	13
Forward converter	4	7	10	19

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A _L -value (nH/N ²)	μe	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	1100 ± 25%	1700	0.00	0.92	PL-7 EFD2025N
	315 ± 10%	490	0.10		PL-7 EFD2025N AL315
	100 ± 5%	150	0.50		PL-7 EFD2025N AL100
	61 ± 3%	95	1.00		PL-7 EFD2025N AL61
PL-9	1360 ± 25%	2100	0.00	0.83 (80°C)	PL-9 EFD2025N
PL-11	1100 ± 25%	1700	0.00	0.83	PL-11 EFD2025N

EFD2124S

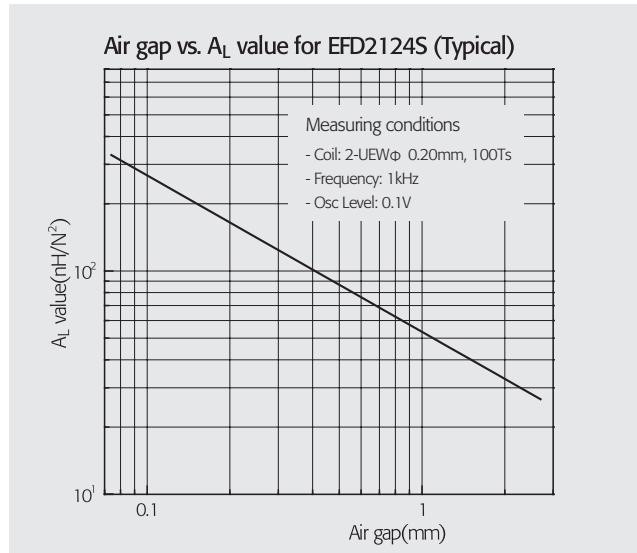


Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	12	20	28	54
Flyback converter	4	7	9	18
Forward converter	6	10	14	27

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

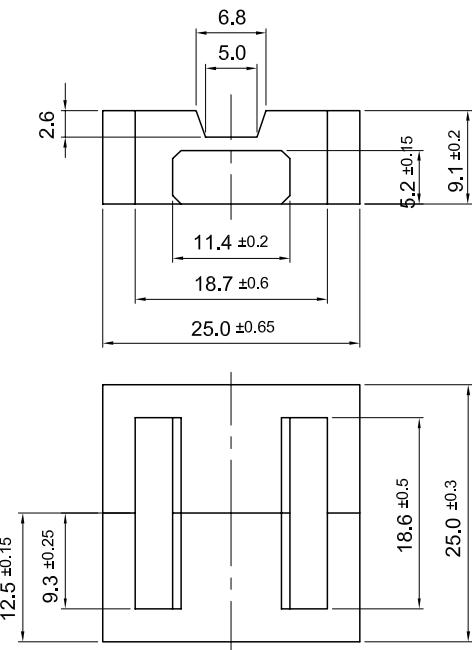
2) Temperature rise should be considered for design before choosing the final core size.

Parameter	Symbol	Value	Unit
Core constant	C1	2.180	mm ¹
Effective path length	le	52.1	mm
Effective area	Ae	23.9	mm ²
Effective volume	Ve	1245	mm ³
Center leg area	Ac	24.8	mm ²
Winding area	Aw	60.7	mm ²
Weight of set	W	6.0	g

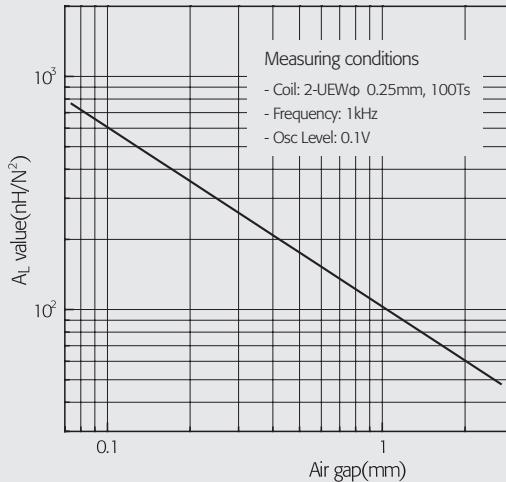


Material	A_L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	970 ± 25%	1680	0.00	0.70	PL-7 EFD2124S
	265 ± 10%	460	0.10		PL-7 EFD2124S AL265
	88 ± 5%	150	0.50		PL-7 EFD2124S AL88
	54 ± 3%	95	1.00		PL-7 EFD2124S AL54
PL-9	1210 ± 25%	2100	0.00	0.56 (80°C)	PL-9 EFD2124S
PL-11	1000 ± 25%	1730	0.00	0.56	PL-11 EFD2124S

EFD2525S EFD25



Parameter	Symbol	Value	Unit
Core constant	C1	0.980	mm ⁻¹
Effective path length	le	57.0	mm
Effective area	Ae	58.0	mm ²
Effective volume	Ve	3300	mm ³
Center leg area	Ac	60.0	mm ²
Winding area	Aw	70.0	mm ²
Weight of set	W	14	g

Air gap vs. A_L value for EFD2525S (Typical)

Calculated Output Power

(Unit : W)

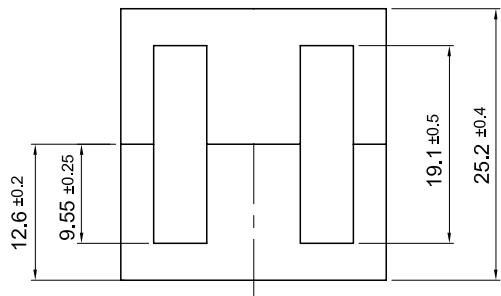
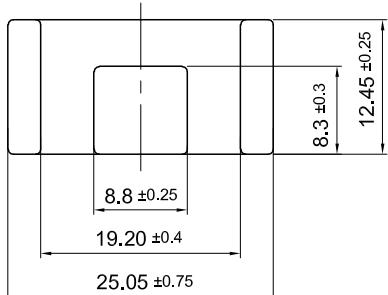
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	35	56	78	151
Flyback converter	12	19	26	50
Forward converter	17	28	39	76

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A _L -value (nH/N ²)	μe	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	2250 ± 25%	1750	0.00	1.65	PL-7 EFD2525S
	610 ± 10%	480	0.10		PL-7 EFD2525S AL610
	175 ± 5%	140	0.50		PL-7 EFD2525S AL175
	102 ± 3%	80	1.00		PL-7 EFD2525S AL102
PL-9	2800 ± 25%	2180	0.00	1.50 (80°C)	PL-9 EFD2525S
PL-11	2300 ± 25%	1790	0.00	1.50	PL-11 EFD2525S

EFD2525V



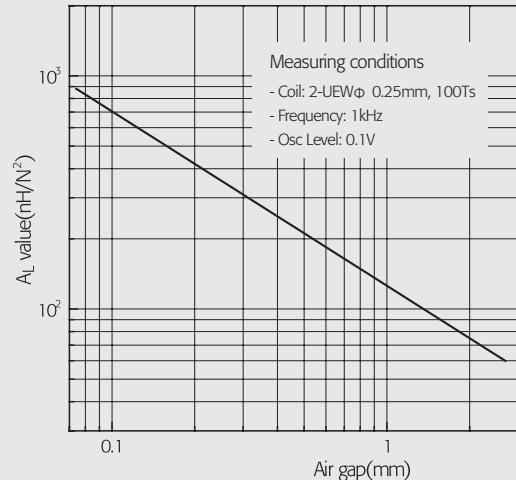
Parameter	Symbol	Value	Unit
Core constant	C1	0.810	mm ¹
Effective path length	le	60.0	mm
Effective area	Ae	73.0	mm ²
Effective volume	Ve	4300	mm ³
Center leg area	Ac	73.0	mm ²
Winding area	Aw	91.7	mm ²
Weight of set	W	21	g

Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	57	93	128	250
Flyback converter	19	31	43	83
Forward converter	29	46	64	125

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

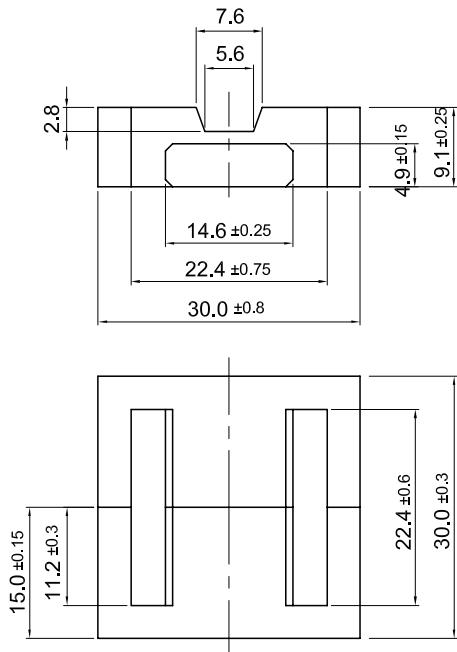
2) Temperature rise should be considered for design before choosing the final core size.

Air gap vs. A_L value for EFD2525V (Typical)

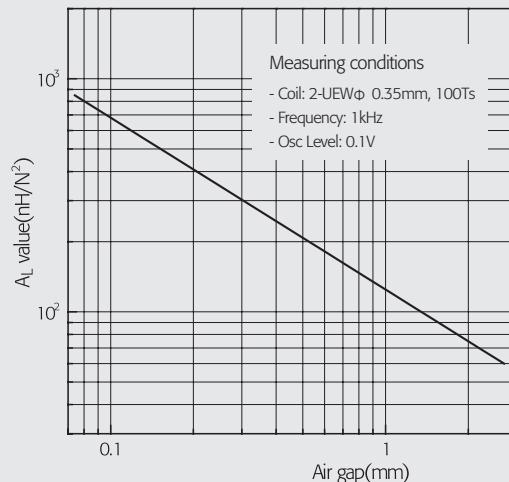


Material	A _L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	2700 ± 25%	1740	0.00	2.60	PL-7 EFD2525V
	700 ± 10%	450	0.10		PL-7 EFD2525V AL700
	215 ± 5%	140	0.50		PL-7 EFD2525V AL215
	125 ± 3%	80	1.00		PL-7 EFD2525V AL125
PL-9	3350 ± 25%	2160	0.00	2.25 (80°C)	PL-9 EFD2525V
PL-11	2800 ± 25%	1800	0.00	2.60	PL-11 EFD2525V

EFD3030S EFD30



Parameter	Symbol	Value	Unit
Core constant	C1	0.990	mm ⁻¹
Effective path length	le	68.0	mm
Effective area	Ae	69.0	mm ²
Effective volume	Ve	4700	mm ³
Center leg area	Ac	71.0	mm ²
Winding area	Aw	87.4	mm ²
Weight of set	W	24	g

Air gap vs. A_L value for EFD3030S (Typical)

Calculated Output Power (Unit : W)

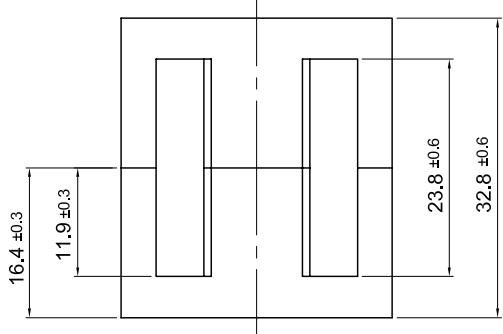
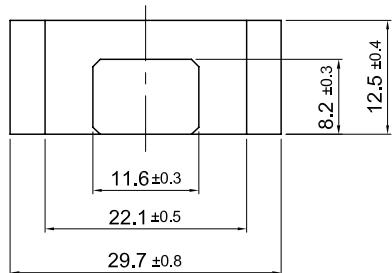
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	51	84	116	225
Flyback converter	17	28	39	75
Forward converter	26	42	58	113

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	1950 ± 25%	1540	0.00	2.60	PL-7 EFD3030S
	680 ± 10%	540	0.10		PL-7 EFD3030S AL680
	210 ± 5%	170	0.50		PL-7 EFD3030S AL210
	125 ± 3%	100	1.00		PL-7 EFD3030S AL125
PL-9	2500 ± 25%	1970	0.00	2.35 (80°C)	PL-9 EFD3030S
PL-11	2000 ± 25%	1580	0.00	2.35	PL-11 EFD3030S

EFD3033V

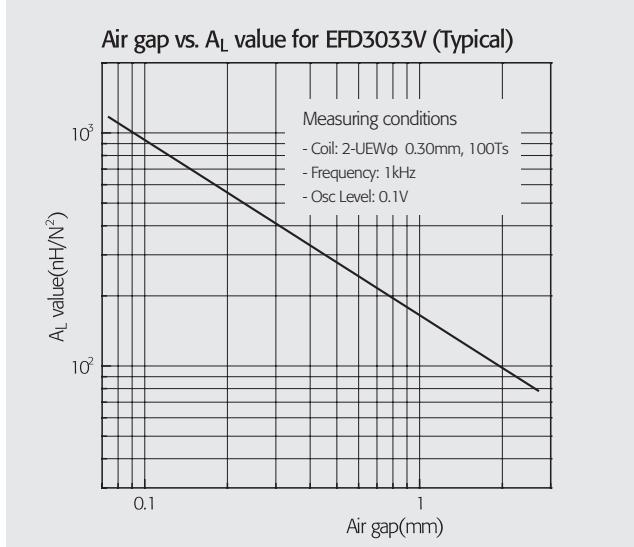


Parameter	Symbol	Value	Unit
Core constant	C1	0.750	mm ⁻¹
Effective path length	le	73.0	mm
Effective area	Ae	97.0	mm ²
Effective volume	Ve	7100	mm ³
Center leg area	Ac	95.0	mm ²
Winding area	Aw	125.0	mm ²
Weight of set	W	35	g

Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	103	168	233	452
Flyback converter	34	56	78	151
Forward converter	52	84	116	226

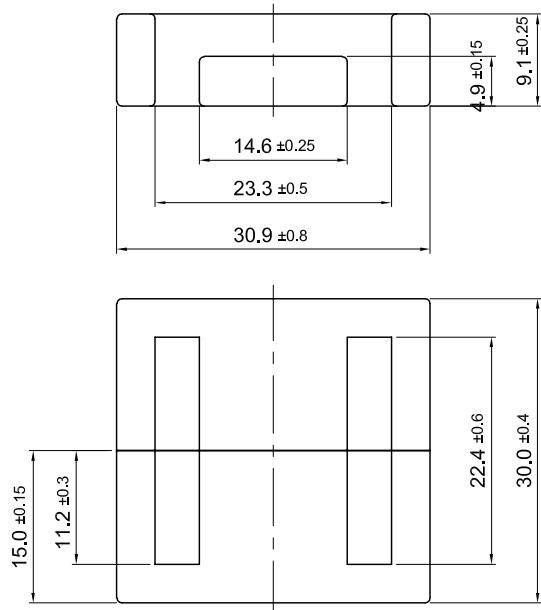
Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

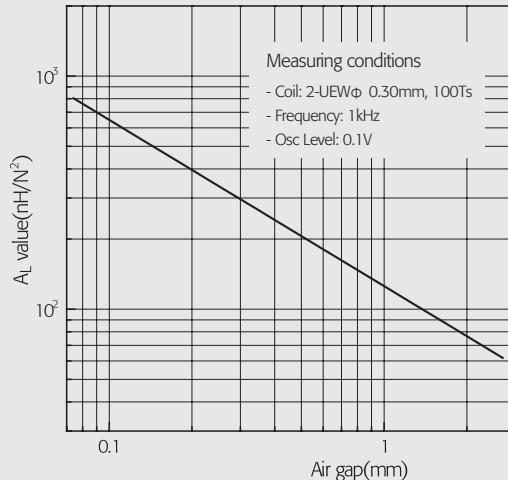


Material	A_L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	3020 ± 25%	1800	0.00	3.75	PL-7 EFD3033V
	940 ± 10%	560	0.10		PL-7 EFD3033V AL940
	275 ± 5%	160	0.50		PL-7 EFD3033V AL275
	160 ± 3%	100	1.00		PL-7 EFD3033V AL160
PL-9	3775 ± 25%	2250	0.00	3.50 (80°C)	PL-9 EFD3033V
PL-11	3100 ± 25%	1850	0.00	3.50	PL-11 EFD3033V

EFD3130S



Parameter	Symbol	Value	Unit
Core constant	C1	0.990	mm ⁻¹
Effective path length	le	68.2	mm
Effective area	Ae	69.1	mm ²
Effective volume	Ve	4712	mm ³
Center leg area	Ac	71.5	mm ²
Winding area	Aw	97.4	mm ²
Weight of set	W	27	g

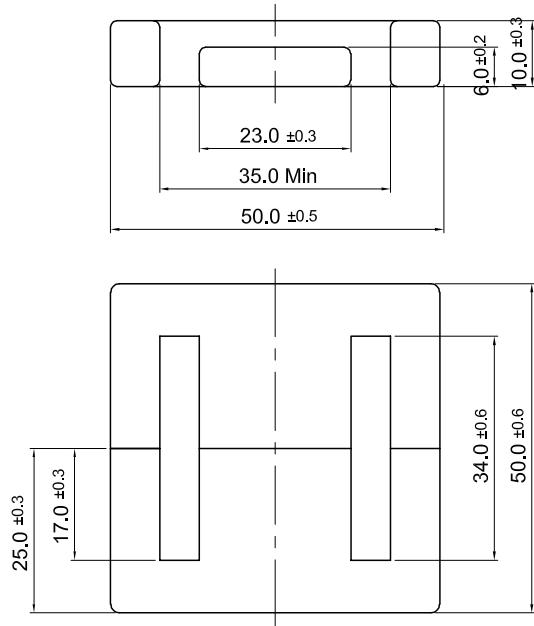
Air gap vs. A_L value for EFD3130S (Typical)

Calculated Output Power		(Unit : W)			
Circuit type		Switching Frequency			
		20kHz	50kHz	100kHz	250kHz
Push-pull converter		57	93	129	251
Flyback converter		19	31	43	84
Forward converter		29	47	65	126

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.
2) Temperature rise should be considered for design before choosing the final core size.

Material	A _L -value (nH/N ²)	μe	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	1800 ± 25%	1420	0.00	2.60	PL-7 EFD3130S
	645 ± 10%	510	0.10		PL-7 EFD3130S AL645
	210 ± 5%	170	0.50		PL-7 EFD3130S AL210
	125 ± 3%	100	1.00		PL-7 EFD3130S AL125
PL-9	2400 ± 25%	1890	0.00	2.36 (80°C)	PL-9 EFD3130S
PL-11	1900 ± 25%	1500	0.00	2.36	PL-11 EFD3130S

EFD5050S

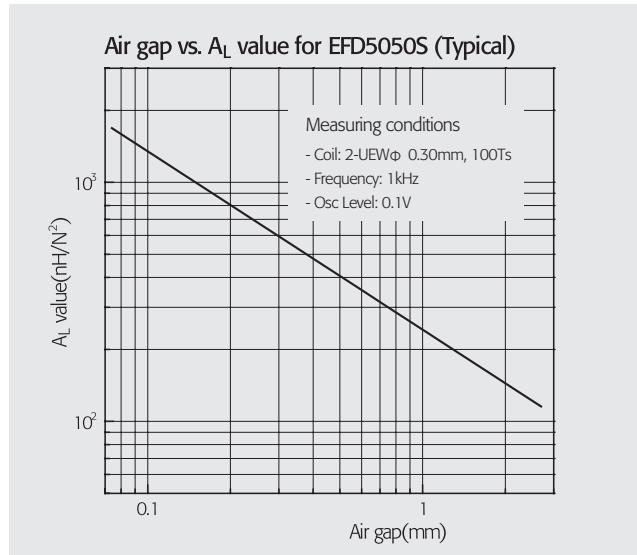


Parameter	Symbol	Value	Unit
Core constant	C1	0.680	mm ¹
Effective path length	le	103.3	mm
Effective area	Ae	151.5	mm ²
Effective volume	Ve	15463	mm ³
Center leg area	Ac	138.0	mm ²
Winding area	Aw	221.0	mm ²
Weight of set	W	90	g

Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	285	464	642	1249
Flyback converter	95	155	214	416
Forward converter	143	232	321	624

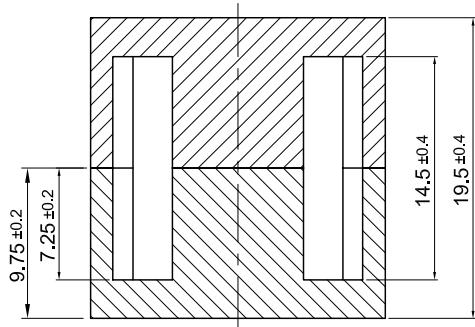
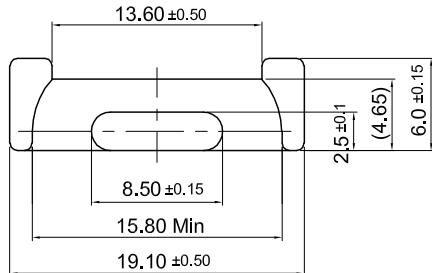
Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

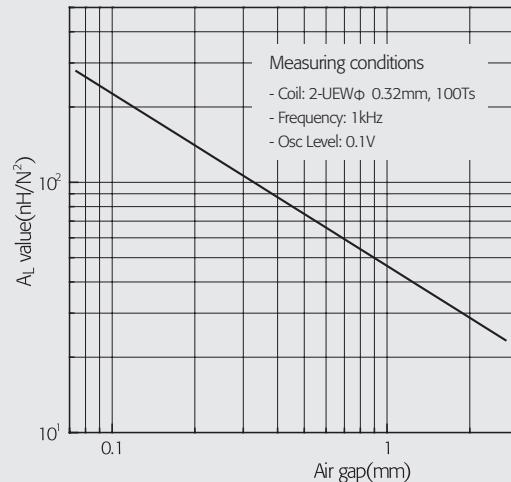


Material	A_L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	3100 ± 25%	1680	0.00	10.00	PL-7 EFD5050S
	1370 ± 10%	740	0.10		PL-7 EFD5050S AL1370
	395 ± 5%	210	0.50		PL-7 EFD5050S AL395
	240 ± 3%	130	1.00		PL-7 EFD5050S AL240
PL-9	3900 ± 25%	2110	0.00	8.00 (80°C)	PL-9 EFD5050S
PL-11	3200 ± 25%	1730	0.00	8.00	PL-11 EFD5050S

EPC1920S



Parameter	Symbol	Value	Unit
Core constant	C1	2.030	mm ⁻¹
Effective path length	le	46.1	mm
Effective area	Ae	22.7	mm ²
Effective volume	Ve	1047	mm ³
Center leg area	Ac	20.0	mm ²
Winding area	Aw	54.4	mm ²
Weight of set	W	5.4	g

Air gap vs. A_L value for EPC1920S (Typical)

Calculated Output Power

(Unit : W)

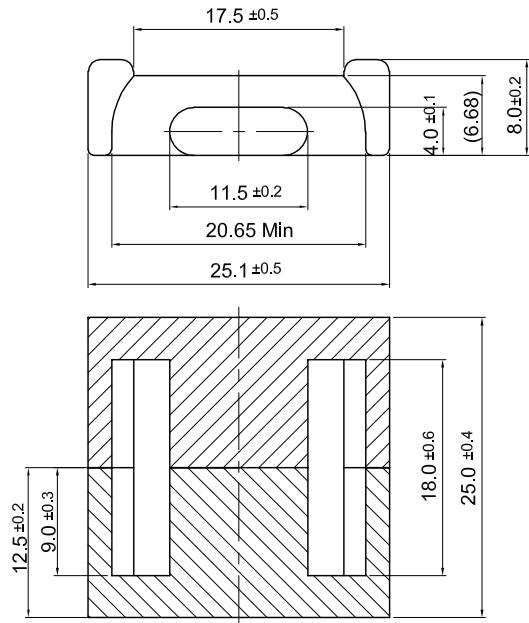
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	11	17	24	46
Flyback converter	4	6	8	15
Forward converter	5	9	12	23

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

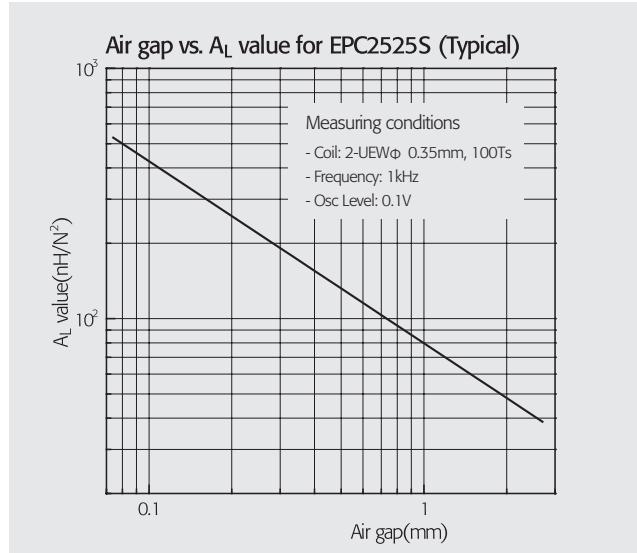
2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	1090 ± 25%	1760	0.00	0.63	PL-7 EPC1920S
	230 ± 10%	370	0.10		PL-7 EPC1920S AL230
	74 ± 5%	120	0.50		PL-7 EPC1920S AL74
	46 ± 3%	74	1.00		PL-7 EPC1920S AL46
PL-9	1360 ± 25%	2200	0.00	0.52 (80°C)	PL-9 EPC1920S
PL-11	1100 ± 25%	1780	0.00	0.52	PL-11 EPC1920S

EPC2525S



Parameter	Symbol	Value	Unit
Core constant	C1	1.270	mm ¹
Effective path length	le	59.2	mm
Effective area	Ae	46.4	mm ²
Effective volume	Ve	2747	mm ³
Center leg area	Ac	42.6	mm ²
Winding area	Aw	90.3	mm ²
Weight of set	W	13	g



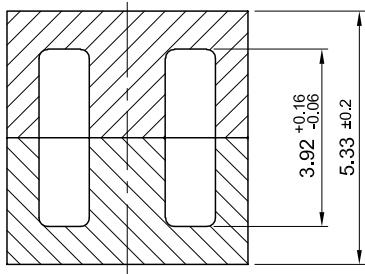
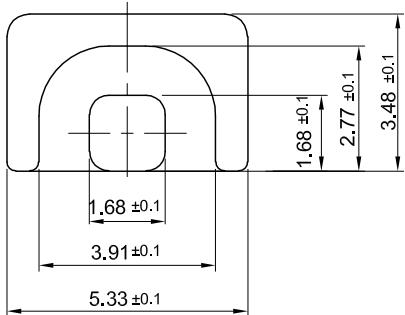
Calculated Output Power		(Unit : W)			
Circuit type		Switching Frequency			
		20kHz	50kHz	100kHz	250kHz
Push-pull converter		36	58	80	156
Flyback converter		12	19	27	52
Forward converter		18	29	40	78

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

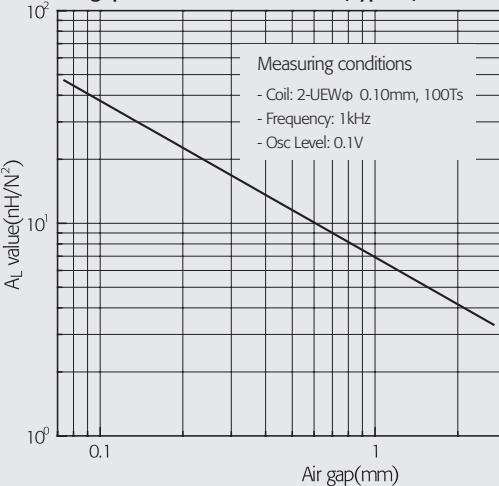
2) Temperature rise should be considered for design before choosing the final core size.

Material	A_L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	1600 ± 25%	1620	0.00	1.65	PL-7 EPC2525S
	420 ± 10%	420	0.10		PL-7 EPC2525S AL420
	130 ± 5%	130	0.50		PL-7 EPC2525S AL130
	80 ± 3%	80	1.00		PL-7 EPC2525S AL80
PL-9	2000 ± 25%	2020	0.00	1.37 (80°C)	PL-9 EPC2525S
PL-11	1700 ± 25%	1720	0.00	1.37	PL-11 EPC2525S

EP5D



Parameter	Symbol	Value	Unit
Core constant	C1	3.180	mm ⁻¹
Effective path length	le	11.4	mm
Effective area	Ae	3.6	mm ²
Effective volume	Ve	41	mm ³
Center leg area	Ac	2.7	mm ²
Winding area	Aw	4.2	mm ²
Weight of set	W	0.4	g

Air gap vs. A_L value for EP5D (Typical)

Calculated Output Power

(Unit : W)

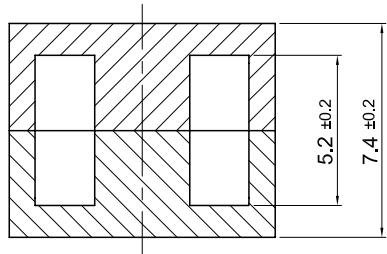
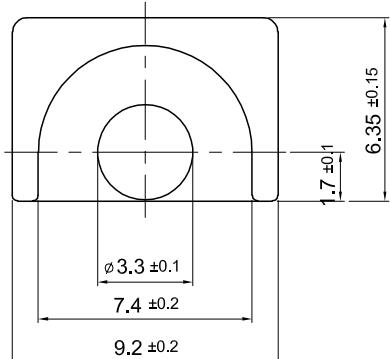
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	0.13	0.21	0.29	0.57
Flyback converter	0.04	0.07	0.10	0.19
Forward converter	0.06	0.11	0.15	0.28

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A _L -value (nH/N ²)	μe	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	550 ± 25%	1390	0.00	0.02	PL-7 EP5D
	36 ± 7%	90	0.10		PL-7 EP5D AL36
	13 ± 5%	33	0.50		PL-7 EP5D AL13
	7 ± 3%	20	1.00		PL-7 EP5D AL7
PL-9	690 ± 25%	1750	0.00	0.02 (80°C)	PL-9 EP5D
PL-11	570 ± 25%	1440	0.00	0.02	PL-11 EP5D
SM-23T	540 ± 25%	1370	0.00		SM-23T EP5D
SM-43T	1000 ± 25%	2530	0.00		SM-43T EP5D
ST-30B	690 ± 25%	1750	0.00		ST-30B EP5D
SM-100	2000 ± 30%	5060	0.00		SM-100 EP5D

EP7



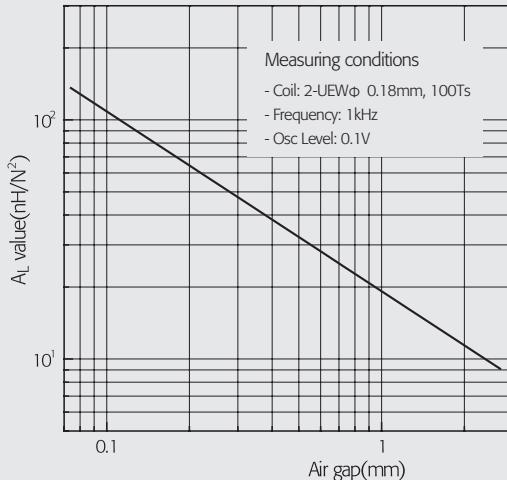
Parameter	Symbol	Value	Unit
Core constant	C1	1.520	mm ⁻¹
Effective path length	le	15.7	mm
Effective area	Ae	10.3	mm ²
Effective volume	Ve	162	mm ³
Center leg area	Ac	8.5	mm ²
Winding area	Aw	11.0	mm ²
Weight of set	W	1.4	g

Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	1	1.6	2	4
Flyback converter	0.3	0.5	0.7	1.4
Forward converter	0.5	0.8	1	2

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

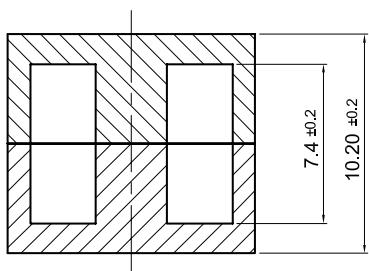
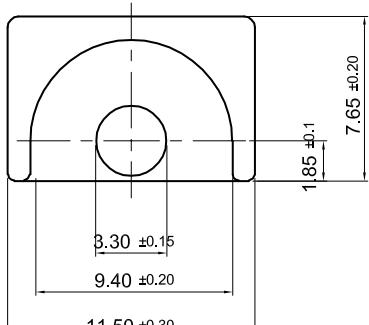
2) Temperature rise should be considered for design before choosing the final core size.

Air gap vs. A_L value for EP7 (Typical)



Material	A_L -value (nH/N ²)	μ_e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	1100 ± 25%	1330	0.00	0.09	PL-7 EP7
	107 ± 7%	130	0.10		PL-7 EP7 AL107
	33 ± 5%	40	0.50		PL-7 EP7 AL33
	20 ± 3%	20	1.00		PL-7 EP7 AL20
PL-9	1660 ± 25%	2010	0.00	0.07 (80°C)	PL-9 EP7
PL-11	1100 ± 25%	1330	0.00	0.07	PL-11 EP7
SM-23T	1100 ± 25%	1330	0.00		SM-23T EP7
SM-43T	2300 ± 25%	2780	0.00		SM-43T EP7
ST-30B	1530 ± 25%	1850	0.00		ST-30B EP7
SM-100	5200 ± 30%	6290	0.00		SM-100 EP7

EP10



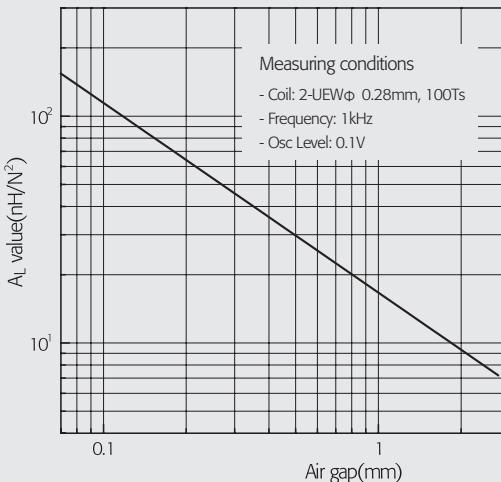
Parameter	Symbol	Value	Unit
Core constant	C1	1.700	mm ⁻¹
Effective path length	le	19.2	mm
Effective area	Ae	11.3	mm ²
Effective volume	Ve	217	mm ³
Center leg area	Ac	8.5	mm ²
Winding area	Aw	23.0	mm ²
Weight of set	W	2.8	g

Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	2	4	5	10
Flyback converter	1	1	2	3
Forward converter	1	2	2	5

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

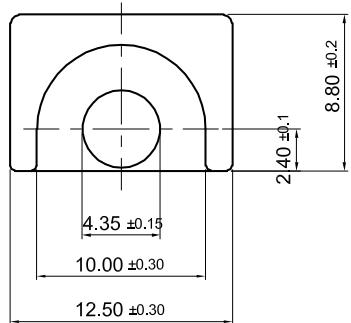
2) Temperature rise should be considered for design before choosing the final core size.

Air gap vs. A_L value for EP10 (Typical)

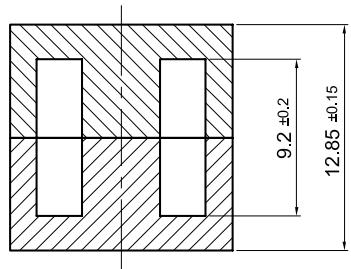


Material	A _L -value (nH/N ²)	μe	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	1100 ± 25%	1490	0.00	0.11	PL-7 EP10
	120 ± 7%	160	0.10		PL-7 EP10 AL120
	30 ± 5%	40	0.50		PL-7 EP10 AL30
	16 ± 3%	22	1.00		PL-7 EP10 AL16
PL-9	1530 ± 25%	2070	0.00	0.10 (80°C)	PL-9 EP10
PL-11	1100 ± 25%	1490	0.00	0.10	PL-11 EP10
SM-23T	1100 ± 25%	1490	0.00		SM-23T EP10
SM-43T	2200 ± 25%	2980	0.00		SM-43T EP10
ST-30B	1530 ± 25%	2070	0.00		ST-30B EP10
SM-100	4800 ± 30%	6490	0.00		SM-100 EP10

EP13



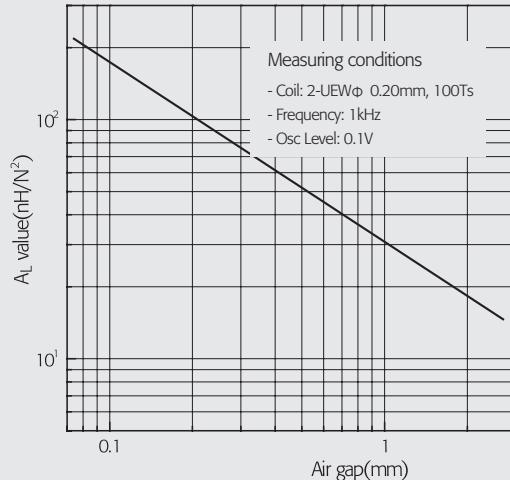
Parameter	Symbol	Value	Unit
Core constant	C1	1.240	mm ⁻¹
Effective path length	le	24.2	mm
Effective area	Ae	19.5	mm ²
Effective volume	Ve	472	mm ³
Center leg area	Ac	14.9	mm ²
Winding area	Aw	26.0	mm ²
Weight of set	W	5.1	g



Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	4	7	10	19
Flyback converter	1	2	3	6
Forward converter	2	4	5	9

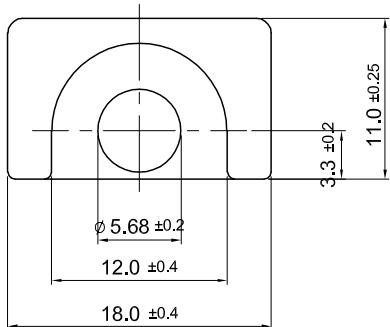
Note : 1) Core loss is assumed to be approx. 0.1W/cm³.
2) Temperature rise should be considered for design before choosing the final core size.

Air gap vs. A_L value for EP13 (Typical)

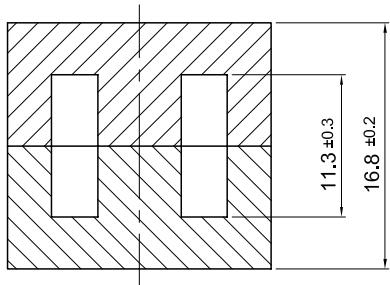


Material	A _L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	1600 ± 25%	1580	0.00	0.24	PL-7 EP13
	177 ± 7%	175	0.10		PL-7 EP13 AL177
	53 ± 5%	50	0.50		PL-7 EP13 AL53
	31 ± 3%	30	1.00		PL-7 EP13 AL31
PL-9	2100 ± 25%	2070	0.00	0.21 (80°C)	PL-9 EP13
PL-11	1700 ± 25%	1680	0.00	0.21	PL-11 EP13
SM-23T	1400 ± 25%	1380	0.00		SM-23T EP13
SM-43T	3000 ± 25%	2960	0.00		SM-43T EP13
ST-30B	2100 ± 25%	2070	0.00		ST-30B EP13
SM-100	7000 ± 30%	6910	0.00		SM-100 EP13

EP17

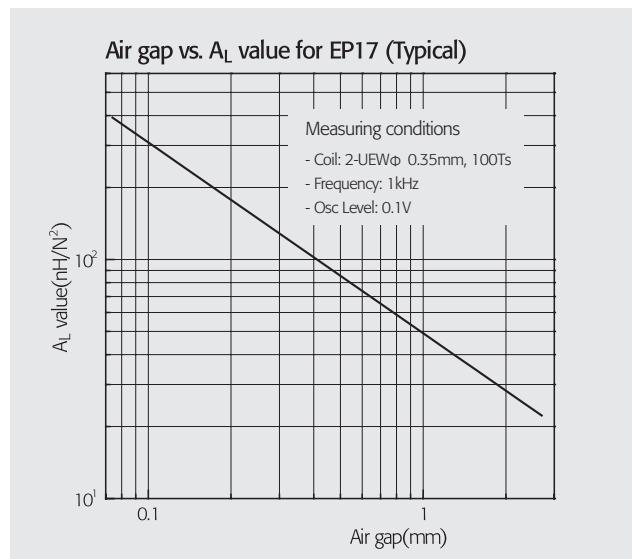


Parameter	Symbol	Value	Unit
Core constant	C1	0.840	mm ⁻¹
Effective path length	le	28.5	mm
Effective area	Ae	33.9	mm ²
Effective volume	Ve	966	mm ³
Center leg area	Ac	25.3	mm ²
Winding area	Aw	36.0	mm ²
Weight of set	W	12	g



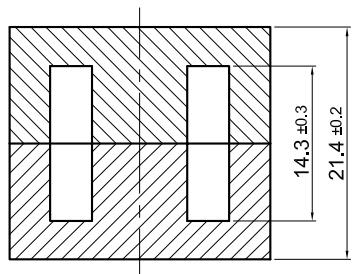
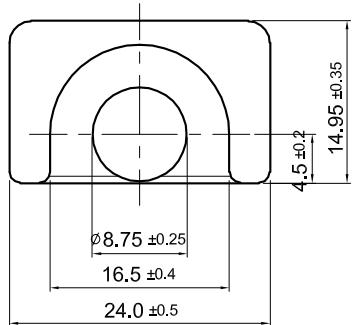
Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	10	17	23	46
Flyback converter	3	6	8	15
Forward converter	5	8	12	23

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.
2) Temperature rise should be considered for design before choosing the final core size.



Material	A_L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	2400 ± 25%	1600	0.00	0.49	PL-7 EP17
	310 ± 7%	210	0.10		PL-7 EP17 AL310
	84 ± 5%	55	0.50		PL-7 EP17 AL84
	49 ± 3%	33	1.00		PL-7 EP17 AL49
PL-9	3000 ± 25%	2000	0.00	0.43 (80°C)	PL-9 EP17
PL-11	2500 ± 25%	1670	0.00	0.43	PL-11 EP17
SM-23T	2400 ± 25%	1600	0.00		SM-23T EP17
SM-43T	4500 ± 25%	3010	0.00		SM-43T EP17
ST-30B	3340 ± 25%	2230	0.00		ST-30B EP17
SM-100	10800 ± 30%	7220	0.00		SM-100 EP17

EP20

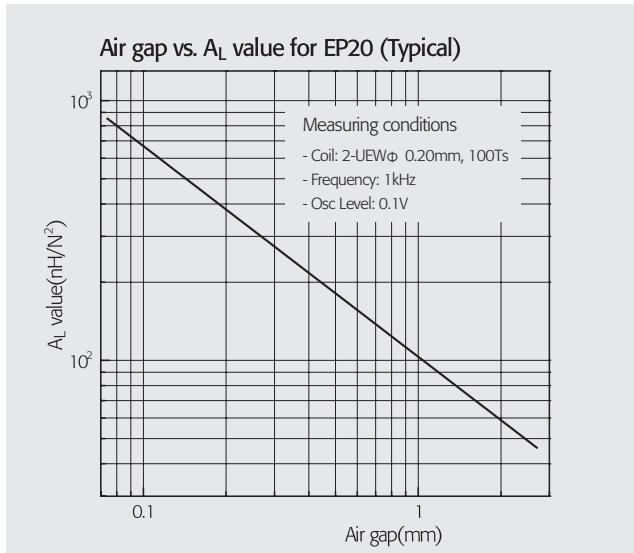


Parameter	Symbol	Value	Unit
Core constant	C1	0.510	mm ⁻¹
Effective path length	le	39.8	mm
Effective area	Ae	78.0	mm ²
Effective volume	Ve	3120	mm ³
Center leg area	Ac	60.1	mm ²
Winding area	Aw	55.0	mm ²
Weight of set	W	28	g

Calculated Output Power (Unit : W)				
Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	37	59	82	160
Flyback converter	12	20	27	53
Forward converter	18	30	41	80

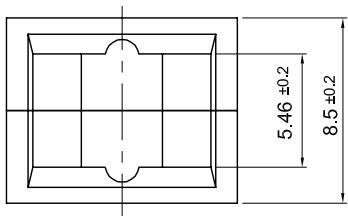
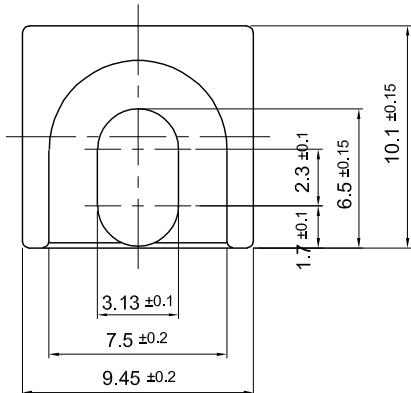
Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

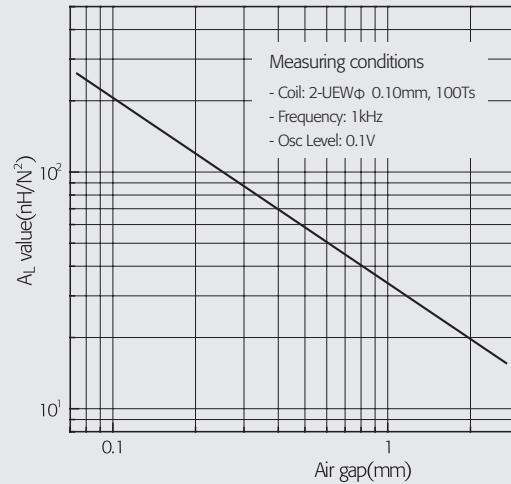


Material	A_L -value (nH/N ²)	μ e	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	4000 ± 25%	1620	0.00	1.56	PL-7 EP20
	680 ± 7%	280	0.10		PL-7 EP20 AL680
	180 ± 5%	70	0.50		PL-7 EP20 AL180
	103 ± 3%	42	1.00		PL-7 EP20 AL103
PL-9	5020 ± 25%	2040	0.00	1.40 (80°C)	PL-9 EP20
PL-11	4200 ± 25%	1700	0.00	1.40	PL-11 EP20
SM-23T	3500 ± 25%	1420	0.00		SM-23T EP20
SM-43T	6900 ± 25%	2800	0.00		SM-43T EP20
ST-30B	4870 ± 25%	1980	0.00		ST-30B EP20
SM-100	18700 ± 30%	7590	0.00		SM-100 EP20

EOP9.5



Parameter	Symbol	Value	Unit
Core constant	C1	0.820	mm ⁻¹
Effective path length	le	19.5	mm
Effective area	Ae	23.8	mm ²
Effective volume	Ve	464	mm ³
Center leg area	Ac	18.2	mm ²
Winding area	Aw	18.5	mm ²
Weight of set	W	2.8	g

Air gap vs. A_L value for EOP9.5 (Typical)

Calculated Output Power

(Unit : W)

Circuit type	Switching Frequency			
	20kHz	50kHz	100kHz	250kHz
Push-pull converter	4	6	8	16
Flyback converter	1	2	3	5
Forward converter	2	3	4	8

Note : 1) Core loss is assumed to be approx. 0.1W/cm³.

2) Temperature rise should be considered for design before choosing the final core size.

Material	A _L -value (nH/N ²)	μe	Air gap (mm)	Core loss (W max.) 100kHz, 200mT, 100°C	Ordering code
PL-7	2400 ± 25%	1570	0.00	0.26	PL-7 EOP9.5
	200 ± 7%	130	0.10		PL-7 EOP9.5 AL200
	60 ± 5%	40	0.50		PL-7 EOP9.5 AL60
	35 ± 3%	20	1.00		PL-7 EOP9.5 AL35
PL-9	3100 ± 25%	2020	0.00	0.23 (80°C)	PL-9 EOP9.5
PL-11	2500 ± 25%	1630	0.00	0.23	PL-11 EOP9.5
SM-23T	2300 ± 25%	1500	0.00		SM-23T EOP9.5
SM-43T	3600 ± 25%	2350	0.00		SM-43T EOP9.5
ST-30B	2800 ± 25%	1830	0.00		ST-30B EOP9.5
SM-100	7500 ± 30%	4890	0.00		SM-100 EOP9.5

Part No. Index

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AR6x20	98	EE1313S	19	EE5040S	27		
AR6x25	98	EE1612S	19	EE5555A	27	143	
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AR6.5x12.4	98	EE1616S	19	EE5747S	28	145	
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		EE2020S	21	EED2924S	43		
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AP40x8x2	99	EE2218S	21	EED4244S	44		
AP41x41x9.5	99	EE2219S	21				
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AP80x12x5	99	EE2229S	21	EER1104S	32		
AP100x12x5	99	EE2329S	21	EER1105S	32	158	
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		EE2519S	22	EER2116S	33		
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		EE2525F	23	EER2616S	33		
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DS2611	54	EE2722S	23	EER2834N	34	162	
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			EE3030S	25	EER3335S	35	

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EER3543S	37	169	EFD2124L	65		EPC1313S	67	
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