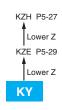
MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS



- Newly innovative electrolyte is employed to minimize ESR
- Endurance with ripple current: 4,000 to 10,000 hours at 105°C
- Non solvent resistant type
- RoHS2 Compliant



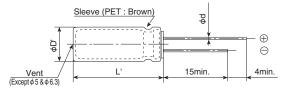


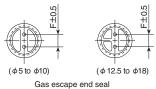
SPECIFICATIONS

Items	Characteristics												
Category Temperature Range	-40 to +105°C												
Rated Voltage Range	6.3 to 1	6.3 to 100V _{dc}											
Capacitance Tolerance	±20% (±20% (M) (at 20℃, 120Hz)											
Leakage Current	I=0.01CV or 3μA, whichever is greater. Where, I: Max. leakage current (μA), C: Nominal capacitance (μF), V: Rated voltage (V) (at 20°C after $^{\prime}$										(at 20°C after 2 minutes)		
Dissipation Factor	Rated v	6.3V	10V	16V	25V	35V	50V	63V	80V	100V			
(tan δ)	tanδ (N	Лах.)	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.09	0.08		
	When n	ominal capacitano	ce exce	eds 1,	000μF,	add 0	.02 to t	he valu	e abov	e for e	ach 1,0	000μF increase.	(at 20°C, 120Hz)
Low Temperature	Rated v	6.3V	10V	16V	25V	35V	50V	63V	80V	100V			
Characteristics	Z(-25℃	4	3	2	2	2	2	2	2	2			
(Max. Impedance Ratio)	Z(-40°C	8	6	4	3	3	3	3	3	3		(at 120Hz)	
Endurance												after subjected to ecified period of time	DC voltage with the rated e at 105℃.
	T:	6.3 to 10V _{dc}	φ 5 & 6.3 : 4,000hours φ 8 & 10 : 6,000hours φ 12.5 to 18 : 8,000hours]	
	Time	16 to 100V _{dc}	φ 5 & 6.3 : 5,000hours φ 8 & 10 : 7,000hours φ 12.5 to 18 : 10,000hours										
	Capacit	≦±25% of the initial value											
	D.F. (tai	≦200% of the initial specified value											
	Leakage	e current	≦The initial specified value										1
Shelf Life		0 1	s shall be satisfied when the capacitors are restored to 20°C after exposing them for the measurement, the capacitor shall be preconditioned by applying voltage according to										
	Capacit	ance change	≤±25% of the initial value										
	D.F. (tai	n δ)	≦20	0% of t	he initi	al spec	ified va	alue					
	Leakage	e current	≦Th	e initia	l specif	ied val	ue						

◆DIMENSIONS [mm]

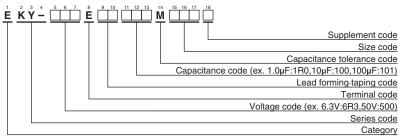
●Terminal Code : E





φD	5	6.3	8	10	12.5	16	18			
φd	0.5	0.5	0.6	0.6	0.6	0.8	0.8			
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5			
φD'	φD+0.5max.									
Ţ	L+1.5max.									

◆PART NUMBERING SYSTEM



Please refer to "Product code guide (radial lead type)"





STANDARD RATINGS

wv	Сар	Case size	Imped (Ω max.	dance /100kHz)	Rated ripple current	Part No.	wv	Сар	Case size		dance /100kHz)	Rated ripple current	Part No.
(V _{dc})		φD×L(mm)	20℃	-10℃	(mArms/ 105°C, 100kHz)		(V _{dc})	/	φD×L(mm)	20℃	-10℃	(mArms/ 105°C, 100kHz)	
	150	5×11	0.58	2.3	210	EKY-6R3E 151ME11D		1,500	12.5×20	0.035	0.12	1,900	EKY-160E 152MK20S
	330 680	6.3×11	0.22	0.87	340 640	EKY-6R3E 331MF11D		1,500	16×15	0.042	0.12	1,940 2,230	EKY-160E 152ML15S
	820	8×11.5 10×12.5	0.080	0.52	865	EKY-6R3E□□681MHB5D EKY-6R3E□□821MJC5S		2,200	12.5×25 18×15	0.027	0.009	2,210	EKY-160E □ □ 222MK25S EKY-160E □ □ 222MM15S
	1,000	8×15	0.087	0.35	840	EKY-6R3E 102MH15D		2,700	12.5×30	0.043	0.078	2,650	EKY-160E 272MK30S
i	1,200	8×20	0.069	0.27	1,050	EKY-6R3E 122MH20D		2,700	16×20	0.027	0.078	2,530	EKY-160E 272ML20S
	1,200	10×16	0.060	0.24	1,210	EKY-6R3E□□122MJ16S		3,300	12.5×35	0.020	0.065	2,880	EKY-160E□□332MK35S
	1,500	10×20	0.046	0.18	1,400	EKY-6R3E□□152MJ20S		3,900	12.5×40	0.017	0.056	3,350	EKY-160E □ □ 392MK40S
	1,800	12.5×15	0.049	0.16	1,450	EKY-6R3E 182MK15S	16	3,900	16×25	0.021	0.060	2,930	EKY-160E□□392ML25S
	2,200	10×25	0.042	0.17	1,650	EKY-6R3E 222MJ25S		3,900	18×20	0.026	0.067	2,860	EKY-160E 392MM20S
	2,700 2,700	10×30 16×15	0.031	0.12	1,910 1,940	EKY-6R3E□□272MJ30S EKY-6R3E□□272ML15S	}	4,700 4,700	16×31.5 18×25	0.017	0.050	3,450 3,140	EKY-160E□□472MLN3S EKY-160E□□472MM25S
	3,300	12.5×20	0.042	0.12	1,900	EKY-6R3E 332MK20S		5,600	16×35.5	0.015	0.049	3,610	EKY-160E 562MLP1S
	3,900	12.5×25	0.027	0.089	2,230	EKY-6R3E 392MK25S		5,600	18×31.5	0.015	0.040	4,170	EKY-160E 562MMN3S
6.3	3,900	18×15	0.043	0.11	2,210	EKY-6R3E□□392MM15S	İ	6,800	16×40	0.013	0.038	4,080	EKY-160E □ □ 682ML40S
	4,700	12.5×30	0.024	0.078	2,650	EKY-6R3E□□472MK30S		8,200	18×35.5	0.014	0.038	4,220	EKY-160E□□822MMP1S
	5,600	12.5×35	0.020	0.065	2,880	EKY-6R3E 562MK35S		10,000	18×40	0.012	0.032	4,280	EKY-160E 103MM40S
	5,600	16×20	0.027	0.078	2,530	EKY-6R3E 562ML20S		47	5×11	0.58	2.3	210 340	EKY-250E 470ME11D
	6,800 6,800	12.5×40 16×25	0.017	0.056	3,350 2,930	EKY-6R3E□□682MK40S EKY-6R3E□□682ML25S		100 220	6.3×11 8×11.5	0.22	0.87 0.52	640	EKY-250E□□101MF11D EKY-250E□□221MHB5D
	6,800	18×20	0.021	0.067	2,860	EKY-6R3E 682MM20S	25	330	8×15	0.13	0.35	840	EKY-250E □ □ 331MH15D
i i	8,200	16×31.5	0.017	0.050	3,450	EKY-6R3E□□822MLN3S		330	10×12.5	0.080	0.32	865	EKY-250E□□331MJC5S
	10,000	16×35.5	0.015	0.044	3,610	EKY-6R3E□□103MLP1S		470	8×20	0.069	0.27	1,050	EKY-250E□□471MH20D
	10,000	18×25	0.019	0.049	3,140	EKY-6R3E□□103MM25S		470	10×16	0.060	0.24	1,210	EKY-250E□□471MJ16S
	12,000	16×40	0.013	0.038	4,080	EKY-6R3E 123ML40S		680	10×20	0.046	0.18	1,400	EKY-250E 681MJ20S
	12,000	18×31.5	0.015	0.040	4,170	EKY-6R3E 123MMN3S		680	12.5×15	0.049	0.16	1,450	EKY-250E G81MK15S
	15,000 18,000	18×35.5 18×40	0.014	0.038	4,220 4,280	EKY-6R3E 153MMP1S EKY-6R3E 183MM40S		1,000	10×25 10×30	0.042	0.17 0.12	1,650 1,910	EKY-250E□□821MJ25S EKY-250E□□102MJ30S
\vdash	100	5×11	0.58	2.3	210	EKY-100E 101ME11D		1,000	12.5×20	0.035	0.12	1,900	EKY-250E 102MK20S
i	220	6.3×11	0.22	0.87	340	EKY-100E □ □ 221MF11D		1,000	16×15	0.042	0.12	1,940	EKY-250E □ □ 102ML15S
	470	8×11.5	0.13	0.52	640	EKY-100E□□471MHB5D		1,200	18×15	0.043	0.11	2,210	EKY-250E□□122MM15S
	680	8×15	0.087	0.35	840	EKY-100E 681MH15D		1,500	12.5×25	0.027	0.089	2,230	EKY-250E 152MK25S
	1,000	10×12.5 8×20	0.080	0.32	865 1,050	EKY-100E □ □ 681MJC5S EKY-100E □ □ 102MH20D		1,800 1,800	12.5×30	0.024	0.078	2,650 2,530	EKY-250E□□182MK30S EKY-250E□□182ML20S
	1,000	10×16	0.069	0.27	1,210	EKY-100E 102MJ16S		2,200	16×20 12.5×35	0.027	0.078	2,880	EKY-250E 222MK35S
	1,200	10×10	0.046	0.18	1,400	EKY-100E 122MJ20S		2,200	18×20	0.026	0.067	2,860	EKY-250E 222MM20S
i i	1,500	10×25	0.042	0.17	1,650	EKY-100E □ □ 152MJ25S		2,700	12.5×40	0.017	0.056	3,350	EKY-250E □ □ 272MK40S
	1,500	12.5×15	0.049	0.16	1,450	EKY-100E□□152MK15S		2,700	16×25	0.021	0.060	2,930	EKY-250E□□272ML25S
	2,200	10×30	0.031	0.12	1,910	EKY-100E□□222MJ30S		3,300	16×31.5	0.017	0.050	3,450	EKY-250E□□332MLN3S
	2,200	12.5×20	0.035	0.12	1,900 1,940	EKY-100E 222MK20S		3,300	18×25	0.019	0.049	3,140 3,610	EKY-250E □ □ 332MM25S EKY-250E □ □ 392MLP1S
	2,200 2,700	16×15 18×15	0.042	0.12	2,210	EKY-100E □ □ 222ML15S EKY-100E □ □ 272MM15S		3,900	16×35.5 18×31.5	0.015	0.044	4,170	EKY-250E 392MMN3S
10	3,300	12.5×25	0.027	0.089	2,230	EKY-100E□□332MK25S		4,700	16×40	0.013	0.038	4,080	EKY-250E 472ML40S
i i	3,900	12.5×30	0.024	0.078	2,650	EKY-100E □ □ 392MK30S		4,700	18×35.5	0.014	0.038	4,220	EKY-250E□□472MMP1S
	3,900	16×20		0.078	2,530	EKY-100E□□392ML20S		5,600	18×40	0.012	0.032	4,280	EKY-250E□□562MM40S
	4,700	12.5×35	0.020		2,880	EKY-100E 472MK35S		33	5×11	0.58	2.3	210	EKY-350E 330ME11D
	5,600 5,600	12.5×40 16×25	0.017		3,350 2,930	EKY-100E□□562MK40S EKY-100E□□562ML25S		56 150	6.3×11 8×11.5	0.22	0.87 0.52	340 640	EKY-350E□□560MF11D EKY-350E□□151MHB5D
	5,600	18×20	0.021	0.060	2,860	EKY-100E 562MM20S		220	8×15	0.13	0.35	840	EKY-350E 221MH15D
	6,800	16×31.5	0.017	0.050	3,450	EKY-100E 682MLN3S		220	10×12.5	0.080	0.32	865	EKY-350E 221MJC5S
i i	6,800	18×25	0.019		3,140	EKY-100E □ □ 682MM25S	İ	270	8×20	0.069	0.27	1,050	EKY-350E □ □ 271MH20D
	8,200	16×35.5	0.015		3,610	EKY-100E□□822MLP1S		330	10×16	0.060	0.24	1,210	EKY-350E□□331MJ16S
	8,200	18×31.5	0.015		4,170	EKY-100E B22MMN3S		470	10×20	0.046	0.18	1,400	EKY-350E 471MJ20S
	10,000	16×40	0.013		4,080	EKY-100E 103ML40S		470	12.5×15	0.049	0.16	1,450	EKY-350E 471MK15S
	10,000 12,000	18×35.5 18×40	0.014		4,220 4,280	EKY-100E□□103MMP1S EKY-100E□□123MM40S		560 680	10×25 10×30	0.042	0.17 0.12	1,650 1,910	EKY-350E□□561MJ25S EKY-350E□□681MJ30S
\vdash	56	5×11	0.012	2.3	210	EKY-160E 560ME11D	35	680	12.5×20	0.031	0.12	1,900	EKY-350E 681MK20S
	120	6.3×11	0.22	0.87	340	EKY-160E 121MF11D		680	16×15	0.042	0.12	1,940	EKY-350E 681ML15S
	330	8×11.5	0.13	0.52	640	EKY-160E□□331MHB5D		1,000	12.5×25	0.027	0.089	2,230	EKY-350E□□102MK25S
	470	8×15	0.087	0.35	840	EKY-160E 471MH15D		1,000	18×15	0.043	0.11	2,210	EKY-350E 102MM15S
10	470	10×12.5	0.080		865	EKY-160E 471MJC5S		1,200	12.5×30	0.024	0.078	2,650	EKY-350E□□122MK30S
16	680 680	8×20 10×16	0.069		1,050 1,210	EKY-160E□□681MH20D EKY-160E□□681MJ16S		1,200 1,500	16×20 12.5×35	0.027	0.078	2,530 2,880	EKY-350E□□122ML20S EKY-350E□□152MK35S
	1,000	10×16	0.060		1,400	EKY-160E 102MJ20S		1,800	12.5×35 12.5×40	0.020	0.056	3,350	EKY-350E 152MK40S
	1,000	12.5×15	0.049	0.16	1,450	EKY-160E 102MK15S		1,800	16×25	0.021	0.060	2,930	EKY-350E 182ML25S
	1,200	10×25	0.042		1,650	EKY-160E□□122MJ25S		1,800	18×20	0.026	0.067	2,860	EKY-350E□□182MM20S
	1,500	10×30	0.031	0.12	1,910	EKY-160E□□152MJ30S		2,200	16×31.5	0.017	0.050	3,450	EKY-350E□□222MLN3S

 $\square\,\square$: Enter the appropriate lead forming or taping code.





STANDARD RATINGS

_	VSTANDAND NATINGS												
wv	Сар	Case size φD×L(mm)	Impedance (Ω max./100kHz)		Rated ripple current	Part No.		Сар	Case size	Impedance (Ω max./100kHz)		Rated ripple current	Part No.
(V _{dc})	(μ F)		20℃	-10℃	(mArms/ 105°C, 100kHz)	Fait No.	(V _{dc})	(μF)	φD×L(mm)	20℃	-10℃	(mArms/ 105℃, 100kHz)	r art No.
	2,200	18×25	0.019	0.049	3,140	EKY-350E□□222MM25S		680	16×25	0.025	0.075	2,600	EKY-630E□□681ML25S
	2,700	16×35.5	0.015	0.044	3,610	EKY-350E□□272MLP1S		680	18×20	0.030	0.090	2,500	EKY-630E□□681MM20S
35	2,700	18×31.5	0.015	0.040	4,170	EKY-350E□□272MMN3S		820	16×31.5	0.021	0.063	2,850	EKY-630E□□821MLN3S
33	3,300	16×40	0.013	0.038	4,080	EKY-350E□□332ML40S		820	18×25	0.024	0.072	2,800	EKY-630E□□821MM25S
	3,300	18×35.5	0.014	0.038	4,220	EKY-350E□□332MMP1S	63	1,000	16×35.5	0.019	0.057	2,900	EKY-630E□□102MLP1S
	3,900	18×40	0.012	0.032	4,280	EKY-350E□□392MM40S		1,200	16×40	0.018	0.054	3,400	EKY-630E□□122ML40S
	1.0	5×11	4.0	16.0	30	EKY-500E□□1R0ME11D		1,200	18×31.5	0.020	0.060	3,300	EKY-630E□□122MMN3S
	2.2	5×11	2.5	10.0	43	EKY-500E□□2R2ME11D		1,500	18×35.5	0.018	0.054	3,400	EKY-630E□□152MMP1S
	3.3	5×11	2.2	8.8	53	EKY-500E□□3R3ME11D		1,800	18×40	0.017	0.051	3,500	EKY-630E□□182MM40S
	4.7	5×11	1.9	7.6	88	EKY-500E□□4R7ME11D		68	10×12.5	0.17	0.66	480	EKY-800E□□680MJC5S
	10	5×11	1.5	6.0	100	EKY-500E□□100ME11D		100	10×16	0.11	0.47	600	EKY-800E□□101MJ16S
	22	5×11	0.70	2.8	180	EKY-500E□□220ME11D	80	120	10×20	0.084	0.34	800	EKY-800E□□121MJ20S
	56	6.3×11	0.30	1.2	295	EKY-500E□□560MF11D		150	10×25	0.069	0.28	900	EKY-800E□□151MJ25S
	100	8×11.5	0.17	0.68	555	EKY-500E□□101MHB5D		150	12.5×16	0.11	0.34	750	EKY-800E□□151MK16S
	120	8×15	0.12	0.48	730	EKY-500E □ □ 121MH15D		220	12.5×20	0.062	0.18	1,100	EKY-800E□□221MK20S
	150	10×12.5	0.12	0.48	760	EKY-500E□□151MJC5S		330	12.5×25	0.047	0.14	1,250	EKY-800E□□331MK25S
i i	180	8×20	0.091	0.36	910	EKY-500E □ □ 181MH20D		330	16×20	0.048	0.15	1,350	EKY-800E□□331ML20S
	220	10×16	0.084	0.34	1,050	EKY-500E□□221MJ16S		390	12.5×30	0.042	0.13	1,500	EKY-800E□□391MK30S
i i	270	10×20	0.060	0.24	1,220	EKY-500E □ □ 271MJ20S		470	12.5×35	0.036	0.11	1,650	EKY-800E□□471MK35S
i i	270	12.5×15	0.061	0.20	1,260	EKY-500E□□271MK15S		470	16×25	0.038	0.12	1,700	EKY-800E□□471ML25S
	330	10×25	0.055	0.22	1,440	EKY-500E □ □ 331MJ25S		470	18×20	0.045	0.14	1,500	EKY-800E□□471MM20S
	470	10×30	0.043	0.17	1,690	EKY-500E□□471MJ30S		560	12.5×40	0.032	0.095	1,800	EKY-800E□□561MK40S
50	470	12.5×20	0.045	0.15	1,660	EKY-500E □ □ 471MK20S		680	16×31.5	0.032	0.095	1,850	EKY-800E□□681MLN3S
i i	470	16×15	0.055	0.17	1,690	EKY-500E □ □ 471ML15S		680	18×25	0.036	0.11	1,750	EKY-800E □ □ 681MM25S
	560	12.5×25	0.034	0.11	1,950	EKY-500E□□561MK25S		820	16×35.5	0.029	0.086	2,000	EKY-800E□□821MLP1S
	560	18×15	0.054	0.15	1,930	EKY-500E □ □ 561MM15S		820	18×31.5	0.030	0.090	1,900	EKY-800E□□821MMN3S
	680	12.5×30	0.030	0.10	2,310	EKY-500E□□681MK30S		1,000	16×40	0.027	0.081	2,200	EKY-800E□□102ML40S
	820	12.5×35	0.025	0.083	2,510	EKY-500E □ □ 821MK35S		1,000	18×35.5	0.027	0.081	2,200	EKY-800E□□102MMP1S
	820	16×20	0.034	0.10	2,210	EKY-500E□□821ML20S		1,200	18×40	0.026	0.077	2,700	EKY-800E□□122MM40S
	1,000	12.5×40	0.021	0.069	2,920	EKY-500E □ □ 102MK40S		6.8	5×11	1.4	5.6	125	EKY-101E□□6R8ME11D
	1,000	16×25	0.025	0.075	2,555	EKY-500E□□102ML25S	ii i	15	6.3×11	0.57	2.3	205	EKY-101E□□150MF11D
	1,000	18×20	0.036	0.097	2,490	EKY-500E □ □ 102MM20S		27	8×11.5	0.36	1.4	355	EKY-101E□□270MHB5D
	1,200	16×31.5	0.022	0.066	3,010	EKY-500E□□122MLN3S	İ	39	8×15	0.25	1.0	450	EKY-101E□□390MH15D
	1,200	18×25	0.026	0.070	2,740	EKY-500E□□122MM25S		47	10×12.5	0.17	0.66	480	EKY-101E□□470MJC5S
	1,500	16×35.5	0.019	0.057	3,150	EKY-500E□□152MLP1S		56	8×20	0.19	0.76	565	EKY-101E□□560MH20D
	1,800	16×40	0.016	0.048	3,710	EKY-500E□□182ML40S		68	10×16	0.11	0.47	600	EKY-101E□□680MJ16S
	1,800	18×31.5	0.021	0.057	3,635	EKY-500E□□182MMN3S		82	10×20	0.084	0.34	800	EKY-101E□□820MJ20S
	2,200	18×35.5	0.017	0.046	3,680	EKY-500E□□222MMP1S		100	12.5×16	0.11	0.34	750	EKY-101E□□101MK16S
	2,700	18×40	0.014	0.038	3,800	EKY-500E □ □ 272MM40S		120	10×25	0.069	0.28	900	EKY-101E □ □ 121MJ25S
	15	5×11	0.88	3.5	165	EKY-630E□□150ME11D		150	12.5×20	0.062	0.18	1,100	EKY-101E □ □ 151MK20S
	33	6.3×11	0.35	1.4	265	EKY-630E□□330MF11D		220	12.5×25	0.047	0.14	1,250	EKY-101E □ □ 221MK25S
	56	8×11.5	0.22	0.88	500	EKY-630E□□560MHB5D	100	220	16×20	0.048	0.15	1,350	EKY-101E□□221ML20S
	82	8×15	0.16	0.64	665	EKY-630E□□820MH15D		270	12.5×30	0.042	0.13	1,500	EKY-101E□□271MK30S
	82	10×12.5	0.11	0.44	690	EKY-630E□□820MJC5S		330	12.5×35	0.036	0.11	1,650	EKY-101E □ □ 331MK35S
	120	8×20	0.12	0.48	820	EKY-630E□□121MH20D		330	16×25	0.038	0.12	1,700	EKY-101E□□331ML25S
	120	10×16	0.076	0.31	950	EKY-630E□□121MJ16S		330	18×20	0.045	0.14	1,500	EKY-101E□□331MM20S
63	180	10×20	0.056	0.23	1,150	EKY-630E□□181MJ20S		390	12.5×40	0.032	0.095	1,800	EKY-101E□□391MK40S
03	180	12.5×16	0.072	0.29	1,150	EKY-630E□□181MK16S		470	16×31.5	0.032	0.095	1,850	EKY-101E□□471MLN3S
	220	10×25	0.046	0.19	1,350	EKY-630E □ □ 221MJ25S		470	18×25	0.036	0.11	1,750	EKY-101E □ □ 471MM25S
	270	12.5×20	0.041	0.13	1,500	EKY-630E□□271MK20S		560	16×35.5		0.086	2,000	EKY-101E□□561MLP1S
	390	12.5×25	0.031	0.093	1,900	EKY-630E□□391MK25S		560	18×31.5	0.030	0.090	1,900	EKY-101E□□561MMN3S
	470	12.5×30	0.028	0.084	2,300	EKY-630E□□471MK30S		680	16×40	0.027	0.081	2,200	EKY-101E□□681ML40S
	470	16×20	0.032	0.096	2,000	EKY-630E □ 471ML20S		680	18×35.5	0.027	0.081	2,200	EKY-101E□□681MMP1S
	560	12.5×35	0.024	0.072	2,500	EKY-630E□□561MK35S		820	18×40	0.026	0.077	2,700	EKY-101E□□821MM40S
	680	12.5×40	0.021	0.063	2,800	EKY-630E□□681MK40S							

 $\square\,\square$: Enter the appropriate lead forming or taping code.

◆RATED RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Capacitance(µF) Frequency(Hz)	120	1k	10k	100k
1.0 to 180	0.40	0.75	0.90	1.00
220 to 560	0.50	0.85	0.94	1.00
680 to 1,800	0.60	0.87	0.95	1.00
2,200 to 3,900	0.75	0.90	0.95	1.00
4,700 to	0.85	0.95	0.98	1.00

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise.

When long life performance is required in actual use, the rms ripple current has to be reduced.