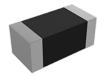
Multilayer Chip Ferrite Inductor - SDFL Series

Operating Temp. : -40°C~+85°C



FEATURES

- Monolithic structure for high reliability
- Compact size inductor possible
- No cross coupling due to magnetic shield
- Perfect shape for mounting with no directionality
- Excellent solderability and high heat resistance for reflow soldering or wave soldering

APPLICATIONS

SDFL

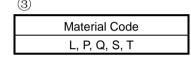
Widely use in Communications, Video and audio equipment, Computer, Remote control, etc.

PRODUCT IDENTIFICATION

1608

(1)	(2)					
1)						
Туре						
SDFL Chip Ferrite Inductor						
<u> </u>	l '					

(2)	
External Dimens	sions (L×W) (mm)
1005 [0402]	1.0×0.5
1608 [0603]	1.6×0.8
2012 [0805]	2.0×1.25
2216 [1206]	2 2 4 6



(6)

4	_					
Nominal Inductance						
Example	Nominal Value					
47N	0.047µH					
R10	0.1µH					
1R0	1.0µH					

(5)						
Inductance Tolerance						
1	±7%					
K	±10%					
L	±15%					
M	±20%					

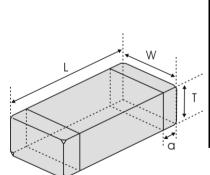
7	
Hazardous Substance Free	
Products	
F	

Packing

Tape & Reel

SHAPE AND DIMENSIONS

Unit: mm [inch]



Type	L	W	Т	а
SDFL1005	1.0±0.15	0.5±0.15	0.5±0.15	0.25±0.1
[0402]	[.039±.006]	[.020±.006]	[.020±.006]	[.010±.004]
SDFL1608 [0603]	1.6±0.15 [.063±.006]	0.8±0.15 [.031±.006]	0.8±0.15 [.031±.006]	0.3±0.2 [.012±.008]
SDFL2012 [0805]	2.0 (+0.3, -0.1) [.079 (+.012,004)]	1.25±0.2 [.049±.008]	0.85±0.2 [.033±.008] 1.25±0.2 [.049±.008]	0.5±0.3 [.020±.012]
SDFL3216 [1206]	3.2±0.2 [.126±.008]	1.6±0.2 [.063±.008]	0.85±0.2 [.033±.008] 1.1±0.2 [.043±.008]	0.5±0.3 [.020±.012]

SDFL1005 Series

Part Number	Inductance	Min. Quality Factor	L, Q Test Freq.L/Q	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current	Thickness
Units	μH	-	MHz	MHz	Ω	mA	mm [inch]
Symbol	L	Q	Freq.	S.R.F	DCR	lr	Т
SDFL1005L47N□TF	0.047	10	50	220	0.45	25	
SDFL1005L68N□TF	0.068	10	50	210	0.45	25	
SDFL1005L82N□TF	0.082	10	50	200	0.45	25	
SDFL1005LR10□TF	0.1	10	25	200	8.0	25	
SDFL1005LR12□TF	0.12	10	25	165	8.0	25	
SDFL1005LR15□TF	0.15	10	25	140	0.9	25	
SDFL1005LR18□TF	0.18	10	25	120	0.9	25	
SDFL1005LR22□TF	0.22	10	25	110	1.2	25	
SDFL1005LR27□TF	0.27	15	25	95	1.2	25	
SDFL1005LR33□TF	0.33	15	25	85	1.25	18	
SDFL1005QR39□TF	0.39	20	10	85	0.6	15	
SDFL1005QR47□TF	0.47	20	10	80	0.7	15	
SDFL1005QR56□TF	0.56	20	10	75	0.8	15	0.5±0.15
SDFL1005QR68□TF	0.68	20	10	70	0.9	15	[.020±.006]
SDFL1005QR82□TF	0.82	20	10	65	0.9	15	
SDFL1005P1R0□TF	1.0	20	10	60	1.0	15	
SDFL1005P1R2□TF	1.2	20	10	55	1.25	15	
SDFL1005P1R5□TF	1.5	20	10	50	1.4	15	
SDFL1005P1R8□TF	1.8	20	10	45	1.55	15	
SDFL1005P2R2□TF	2.2	20	10	40	1.7	10	
SDFL1005Q1R0□TF	1.0	20	10	40	0.9	15	
SDFL1005Q1R2□TF	1.2	20	10	35	1.2	15	
SDFL1005Q1R5□TF	1.5	20	10	30	1.2	15	
SDFL1005Q1R8□TF	1.8	20	10	30	1.45	15	
SDFL1005Q2R2□TF	2.2	20	10	28	1.7	10	
SDFL1005Q2R7□TF	2.7	20	10	28	2.4	10	
SDFL1005Q3R3□TF	3.3	20	10	28	2.7	10	

SDFL1608 Series

Part Number	Inductance	Min. Quality Factor	L, Q Test Freq.L/Q	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current	Thickness
Units	μH	-	MHz	MHz	Ω	mA	mm [inch]
Symbol	L	Q	Freq.	S.R.F	DCR	lr	Т
SDFL1608L47N□TF	0.047	10	50	260	0.3	50	
SDFL1608L68N□TF	0.068	10	50	250	0.3	50	
SDFL1608L82N□TF	0.082	10	50	245	0.3	50	
SDFL1608LR10□TF	0.1	15	25	240	0.5	50	
SDFL1608LR12□TF	0.12	15	25	205	0.5	50	
SDFL1608LR15□TF	0.15	15	25	180	0.6	50	0.8±0.15
SDFL1608LR18□TF	0.18	15	25	165	0.6	50	[.031±.006]
SDFL1608LR22□TF	0.22	15	25	150	0.8	50	
SDFL1608LR27□TF	0.27	15	25	136	0.8	50	
SDFL1608LR33□TF	0.33	15	25	125	0.85	35	
SDFL1608LR39□TF	0.39	15	25	110	1.0	35	
SDFL1608LR47□TF	0.47	15	25	105	1.35	35	
SDFL1608LR56□TF	0.56	15	25	95	1.55	35	

SDFL1608 Series

SDFL 1000 Selles							
Part Number	Inductance	Min. Quality Factor	L, Q Test Freq.L/Q	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current	Thickness
Units	μH	-	MHz	MHz	Ω	mA	mm [inch]
Symbol	L	Q	Freq.	S.R.F	DCR	lr	T
SDFL1608LR68□TF	0.68	15	25	90	1.7	35	
SDFL1608LR82□TF	0.82	15	25	85	2.1	35	
SDFL1608P1R0□TF	1.0	35	10	90	0.6	25	
SDFL1608P1R1□TF	1.1	35	10	90	0.6	25	
SDFL1608P1R2□TF	1.2	35	10	85	0.8	25	
SDFL1608P1R5□TF	1.5	35	10	80	0.8	25	
SDFL1608P1R8□TF	1.8	35	10	75	0.95	25	
SDFL1608P2R2□TF	2.2	35	10	70	1.15	15	
SDFL1608Q1R0□TF	1.0	35	10	75	0.6	25	
SDFL1608Q1R1□TF	1.1	35	10	75	0.6	25	
SDFL1608Q1R2□TF	1.2	35	10	65	0.8	25	
SDFL1608Q1R5□TF	1.5	35	10	60	0.8	25	
SDFL1608Q1R8□TF	1.8	35	10	55	0.95	25	0.8±0.15
SDFL1608Q2R2□TF	2.2	35	10	50	1.15	15	[.031±.006]
SDFL1608Q2R7□TF	2.7	35	10	45	1.35	15	[.001±.000]
SDFL1608Q3R3□TF	3.3	35	10	40	1.55	15	
SDFL1608Q3R9□TF	3.9	35	10	35	1.7	15	
SDFL1608Q4R7□TF	4.7	35	10	33	2.1	15	
SDFL1608S5R6□TF	5.6	35	4	22	1.55	5	
SDFL1608S6R8□TF	6.8	35	4	20	1.7	5	
SDFL1608S8R2□TF	8.2	35	4	18	2.1	5	
SDFL1608S100□TF	10	30	2	17	1.85	3	
SDFL1608S120□TF	12	30	2	15	2.1	3	
SDFL1608T150□TF	15	20	1	14	1.7	1	
SDFL1608T180□TF	18	20	1	13	1.85	1	
SDFL1608T220□TF	22	20	1	11	2.1	1	
SDFL1608T270□TF	27	20	1	10	2.75	1	
SDFL1608T330□TF	33	20	1	9	2.95	1	

SDFL2012 Series

Part Number	Inductance	Min. Quality Factor	L, Q Test Freq.L/Q	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current	Thickness
Units	μH	-	MHz	MHz	Ω	mA	mm [inch]
Symbol	L	Q	Freq.	S.R.F	DCR	lr	Т
SDFL2012L47N□TF	0.047	15	50	320	0.2	300	
SDFL2012L68N□TF	0.068	15	50	280	0.2	300	
SDFL2012L82N□TF	0.082	15	50	255	0.2	300	
SDFL2012LR10□TF	0.1	20	25	235	0.3	250	
SDFL2012LR12□TF	0.12	20	25	220	0.3	250	
SDFL2012LR15□TF	0.15	20	25	200	0.4	250	0.85±0.2
SDFL2012LR18□TF	0.18	20	25	185	0.4	250	[.033±.008]
SDFL2012LR22□TF	0.22	20	25	170	0.5	250	
SDFL2012LR27□TF	0.27	20	25	150	0.5	250	
SDFL2012LR33□TF	0.33	20	25	145	0.55	250	
SDFL2012LR39□TF	0.39	25	25	135	0.65	200	
SDFL2012LR47□TF	0.47	25	25	125	0.65	200	

SDFL2012 Series

SDI E2012 Series		Min. Quality	L, Q Test	Min.	Max. DC	Max. Rated	
Part Number	Inductance	Factor	Freq.L/Q	Self-resonant Frequency	Resistance	Current	Thickness
Units	μH	-	MHz	MHz	Ω	mA	mm [inch]
Symbol	L	Q	Freq.	S.R.F	DCR	lr	Т
SDFL2012LR56□TF	0.56	25	25	115	0.75	150	
SDFL2012LR68□TF	0.68	25	25	105	0.8	150	
SDFL2012LR82□TF	0.82	25	25	100	1	150	
SDFL2012P1R0□TF	1.0	45	10	95	0.4	50	
SDFL2012P1R2□TF	1.2	45	10	85	0.5	50	
SDFL2012P1R5□TF	1.5	45	10	80	0.5	50	
SDFL2012P1R8□TF	1.8	45	10	75	0.6	50	
SDFL2012P2R2□TF	2.2	45	10	70	0.65	30	
SDFL2012Q1R0□TF	1.0	45	10	75	0.4	50	
SDFL2012Q1R1□TF	1.1	45	10	65	0.5	50	
SDFL2012Q1R2□TF	1.2	45	10	65	0.5	50	
SDFL2012Q1R5□TF	1.5	45	10	60	0.5	50	
SDFL2012Q1R8□TF	1.8	45	10	55	0.6	50	0.05.0.0
SDFL2012Q2R2□TF	2.2	45	10	50	0.65	30	0.85±0.2 [.033±.008]
SDFL2012Q2R4□TF	2.4	45	10	47	0.70	30	[.033±.006]
SDFL2012Q2R7□TF	2.7	45	10	45	0.75	30	
SDFL2012Q3R3□TF	3.3	45	10	41	0.8	30	
SDFL2012Q3R9□TF	3.9	45	10	38	0.9	30	
SDFL2012Q4R7□TF	4.7	45	10	35	1	30	
SDFL2012S5R6□TF	5.6	50	4	32	0.9	15	
SDFL2012S6R8□TF	6.8	50	4	29	1	15	
SDFL2012S8R2□TF	8.2	50	4	26	1.1	15	
SDFL2012S100□TF	10	50	2	24	1.15	15	
SDFL2012S120□TF	12	50	2	22	1.25	15	
SDFL2012T150□TF	15	30	1	19	0.8	5	
SDFL2012T180□TF	18	30	1	18	0.9	5	
SDFL2012T220□TF	22	30	1	16	1.1	5	
SDFL2012T270□TF	27	30	1	14	1.15	5	
SDFL2012T330□TF	33	30	0.4	13	1.25	5	1.25±0.2
SDFL2012T390□TF	39	35	2	8	2.9	4	[.049±.008]
SDFL2012T470□TF	47	35	2	7.5	3	4	

SDFL3216 Series

Part Number	Inductance	Min. Quality Factor	L, Q Test Freq.L/Q	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current	Thickness
Units	μH	-	MHz	MHz	Ω	mA	mm [inch]
Symbol	L	Q	Freq.	S.R.F	DCR	lr	Т
SDFL3216L47N□TF	0.047	20	50	320	0.15	300	
SDFL3216L68N□TF	0.068	20	50	280	0.25	300	
SDFL3216LR10□TF	0.1	20	25	235	0.25	250	
SDFL3216LR12□TF	0.12	20	25	220	0.3	250	
SDFL3216LR15□TF	0.15	20	25	200	0.3	250	0.85±0.2
SDFL3216LR18□TF	0.18	20	25	185	0.4	250	[.033±.008]
SDFL3216LR22□TF	0.22	20	25	170	0.4	250	
SDFL3216LR27□TF	0.27	20	25	150	0.5	250	
SDFL3216LR33□TF	0.33	20	25	145	0.6	250	
SDFL3216LR39□TF	0.39	25	25	135	0.5	200	

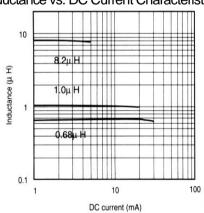
SDFL3216 Series

Part Number	Inductance	Min. Quality Factor	L, Q Test Freq.L/Q	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current	Thickness
Units	μH	-	MHz	MHz	Ω	mA	mm [inch]
Symbol	L	Q	Freq.	S.R.F	DCR	lr	T
SDFL3216LR47□TF	0.47	25	25	125	0.6	200	0.85±0.2 [.033±.008]
SDFL3216LR56□TF	0.56	25	25	115	0.7	150	
SDFL3216LR68□TF	0.68	25	25	105	0.8	150	
SDFL3216LR82□TF	0.82	25	25	100	0.9	150	
SDFL3216Q1R0□TF	1.0	45	10	75	0.4	100	
SDFL3216Q1R2□TF	1.2	45	10	65	0.5	100	
SDFL3216Q1R5□TF	1.5	45	10	60	0.5	50	
SDFL3216Q1R8□TF	1.8	45	10	55	0.5	50	
SDFL3216Q2R2□TF	2.2	45	10	50	0.6	50	
SDFL3216Q2R7□TF	2.7	45	10	45	0.6	50	
SDFL3216Q3R3□TF	3.3	45	10	41	0.7	50	
SDFL3216Q3R9□TF	3.9	45	10	38	8.0	50	
SDFL3216Q4R7□TF	4.7	45	10	35	0.9	50	
SDFL3216S5R6□TF	5.6	50	4	32	0.7	25	
SDFL3216S6R8□TF	6.8	50	4	29	8.0	25	
SDFL3216S8R2□TF	8.2	50	4	26	0.9	25	
SDFL3216S100□TF	10	50	2	24	1	25	
SDFL3216S120□TF	12	50	2	22	1.05	15	
SDFL3216T150□TF	15	35	1	19	0.7	5	
SDFL3216T180□TF	18	35	1	18	0.7	5	
SDFL3216T220□TF	22	35	1	16	0.9	5	
SDFL3216T270□TF	27	35	1	14	0.9	5	
SDFL3216T330□TF	33	35	0.4	13	1.05	5	1.10±0.2 [.043±.008]
SDFL3216T390□TF	39	40	2	11	3	5	
SDFL3216T470□TF	47	40	2	10	3.4	5	

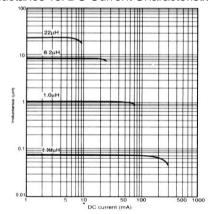
^{※ □:} Please specify the inductance tolerance code (I=±7%,K=±10%,L=±15%, M=±20%). The product with tolerance less than ±7% is also available. Please contact your local sales.

TYPICAL ELECTRICAL CHARACTERISTICS

SDFL1005 Series Inductance vs. DC Current Characteristics

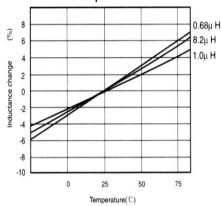


SDFL1608 Series Inductance vs. DC Current Characteristics

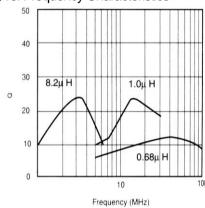


TYPICAL ELECTRICAL CHARACTERISTICS

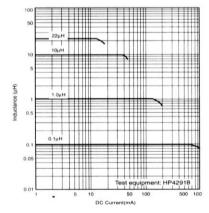
SDFL1005 Series Inductance vs. Temperature Characteristics



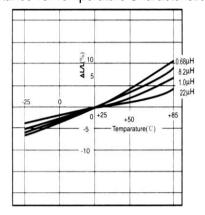
Q vs. Frequency Characteristics



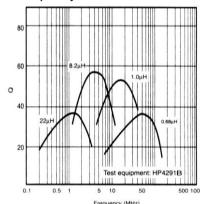
SDFL2012 Series Inductance vs. DC Current Characteristics



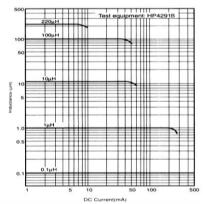
SDFL1608 Series Inductance vs. Temperature Characteristics



Q vs. Frequency Characteristics

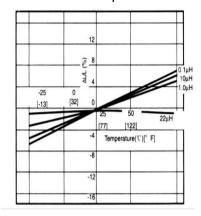


SDFL3216 Series Inductance vs. DC Current Characteristics

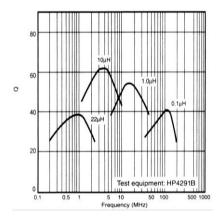


TYPICAL ELECTRICAL CHARACTERISTICS

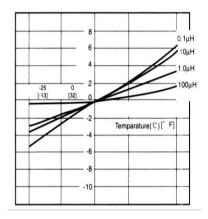
SDFL2012 Series Inductance vs. Temperature Characteristics



Q vs. Frequency Characteristics



SDFL3216 Series Inductance vs. Temperature Characteristics



Q vs. Frequency Characteristics

