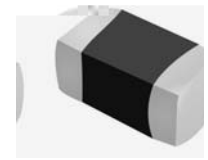


# Multilayer Chip Ferrite Inductor – SDFL Series

Operating Temp. : -40 ~+85



## 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

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

## PRODUCT IDENTIFICATION

**SDFL**      **1608**      **Q**      **1R0**      **K**      **I**      **E**

Type	
SDFL	Chip Ferrite Inductor

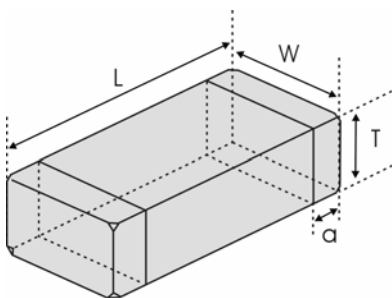
External Dimensions (LxW) (mm)	
1005 [0402]	1.0x0.5
1608 [0603]	1.6x0.8
2012 [0805]	2.0x1.25
3216 [1206]	3.2x1.6

Material Code
L, P, Q, S, T

Nominal Inductance	
Example	Nominal Value
47N	0.047 H
R10	0.1 H
1R0	1.0 H
R=	N=nH

Inductance Tolerance	
I	±7%
K	±10%
L	±15%
M	±20%


## SHAPE AND DIMENSIONS




# SPECIFICATIONS

## SDFL1005 TYPE

Part Number	Inductance	Min. Quality Factor	L, Q Test Freq.L/Q	Min.Self-resonant Frequency	Max. DC Resistance	Max. Rated Current	Thickness
Units	H	-	MHz	MHz		mA	mm [inch]
Symbol	L	Q	Freq.	S.R.F	DCR	I <sub>r</sub>	T
SDFL1005L47N TF	0.047	10	50	220	0.45	25	0.5±0.15 [.020±.006]
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	0.8	25	
SDFL1005LR12 TF	0.12	10	25	165	0.8	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	
SDFL1005QR68 TF	0.68	20	10	70	0.9	15	
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	

# SPECIFICATIONS

## SDFL1608 TYPE

Part Number	Inductance	Min. Quality Factor	L, Q Test Freq.L/Q	Min.Self-resonant Frequency	Max. DC Resistance	Max. Rated Current	Thickness
Units	H	-	MHz	MHz		mA	mm [inch]
Symbol	L	Q	Freq.	S.R.F	DCR	Ir	T
SDFL1608L47N TF	0.047	10	50	260	0.3	50	0.8±0.15 [.031±.006]
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	
SDFL1608LR18 TF	0.18	15	25	165	0.6	50	
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	35	
SDFL1608LR47 TF	0.47	15	25	105	1.35	35	
SDFL1608LR56 TF	0.56	15	25	95	1.55	35	
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	
SDFL1608Q2R2 TF	2.2	35	10	50	1.15	15	
SDFL1608Q2R7 TF	2.7	35	10	45	1.35	15	
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	

# SPECIFICATIONS

## SDFL2012 TYPE

Part Number	Inductance	Min. Quality Factor	L, Q Test Freq.L/Q	Min.Self-resonant Frequency	Max. DC Resistance	Max. Rated Current	Thickness
Units	H	-	MHz	MHz		mA	mm [inch]
Symbol	L	Q	Freq.	S.R.F	DCR	Ir	T
SDFL2012L47N TF	0.047	15	50	320	0.2	300	0.85±0.2 [.033±.008]
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	
SDFL2012LR18 TF	0.18	20	25	185	0.4	250	
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	
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	
SDFL2012Q2R2 TF	2.2	45	10	50	0.65	30	
SDFL2012Q2R4 TF	2.4	45	10	47	0.70	30	
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	1	13	1.25	5	
SDFL2012T390 TF	39	35	2	8	2.9	4	
SDFL2012T470 TF	47	35	2	7.5	3	4	

## SPECIFICATIONS

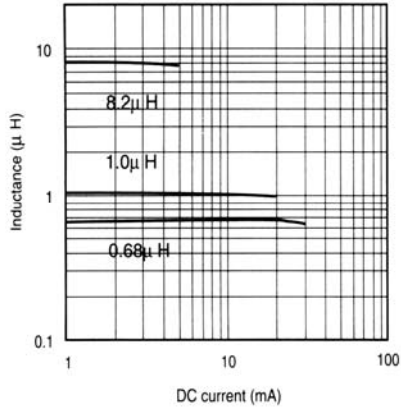
### SDFL3216 TYPE

Part Number	Inductance	Min. Quality Factor	L, Q Test Freq.L/Q	Min.Self-resonant Frequency	Max. DC Resistance	Max. Rated Current	Thickness
Units	H	-	MHz	MHz			

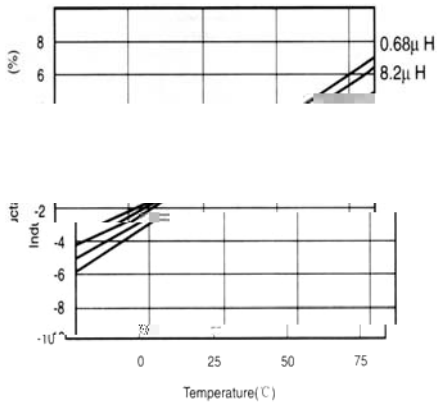
# TYPICAL ELECTRICAL CHARACTERISTICS

## SDFL1005 TYPE

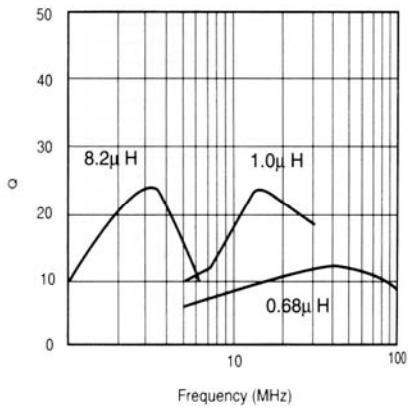
Inductance vs. DC Current Characteristics



Inductance vs. Temperature Characteristics

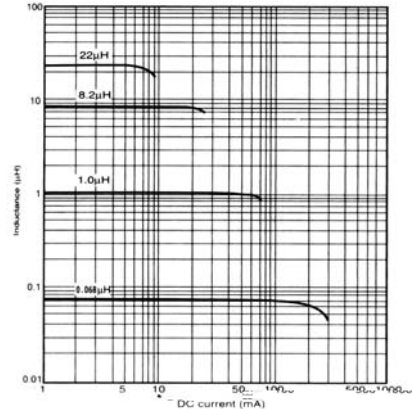


Q vs. Frequency Characteristics

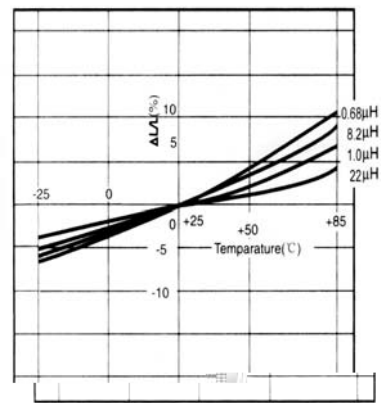


## SDFL1608 TYPE

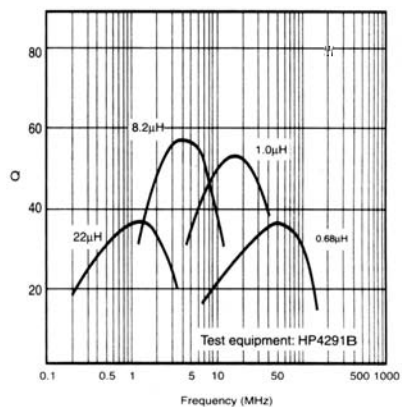
Inductance vs. DC Current Characteristics



Inductance vs. Temperature Characteristics



Q vs. Frequency Characteristics



# TYPICAL ELECTRICAL CHARACTERISTICS

SDFL2012 TYPE  
Inductance vs. DC Current Characteristics

SDFL3216 TYPE  
Inductance vs. DC Current Characteristics

