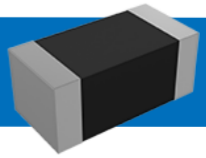
叠层片式铁氧体电感—SDFL 系列
Multilayer Chip Ferrite Inductor – SDFL Series



工作温度 Operating Temp

- -40˚C ~+85˚C

特征 Features

- 迭层独石结构、高度可靠性
- 体积小
- 良好的磁屏蔽，无交叉耦合
- 无引线结构，适合表面安装
- 良好的焊接性，适合于回流焊或波峰焊
- 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

用途 Applications

- 广泛运用于通讯、视频 / 音频、计算机、消费电子等领域
- Widely use in Communications, Video and audio equipment, Computer, Consumer Electronics, etc.

产品型号 Product Identification

1	2	3	4	5	6	7	8
SDFL	1608	Q	1R0	K	T	F	A99

1 分类 Type

SDFL	片式铁氧体电感 Chip Ferrite Inductor

2 外形尺寸和结构 (L×W) (mm) External Dimensions (L×W) (mm)

1005 [0402]	1.0×0.5
1608 [0603]	1.6×0.8
2012 [0805]	2.0×1.25
3216 [1206]	3.2×1.6

3 材料代号 Material Code

L, P, Q, S, T

4 公称电感量 Nominal Inductance

Example	Nominal Value
47N	0.047μH
R10	0.1μH
1R0	1.0μH
※R= 小数点，N=nH	

5 电感公差 Inductance Tolerance

I	±7%
K	±10%
L	±15%
M	±20%

6 包装 Packing

T	编带 Tape & Reel

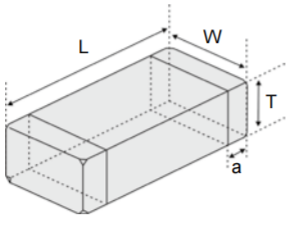
7 无有害物质产品 Hazardous Substance Free Products

F

8 内部代号 Internal Code

A99

外观尺寸 Shape and Dimensions



Unit: mm [inch]

Type	L	W	T	a
SDFL1005 [0402]	1.0±0.15 [.039±.006]	0.5±0.15 [.020±.006]	0.5±0.15 [.020±.006]	0.25±0.1 [.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]	0.5±0.3 [.020±.012]
			1.25±0.2 [.049±.008]	
SDFL3216 [1206]	3.2±0.2 [.126±.008]	1.6±0.2 [.063±.008]	0.85±0.2 [.033±.008]	0.5±0.3 [.020±.012]
			1.1±0.2 [.043±.008]	

规格特性
Specifications

SDFL1005 Series

型号 Part Number	电感量 Inductance	品质因子 Min. Quality Factor	测试频率 L, Q Test Freq.L/Q	自谐频率 Min.Self-resonant Frequency	直流电阻 Max. DC Resistance	额定电流 Max. Rated Current	厚度 Thickness
单位 Units	μH	-	MHz	MHz	Ω	mA	mm [inch]
符号 Symbol	L	Q	Freq.	S.R.F	DCR	Ir	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	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

型号 Part Number	电感量 Inductance	品质因子 Min. Quality Factor	测试频率 L, Q Test Freq.L/Q	自谐频率 Min.Self-resonant Frequency	直流电阻 Max. DC Resistance	额定电流 Max. Rated Current	厚度 Thickness
单位 Units	μH	-	MHz	MHz	Ω	mA	mm [inch]
符号 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	

规格特性
Specifications

SDFL1608 Series

型号 Part Number	电感量 Inductance	品质因子 Min. Quality Factor	测试频率 L, Q Test Freq.L/Q	自谐频率 Min.Self-resonant Frequency	直流电阻 Max. DC Resistance	额定电流 Max. Rated Current	厚度 Thickness
单位 Units	μH	-	MHz	MHz	Ω	mA	mm [inch]
符号 Symbol	L	Q	Freq.	S.R.F	DCR	Ir	T
SDFL1608P1R5 ☐ TF	1.5	35	10	80	0.8	25	0.8±0.15 [.031±.006]
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	

SDFL2012 Series

型号 Part Number	电感量 Inductance	品质因子 Min. Quality Factor	测试频率 L, Q Test Freq.L/Q	自谐频率 Min.Self-resonant Frequency	直流电阻 Max. DC Resistance	额定电流 Max. Rated Current	厚度 Thickness
单位 Units	μH	-	MHz	MHz	Ω	mA	mm [inch]
符号 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	

规格特性
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SDFL2012 Series

型号 Part Number	电感量 Inductance	品质因子 Min. Quality Factor	测试频率 L, Q Test Freq.L/Q	自谐频率 Min.Self-resonant Frequency	直流电阻 Max. DC Resistance	额定电流 Max. Rated Current	厚度 Thickness
单位 Units	μH	-	MHz	MHz	Ω	mA	mm [inch]
符号 Symbol	L	Q	Freq.	S.R.F	DCR	Ir	T
SDFL2012Q1R2 ☐ TF	1.2	45	10	65	0.5	50	0.85±0.2 [.033±.008]
SDFL2012Q1R5 ☐ TF	1.5	45	10	60	0.5	50	
SDFL2012Q1R8 ☐ TF	1.8	45	10	55	0.6	50	
SDFL2012Q2R4 ☐ TF	2.4	45	10	47	0.7	30	
SDFL2012Q2R7 ☐ TF	2.7	45	10	45	0.75	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 ☐ TFA99	27	30	1	14	1.15	5	1.25±0.2 [0.049±0.008]
SDFL2012T330 ☐ TFA99	33	30	0.4	13	1.25	5	
SDFL2012T390 ☐ TFA99	39	35	2	8	2.9	4	
SDFL2012T470 ☐ TFA99	47	35	2	7.5	3	4	
SDFL2012Q2R2 ☐ TFA99	2.2	45	10	50	0.65	30	
SDFL2012Q3R3 ☐ TFA99	3.3	45	10	41	0.8	30	
SDFL2012Q4R7 ☐ TFA99	4.7	45	10	47	1	30	

SDFL3216 Series

型号 Part Number	电感量 Inductance	品质因子 Min. Quality Factor	测试频率 L, Q Test Freq.L/Q	自谐频率 Min.Self-resonant Frequency	直流电阻 Max. DC Resistance	额定电流 Max. Rated Current	厚度 Thickness
单位 Units	μH	-	MHz	MHz	Ω	mA	mm [inch]
符号 Symbol	L	Q	Freq.	S.R.F	DCR	Ir	T
SDFL3216L47N ☐ TF	0.047	20	50	320	0.15	300	0.85±0.2 [.033±.008]
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	
SDFL3216LR18 ☐ TF	0.18	20	25	185	0.4	250	
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	
SDFL3216LR47 ☐ TF	0.47	25	25	125	0.6	200	
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	0.8	50	
SDFL3216Q4R7 ☐ TF	4.7	45	10	35	0.9	50	

规格特性
Specifications

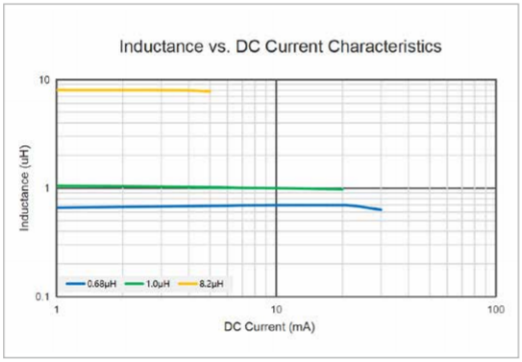
SDFL3216 Series

型号 Part Number	电感量 Inductance	品质因子 Min. Quality Factor	测试频率 L, Q Test Freq.L/Q	自谐频率 Min.Self-resonant Frequency	直流电阻 Max. DC Resistance	额定电流 Max. Rated Current	厚度 Thickness
单位 Units	μH	-	MHz	MHz	Ω	mA	mm [inch]
符号 Symbol	L	Q	Freq.	S.R.F	DCR	Ir	T
SDFL3216S5R6 ☐ TF	5.6	50	4	32	0.7	25	0.85±0.2 [.033±.008]
SDFL3216S6R8 ☐ TF	6.8	50	4	29	0.8	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 ☐ TFA99	33	35	0.4	13	1.05	5	1.10±0.2 [0.043±0.008]
SDFL3216T390 ☐ TFA99	39	40	2	11	3	5	
SDFL3216T470 ☐ TFA99	47	40	2	10	3.4	5	

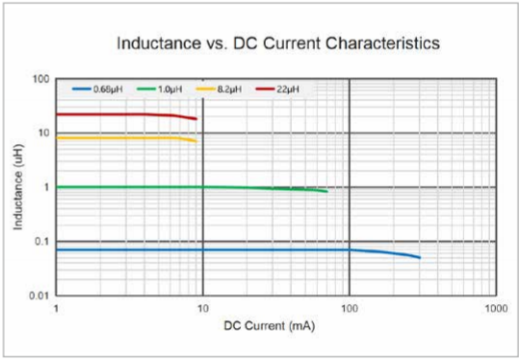
※☐: 请指定电感量精度代码 (I=±7%, K=±10%, M=±20%, M=±20%)。公差小于±7%的产品也可提供。请联系您当地的销售人员。
※☐: Please specify the inductance tolerance code (I=±7%, K=±10%, L=±15%, M=±20%). The product with tolerance less than ±7% is also available.Please contact your local sales.

电气特性
Typical Electrical Characteristics

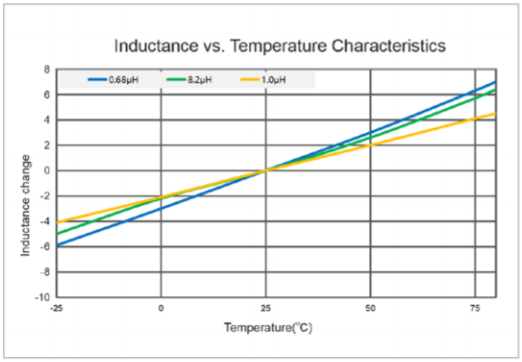
SDFL1005 Series
Inductance vs. DC Current Characteristics



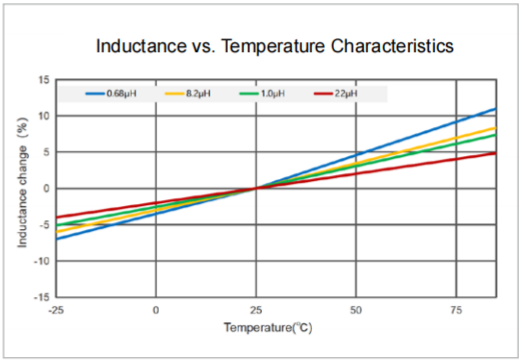
SDFL1608 Series
Inductance vs. DC Current Characteristics



Inductance vs. Temperature Characteristics

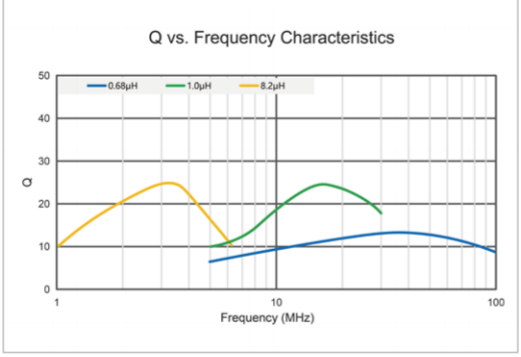


Inductance vs. Temperature Characteristics

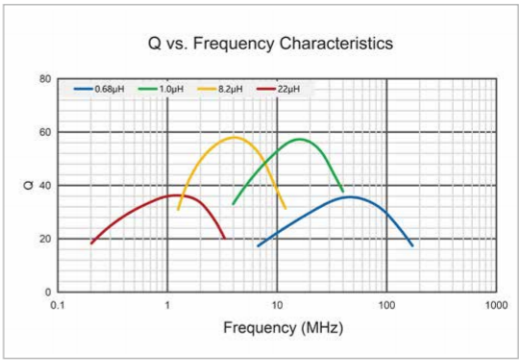


电气特性
Typical Electrical Characteristics

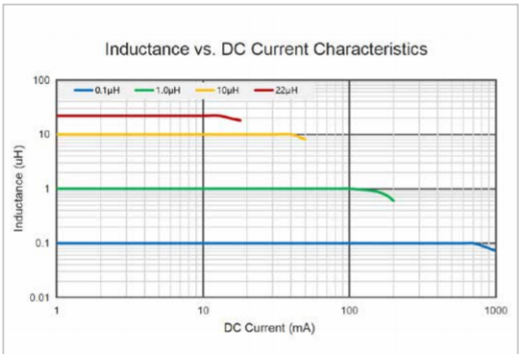
SDFL1005 Series
Q vs. Frequency Characteristics



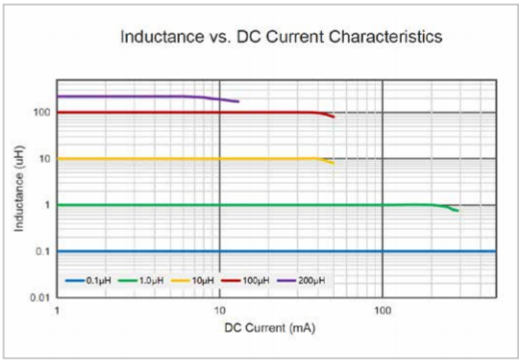
SDFL1608 Series
Q vs. Frequency Characteristics



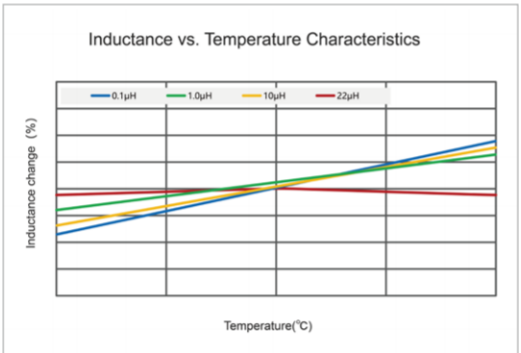
SDFL2012 Series
Inductance vs. DC Current Characteristics



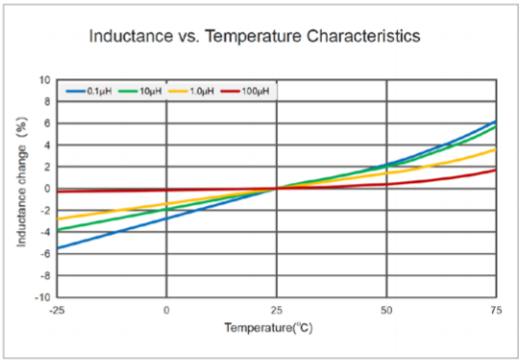
SDFL3216 Series
Inductance vs. DC Current Characteristics



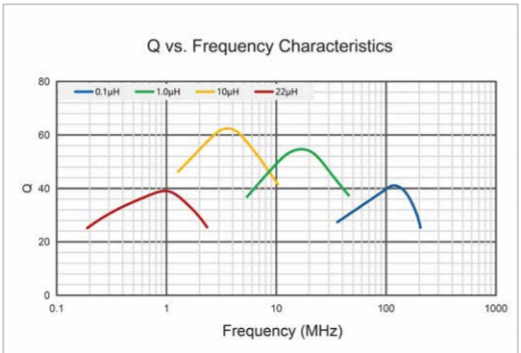
Inductance vs. Temperature Characteristics



Inductance vs. Temperature Characteristics



Q vs. Frequency Characteristics



Q vs. Frequency Characteristics