

■ 绕线型片式铁氧体电感器

Wire Wound Chip Ferrite Inductors

◆ 特征 Feature

- * 体积小，适合高密度表面贴装
Small Size For SMT.
- * 采用端电极结构，很好地抑制了引线引起的寄生元件效应，具有高可靠性
using Terminal Electrode Structure To Restrain The Parasitic Component Effect Quite Caused By Lead.
- * 低电阻、高电流和高电感量
Low DC Resistance , High Current And High Inductance.
- * 优良的焊接性和耐焊性
Excellent In Solder Ability And Heat Resistance.



◆ 应用 Application

- * 视听设备、无线通讯设备和各类通用电子设备
Wireless Communication Equipment And Various Types Of General Electronic Equipment.
- * 蓝牙模块, 音频电路
Bluetooth Audio Circuit.
- * 其它电子设备
Other Electronic Equipment.

◆ 型号表示法 Part Number

FHW	0805	UF	R68	J	S	T
①	②	③	④	⑤	⑥	⑦

① 产品类型 Product Type:

FHW: 绕线型片式电感器系列

FHW: Wire Wound Inductor Series

② 尺寸 Dimensions: 0603(1.6×0.8mm)、0805(2.0×1.2mm)、1008 (2.5×2.0mm)、1210 (3.2×2.5mm)、1812(4.5×3.2mm)

③ 材料代号 Material Code: UF/IF---铁氧体芯 Ferrite core

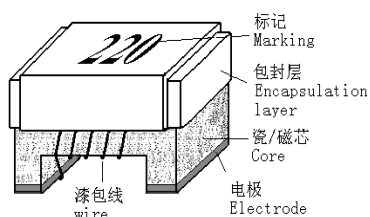
④ 标称电感量 Inductance: 010=10nH、R10=100nH、1R0=1.0μH、100=10μH、101=100μH、102=1mH

⑤ 标称电感值偏差 Tolerance: J---±5%; K---±10%; M---±20%

⑥ 电极表面镀层材料 Terminal: S---锡端头 Tin

⑦ 包装 Packaging: T: 编带包装 Tape & Reel

◆ 产品结构 Product Structure

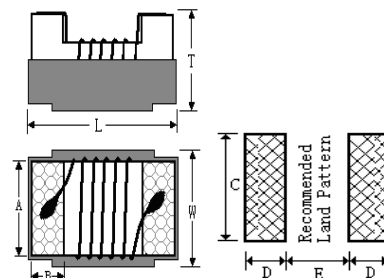


序号 No.	部位 Component	材料 Material
1	磁芯 Core	镍锌铁氧体 Ni-Zn ferrite
2	电极 Electrode	锡 Sn
3	漆包线 wire	铜 Cu
4	包封层 encapsulation layer	树脂 UV Adhesive
5	标识 Marking	油墨 UV printing ink
* 0603系列产品无印标识 0603 series products are not marked.		

◆规格尺寸 Dimension

单位 Unit: mm (inch)

Size	L (Max)	W (Max)	T (Max)	A(typ)	B(typ)	C(typ)	D(typ)	E(typ)
1608 (0603)	1.78 (0.070)	1.10 (0.043)	0.95 (0.037)	0.76 (0.030)	0.30 (0.012)	1.02 (0.040)	0.64 (0.025)	0.64 (0.025)
0603IF	1.80 (0.071)	1.20 (0.047)	1.00 (0.039)	0.90 (0.035)	0.35 (0.014)	1.02 (0.040)	0.64 (0.025)	0.70 (0.028)
2012 (0805)	2.30 (0.091)	1.70 (0.067)	1.52 (0.060)	1.27 (0.050)	0.50 (0.020)	1.78 (0.070)	1.02 (0.040)	0.76 (0.030)
2520 (1008)	2.92 (0.115)	2.79 (0.110)	2.10 (0.083)	2.00 (0.079)	0.50 (0.020)	2.54 (0.100)	1.02 (0.040)	1.27 (0.050)
3225 (1210)	3.50 (0.138)	2.90 (0.114)	2.25 (0.088)	2.10 (0.083)	0.50 (0.020)	2.54 (0.100)	1.02 (0.040)	1.78 (0.070)
4532 (1812)	4.80 (0.189)	3.40 (0.134)	3.15 (0.124)	2.53 (0.100)	0.65 (0.026)	3.05 (0.120)	1.14 (0.045)	3.00 (0.118)



◆工作温度范围 Operating Temperature Range

工作温度范围 FHW series: -40℃~+85℃

Operating Temperature Range FHW series: -40℃~+85℃

◆电性能参数 ELECTRICAL CHARACTERISTICS

* 测试条件 Testing conditions

电感量/Q 值 Inductance/ Q: HP4286A 或 E4982A 电桥或等同测量仪器, 测试电压 500mV. HP4286A or E4982A bridge or equivalent measuring instrument, test voltage 500mV.

直流电阻 Rdc: HP4286A、RM3542 或等同测量仪器. HP4286A、RM3542 or equivalent measuring instrument.

额定电流 Rated current: 施加额定电流, 产品表面温升不超过 20℃。使用直流电流源、LCR 测试仪与温表测试。Apply the rated current, and the surface temperature rise of the product shall not exceed 20℃. Use a DC current source, LCR tester, and temperature gauge for testing.

0603UF Type

型号 Part NO	电感量 Inductance (μH)	偏差范围 Tolerance	Q 值 Q (Min)	自谐振频率 SRF (MHZ) Min	最大直流电阻 Rdc (Ω) Max	额定电流 Idc(mA) Max
FHW0603UF047□ST	0.047@7.9MHz	J,K	12@7.9MHz	1500	0.100	1000
FHW0603UF072□ST	0.072@7.9MHz	J,K	12@7.9MHz	1400	0.120	1000
FHW0603UFR82□ST	0.082@7.9MHz	J,K	12@7.9MHz	1300	0.100	1000
FHW0603UFR10□ST	0.10@7.9MHz	J,K	12@7.9MHz	1150	0.130	1000
FHW0603UFR12□ST	0.12@7.9MHz	J,K	12@7.9MHz	1100	0.160	1000
FHW0603UFR15□ST	0.15@7.9MHz	J,K	12@7.9MHz	1050	0.150	1000
FHW0603UFR18□ST	0.18@7.9MHz	J,K	12@7.9MHz	950	0.180	1000
FHW0603UFR22□ST	0.22@7.9MHz	J,K	12@7.9MHz	900	0.200	900
FHW0603UFR24□ST	0.24@7.9MHz	J,K	12@7.9MHz	800	0.280	850
FHW0603UFR27□ST	0.27@7.9MHz	J,K	12@7.9MHz	775	0.300	700

FHW0603UFR33□ST	0.33@7.9MHz	J,K	12@7.9MHz	725	0.320	600
FHW0603UFR39□ST	0.39@7.9MHz	J,K	12@7.9MHz	620	0.510	500
FHW0603UFR47□ST	0.47@7.9MHz	J,K	12@7.9MHz	540	0.620	420
FHW0603UFR56□ST	0.56@7.9MHz	J,K	12@7.9MHz	600	0.650	400
FHW0603UFR62□ST	0.62@7.9MHz	J,K	12@7.9MHz	450	0.900	380
FHW0603UFR68□ST	0.68@7.9MHz	J,K	12@7.9MHz	500	1.000	380
FHW0603UFR75□ST	0.75@7.9MHz	J,K	12@7.9MHz	450	1.300	370
FHW0603UFR78□ST	0.78@7.9MHz	J,K	12@7.9MHz	450	1.300	370
FHW0603UFR82□ST	0.82@7.9MHz	J,K	12@7.9MHz	500	1.300	350
FHW0603UFR91□ST	0.91@7.9MHz	J,K	12@7.9MHz	450	1.400	340
FHW0603UF1R0□ST	1.0@7.9MHz	J,K	12@7.9MHz	400	1.500	330
FHW0603UF1R2□ST	1.2@7.9MHz	J,K	12@7.9MHz	380	1.700	320
FHW0603UF1R5□ST	1.5@7.9MHz	J,K	12@7.9MHz	300	1.900	310
FHW0603UF1R8□ST	1.8@7.9MHz	J,K	12@7.9MHz	180	2.200	300
FHW0603UF2R0□ST	2.0@7.9MHz	J,K	12@7.9MHz	180	2.300	280
FHW0603UF2R2□ST	2.2@7.9MHz	J,K	12@7.9MHz	180	2.300	280
FHW0603UF2R7□ST	2.7@7.9MHz	J,K	12@7.9MHz	150	3.100	250
FHW0603UF3R3□ST	3.3@7.9MHz	J,K	12@7.9MHz	150	2.900	230
FHW0603UF3R9□ST	3.9@7.9MHz	J,K	12@7.9MHz	120	3.200	210
FHW0603UF4R7□ST	4.7@7.9MHz	J,K	12@7.9MHz	100	4.000	200

0603IF Type

型号 Part NO	电感量 Inductance (μH)	偏差范围 Tolerance	Q 值 Q (Min)	自谐振频率 SRF (MHZ) Min	最大直流电阻 Rdc (Ω) Max	额定电流 Idc(mA) Max
FHW0603IF2R2□ST	2.2@7.9MHz	J,K	12@7.9MHz	180	2.3	280
FHW0603IF4R7□ST	4.7@7.9MHz	J,K	12@7.9MHz	80	4.0	200
FHW0603IF6R8□ST	6.8@7.9MHz	J,K	10@7.9MHz	28	3.9	200
FHW0603IF100□ST	100@7.9MHz	J,K	10@7.9MHz	25	4.8	180
FHW0603IF150□ST	150@7.9MHz	J,K	9@7.9MHz	18	8.5	150
FHW0603IF220□ST	220@7.9MHz	J,K	9@7.9MHz	10	12	100

0805 Type

型号 Part NO	电感量 Inductance (μ H)	偏差范围 Tolerance	Q 值 Q (Min)	自谐振频率 SRF (MHZ) Min	最大直流电阻 Rdc (Ω) Max	额定电流 Idc(mA) Max
FHW0805UFR12□ST	0.12@25.2MHz	J,K	15@25.2MHz	1000	0.200	800
FHW0805UFR15□ST	0.15@25.2MHz	J,K	15@25.2MHz	600	0.300	600
FHW0805UFR18□ST	0.18@25.2MHz	J,K	15@25.2MHz	550	0.250	750
FHW0805UFR22□ST	0.22@25.2MHz	J,K	15@25.2MHz	500	0.300	700
FHW0805UFR27□ST	0.27@25.2MHz	J,K	15@25.2MHz	550	0.350	550
FHW0805UFR33□ST	0.33@25.2MHz	J,K	15@25.2MHz	500	0.400	500
FHW0805UFR39□ST	0.39@25.2MHz	J,K	12@25.2MHz	500	0.350	550
FHW0805UFR47□ST	0.47@25.2MHz	J,K	10@25.2MHz	450	0.400	500
FHW0805UFR56□ST	0.56@25.2MHz	J,K	10@25.2MHz	450	0.400	500
FHW0805UFR68□ST	0.68@25.2MHz	J,K	10@25.2MHz	400	0.600	500
FHW0805UFR75□ST	0.75@25.2MHz	J,K	10@25.2MHz	400	0.700	500
FHW0805UFR82□ST	0.82@25.2MHz	J,K	10@25.2MHz	400	0.800	500
FHW0805UF1R0□ST	1.0@7.96MHz	J,K	10@7.96MHz	360	1.000	430
FHW0805UF1R2□ST	1.2@7.96MHz	J,K	10@7.96MHz	350	1.150	410
FHW0805UF1R5□ST	1.5@7.96MHz	J,K	10@7.96MHz	300	1.200	400
FHW0805UF1R8□ST	1.8@7.96MHz	J,K	10@7.96MHz	200	1.350	380
FHW0805UF2R2□ST	2.2@7.96MHz	J,K	10@7.96MHz	170	1.500	350
FHW0805UF2R7□ST	2.7@7.96MHz	J,K	10@7.96MHz	100	1.700	320
FHW0805UF3R3□ST	3.3@7.96MHz	J,K	10@7.96MHz	90	1.800	300
FHW0805UF3R9□ST	3.9@7.96MHz	J,K	10@7.96MHz	90	1.950	280
FHW0805UF4R7□ST	4.7@7.96MHz	J,K	10@7.96MHz	85	2.050	250
FHW0805UF5R6□ST	5.6@7.96MHz	J,K	10@7.96MHz	70	2.300	240
FHW0805UF6R8□ST	6.8@7.96MHz	J,K	10@7.96MHz	55	2.600	220
FHW0805UF7R5□ST	7.5@7.96MHz	J,K	10@7.96MHz	55	2.800	210
FHW0805UF8R2□ST	8.2@7.96MHz	J,K	10@7.96MHz	50	3.000	180
FHW0805UF100□ST	10@2.52MHz	J,K	8@2.52MHz	30	3.200	150
FHW0805UF120□ST	12@2.52MHz	J,K	8@2.52MHz	17	3.500	110
FHW0805UF150□ST	15@2.52MHz	J,K	8@2.52MHz	16	4.200	100
FHW0805UF180□ST	18@2.52MHz	J,K	8@2.52MHz	15	4.500	95
FHW0805UF220□ST	22@2.52MHz	J,K	8@2.52MHz	14	6.000	80

1008Type

型号 Part NO	电感量 Inductance (μ H)	偏差范围 Tolerance	Q 值 Q (Min)	自谐振频率 SRF (MHZ) Min	最大直流电阻 Rdc (Ω) Max	额定电流 Idc(mA) Max
FHW1008IFR12□ST	0.12@25.2MHz	J,K	12@25.2MHz	850	0.15	800
FHW1008IFR39□ST	0.39@25.2MHz	J,K	12@25.2MHz	480	0.29	600
FHW1008IFR47□ST	0.47@25.2MHz	J,K	20@25.2MHz	380	0.30	600
FHW1008IFR56□ST	0.56@25.2MHz	J,K	12@25.2MHz	330	0.42	600
FHW1008IFR68□ST	0.68@25.2MHz	J,K	12@25.2MHz	330	0.45	600
FHW1008IFR82□ST	0.82@25.2MHz	J,K	12@25.2MHz	300	0.62	600
FHW1008IF1R0□ST	1.0@25.2MHz	J,K	12@25.2MHz	300	0.55	580
FHW1008IF1R2□ST	1.2@7.96MHz	J,K	12@7.96MHz	250	0.75	550
FHW1008IF1R5□ST	1.5@7.96MHz	J,K	12@7.96MHz	230	0.85	400
FHW1008IF1R8□ST	1.8@7.96MHz	J,K	12@7.96MHz	168	0.95	320
FHW1008IF2R2□ST	2.2@7.96MHz	J,K	12@7.96MHz	150	1.30	315
FHW1008IF2R7□ST	2.7@7.96MHz	J,K	12@7.96MHz	100	1.40	300
FHW1008IF3R3□ST	3.3@7.96MHz	J,K	12@7.96MHz	80	1.50	280
FHW1008IF3R9□ST	3.9@7.96MHz	J,K	12@7.96MHz	60	1.55	250
FHW1008IF4R7□ST	4.7@7.96MHz	J,K	12@7.96MHz	50	1.75	210
FHW1008IF5R6□ST	5.6@7.96MHz	J,K	12@7.96MHz	40	1.90	190
FHW1008IF6R8□ST	6.8@7.96MHz	J,K	12@7.96MHz	35	2.00	175
FHW1008IF7R5□ST	7.5@7.96MHz	J,K	12@7.96MHz	30	2.10	170
FHW1008IF8R2□ST	8.2@7.96MHz	J,K	12@7.96MHz	25	2.20	160
FHW1008IF100□ST	10@2.52MHz	J,K	10@2.52MHz	25	2.50	155
FHW1008IF120□ST	12@2.52MHz	J,K	10@2.52MHz	20	2.60	145
FHW1008IF150□ST	15@2.52MHz	J,K	10@2.52MHz	20	3.00	130
FHW1008IF180□ST	18@2.52MHz	J,K	10@2.52MHz	20	3.00	130
FHW1008IF220□ST	22@2.52MHz	J,K	10@2.52MHz	18	3.90	105
FHW1008IF270□ST	27@2.52MHz	J,K	10@2.52MHz	10	4.00	100
FHW1008IF330□ST	33@2.52MHz	J,K	10@2.52MHz	8	4.80	85
FHW1008IF390□ST	39@2.52MHz	J,K	10@2.52MHz	7	5.00	80
FHW1008IF470□ST	47@2.52MHz	J,K	10@2.52MHz	7	5.70	60
FHW1008IF560□ST	56@2.52MHz	J,K	10@2.52MHz	6.5	6.00	55
FHW1008IF680□ST	68@2.52MHz	J,K	10@2.52MHz	6.5	6.70	50
FHW1008IF820□ST	82@2.52MHz	J,K	10@2.52MHz	6.5	7.50	45
FHW1008IF101□ST	100@0.796MHz	J,K	8@0.796MHz	4.5	11.00	40
FHW1008IF121□ST	120@0.796MHz	J,K	8@0.796MHz	3	13.00	30
FHW1008IF151□ST	150@0.796MHz	J,K	8@0.796MHz	3	15.00	25
FHW1008IF221□ST	220@0.796MHz	K	8@0.796MHz	2.5	18.00	20

1210 Type

型号 Part NO	电感量 Inductance (μ H)	偏差范围 Tolerance	Q 值 Q (Min)	自谐振频率 SRF (MHZ) Min	最大直流电阻 Rdc (Ω) Max	额定电流 Idc(mA) Max
FHW1210IFR12□ST	0.12@25.2MHz	J,K	20@25.2MHz	850	0.20	450
FHW1210IFR27□ST	0.27@25.2MHz	J,K	20@25.2MHz	700	0.20	450
FHW1210IFR33□ST	0.33@25.2MHz	J,K	20@25.2MHz	520	0.30	450
FHW1210IFR39□ST	0.39@25.2MHz	J,K	20@25.2MHz	500	0.30	450
FHW1210IFR47□ST	0.47@25.2MHz	J,K	20@25.2MHz	480	0.30	450
FHW1210IFR56□ST	0.56@25.2MHz	J,K	20@25.2MHz	450	0.30	450
FHW1210IFR68□ST	0.68@25.2MHz	J,K	20@25.2MHz	400	0.30	450
FHW1210IFR82□ST	0.82@25.2MHz	J,K	20@25.2MHz	350	0.30	450
FHW1210IF1R0□ST	1.0@7.96MHz	J,K	12@7.96MHz	220	0.30	450
FHW1210IF1R2□ST	1.2@7.96MHz	J,K	12@7.96MHz	210	0.30	450
FHW1210IF1R5□ST	1.5@7.96MHz	J,K	12@7.96MHz	200	0.40	450
FHW1210IF1R8□ST	1.8@7.96MHz	J,K	12@7.96MHz	195	0.50	450
FHW1210IF2R2□ST	2.2@7.96MHz	J,K	12@7.96MHz	175	0.60	450
FHW1210IF2R7□ST	2.7@7.96MHz	J,K	12@7.96MHz	120	0.70	420
FHW1210IF3R3□ST	3.3@7.96MHz	J,K	12@7.96MHz	80	1.10	380
FHW1210IF3R9□ST	3.9@7.96MHz	J,K	12@7.96MHz	75	1.20	360
FHW1210IF4R7□ST	4.7@7.96MHz	J,K	12@7.96MHz	60	1.30	350
FHW1210IF5R6□ST	5.6@7.96MHz	J,K	12@7.96MHz	50	2.00	320
FHW1210IF6R8□ST	6.8@7.96MHz	J,K	12@7.96MHz	35	1.50	310
FHW1210IF8R2□ST	8.2@7.96MHz	J,K	12@7.96MHz	35	1.60	305
FHW1210IF100□ST	10@2.52MHz	J,K	10@2.52MHz	30	1.00	300
FHW1210IF120□ST	12@2.52MHz	J,K	10@2.52MHz	25	1.20	265
FHW1210IF150□ST	15@2.52MHz	J,K	10@2.52MHz	22	2.00	225
FHW1210IF180□ST	18@2.52MHz	J,K	10@2.52MHz	22	2.10	210
FHW1210IF220□ST	22@2.52MHz	J,K	10@2.52MHz	20	2.40	200
FHW1210IF270□ST	27@2.52MHz	J,K	10@2.52MHz	18	2.70	180
FHW1210IF330□ST	33@2.52MHz	J,K	10@2.52MHz	15	2.90	160
FHW1210IF390□ST	39@2.52MHz	J,K	10@2.52MHz	16	4.70	150
FHW1210IF470□ST	47@2.52MHz	J,K	10@2.52MHz	10	5.20	140
FHW1210IF560□ST	56@2.52MHz	J,K	10@2.52MHz	8	5.60	125
FHW1210IF680□ST	68@2.52MHz	J,K	10@2.52MHz	5	4.70	110
FHW1210IF820□ST	82@2.52MHz	J,K	10@2.52MHz	5	5.60	100
FHW1210IF101□ST	100@0.796MHz	J,K	8@0.796MHz	5	6.80	95
FHW1210IF121□ST	120@0.796MHz	J,K	8@0.796MHz	4	7.90	85
FHW1210IF151□ST	150@0.796MHz	J,K	8@0.796MHz	4	9.00	80
FHW1210IF181□ST	180@0.796MHz	J,K	8@0.796MHz	3	14.50	70
FHW1210IF221□ST	220@0.796MHz	J,K	8@0.796MHz	2.6	16.50	65
FHW1210IF271□ST	270@0.796MHz	K	8@0.796MHz	2.5	18.00	60
FHW1210IF331□ST	330@0.796MHz	K	8@0.796MHz	2.3	19.00	55
FHW1210IF391□ST	390@0.796MHz	K	8@0.796MHz	2.2	21.50	45
FHW1210IF471□ST	470@0.796MHz	K	8@0.796MHz	2	22.50	40
FHW1210IF561□ST	560@0.796MHz	K	6@0.796MHz	1.5	28.00	30

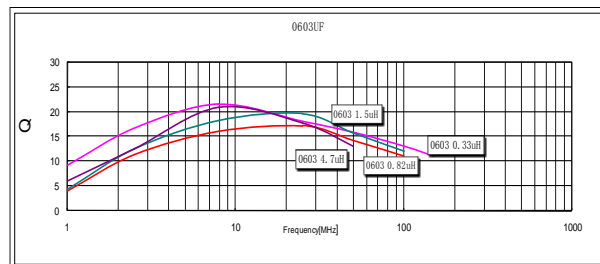
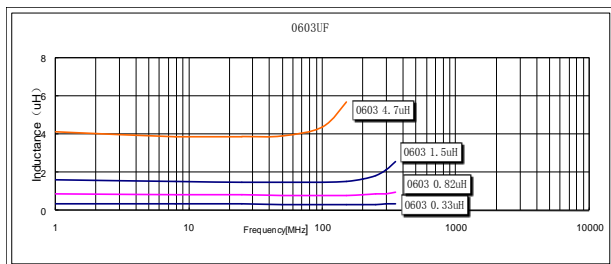
1812 Type

型号 Part NO	电感量 Inductance (nH)	偏差范围 Tolerance	Q 值 Q (Min)	自谐振频率 SRF (MHZ) Min	最大直流电阻 Rdc (Ω) Max	额定电流 Idc(mA) Max
FHW1812IFR33□ST	0.33@25.2MHz	J,K	10@25.2MHz	380	0.13	1000
FHW1812IFR47□ST	0.47@25.2MHz	J,K	10@25.2MHz	330	0.14	1000
FHW1812IFR56□ST	0.56@25.2MHz	J,K	10@25.2MHz	300	0.15	1000
FHW1812IFR82□ST	0.82@25.2MHz	J,K	10@25.2MHz	250	0.20	1000
FHW1812IF1R0□ST	1.0@7.96MHz	J,K	15@7.96MHz	200	0.22	1000
FHW1812IF1R2□ST	1.2@7.96MHz	J,K	15@7.96MHz	200	0.35	1000
FHW1812IF1R5□ST	1.5@7.96MHz	J,K	15@7.96MHz	180	0.32	1000
FHW1812IF1R8□ST	1.8@7.96MHz	J,K	15@7.96MHz	160	0.35	950
FHW1812IF2R2□ST	2.2@7.96MHz	J,K	15@7.96MHz	150	0.37	900
FHW1812IF2R7□ST	2.7@7.96MHz	J,K	15@7.96MHz	145	0.37	850
FHW1812IF3R3□ST	3.3@7.96MHz	J,K	15@7.96MHz	140	0.48	800
FHW1812IF3R9□ST	3.9@7.96MHz	J,K	15@7.96MHz	135	0.60	750
FHW1812IF4R7□ST	4.7@7.96MHz	J,K	15@7.96MHz	120	1.00	700
FHW1812IF5R6□ST	5.6@7.96MHz	J,K	15@7.96MHz	110	0.55	650
FHW1812IF6R8□ST	6.8@7.96MHz	J,K	15@7.96MHz	80	0.80	600
FHW1812IF8R2□ST	8.2@7.96MHz	J,K	15@7.96MHz	70	0.85	600
FHW1812IF100□ST	10@2.52MHz	J,K	10@2.52MHz	60	1.00	550
FHW1812IF120□ST	12@2.52MHz	J,K	10@2.52MHz	55	1.10	550
FHW1812IF150□ST	15@2.52MHz	J,K	10@2.52MHz	35	1.20	500
FHW1812IF180□ST	18@2.52MHz	J,K	10@2.52MHz	29	1.20	500
FHW1812IF220□ST	22@2.52MHz	J,K	10@2.52MHz	20	1.30	450
FHW1812IF270□ST	27@2.52MHz	J,K	10@2.52MHz	20	1.50	400
FHW1812IF330□ST	33@2.52MHz	J,K	10@2.52MHz	18	1.70	350
FHW1812IF390□ST	39@2.52MHz	J,K	10@2.52MHz	14	1.80	350
FHW1812IF470□ST	47@2.52MHz	J,K	10@2.52MHz	10	2.00	300
FHW1812IF560□ST	56@2.52MHz	J,K	10@2.52MHz	10	2.20	290
FHW1812IF680□ST	68@2.52MHz	J,K	10@2.52MHz	5.4	2.40	260
FHW1812IF820□ST	82@2.52MHz	J,K	10@2.52MHz	5.2	2.80	240
FHW1812IF101□ST	100@0.796MHz	J,K	10@0.796MHz	4	3.00	220
FHW1812IF121□ST	120@0.796MHz	J,K	10@0.796MHz	3.3	3.30	220
FHW1812IF151□ST	150@0.796MHz	J,K	10@0.796MHz	3	3.70	200
FHW1812IF181□ST	180@0.796MHz	J,K	10@0.796MHz	3	4.50	200
FHW1812IF221□ST	220@0.796MHz	J,K	10@0.796MHz	2.5	8.00	170
FHW1812IF271□ST	270@0.796MHz	J,K	10@0.796MHz	2.2	8.50	160
FHW1812IF331□ST	330@0.796MHz	K	10@0.796MHz	2	9.00	150
FHW1812IF391□ST	390@0.796MHz	K	10@0.796MHz	1.8	9.50	130
FHW1812IF471□ST	470@0.796MHz	K	8@0.796MHz	1.6	12.00	120
FHW1812IF561□ST	560@0.796MHz	K	8@0.796MHz	1.5	12.50	110
FHW1812IF681□ST	680@0.796MHz	K	8@0.796MHz	1.5	14.00	100
FHW1812IF751□ST	750@0.796MHz	K	8@0.796MHz	1.5	14.50	95
FHW1812IF821□ST	820@0.796MHz	K	8@0.796MHz	1.5	15.00	95
FHW1812IF102□ST	1000@0.252MHz	K	6@0.252MHz	1.4	16.50	90

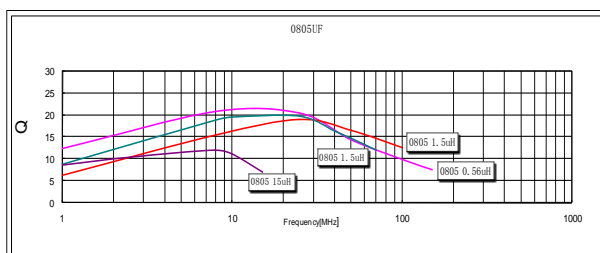
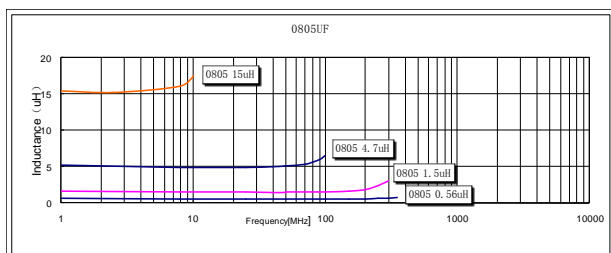
注：可根据客户需求做定制产品。 Note: Customized products can be made according to customer needs.

◆产品特性曲线图 Product Characteristic Curve

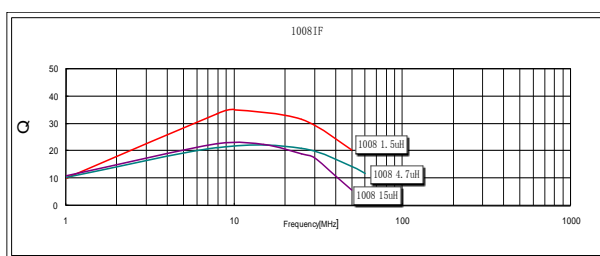
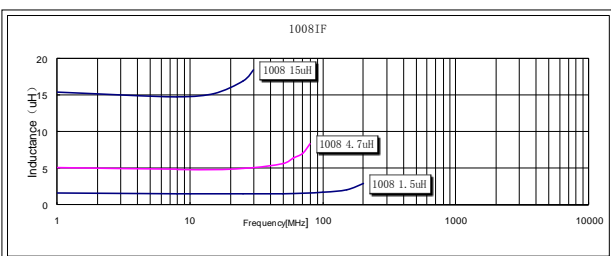
0603 Type



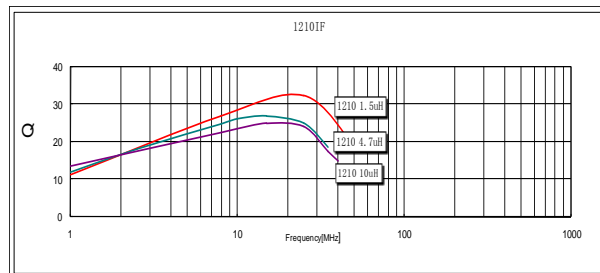
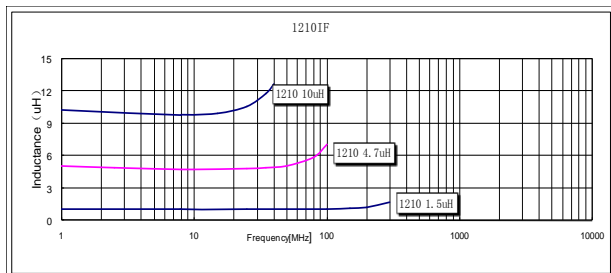
0805 Type



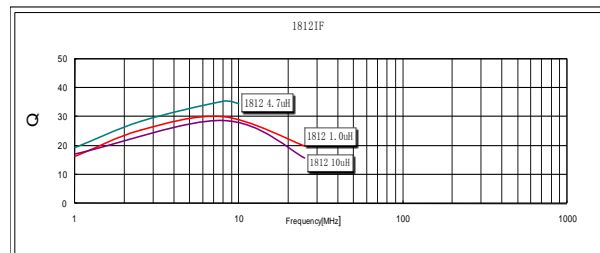
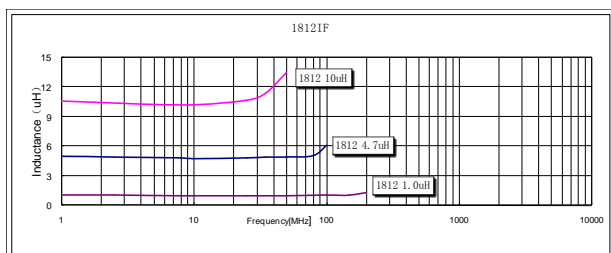
1008 Type



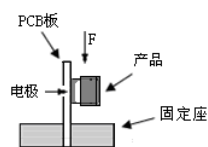
1210 Type



1812 Type



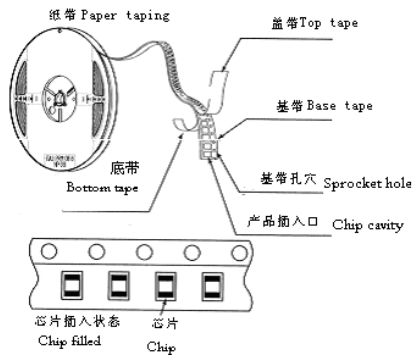
◆可靠性测试方法 Reliability Test Method

序号 No.	项目 Items	要求 Requirements	试验方法及备注 Test Methods and Remarks										
1	可焊性 Solder Ability	①外观无可见损伤痕迹; No visible mechanical damage. ②端电极表面焊锡覆盖率（不包含焊点）。 Electrode surface solder coverage （Except exposed wire）. FHW-UF/IF series: ≥80%。	在 245±3℃熔融的焊锡（96.5%Sn/3.0%Ag/0.5%Cu）中浸 置 3±0.3s。 Dip pads in flux and dip in solder pot(96.5Sn/3.0Ag/0.5Cu)at 245±3℃ for 3±0.3s.										
2	耐焊接热 Resistance To Soldering	①外观无可见损伤痕迹; No visible mechanical damage. ②感量变化不超过±5%; Inductance shall not change more than ±5%; ③Q 值变化不超过±20%。 Q shall not change more than±20%.	在 260±5℃熔融的焊锡（96.5%Sn/3.0%Ag/0.5%Cu）中浸 置 10±1s。 Dip pads in flux and dip in solder pot(96.5Sn/3.0Ag/0.5Cu)at 260±5℃ for 10±1s.										
3	振动 Vibration	①外观无可见损伤痕迹; No visible mechanical damage. ②感量变化不超过±5%; Inductance shall not change more than ±5%; ③Q 值变化不超过±20%。 Q shall not change more than±20%.	振幅 1.5mm, 频率 10Hz ~55Hz~10Hz（1 min.），每个方 向(X、Y、Z)保持 2 小时。 Frequency 10Hz to 55Hz to 10Hz in a period of 1 minute.for 2h in each of three(X、Y、Z) axes.										
4	端电极强度 Adhesion Of Electrode	①试验后端电极无脱落; The end electrode did not fall off after the test. ②外观无可见损伤痕迹。 No visible mechanical damage.	将产品焊在 PCB 板上，按下图、表所示方向及要求施加作 用力。Weld the product on the PCB board, and apply force as shown in the diagram, direction and requirement. <div><table><tr><th>尺寸规格 Size</th><th>施加力要求</th></tr><tr><td>0603 Series</td><td>7 N</td></tr><tr><td>0805 Series</td><td>13 N</td></tr><tr><td>1008 And Above Series</td><td>20 N</td></tr><tr><td colspan="2">Keep time: (10±1)s</td></tr></table></div>	尺寸规格 Size	施加力要求	0603 Series	7 N	0805 Series	13 N	1008 And Above Series	20 N	Keep time: (10±1)s	
尺寸规格 Size	施加力要求												
0603 Series	7 N												
0805 Series	13 N												
1008 And Above Series	20 N												
Keep time: (10±1)s													
5	耐低温 Low Temperature Resistance	①外观无可见损伤痕迹; No visible mechanical damage. ②感量变化不超过±5%; Inductance shall not change more than ±5%; ③Q 值变化不超过±20%。 Q shall not change more than±20%.	产品放置于温度-40±2℃的环境中存放 1000h Shall be subjected to-40±2℃ for 1000h										

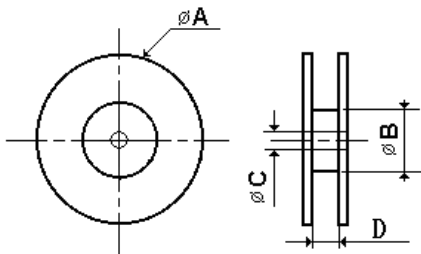
6	耐高温 High Temperature Resistance	①外观无可见损伤痕迹; No visible mechanical damage. ②感量变化不超过 $\pm 5\%$; Inductance shall not change more than $\pm 5\%$; ③Q 值变化不超过 $\pm 20\%$ 。 Q shall not change more than $\pm 20\%$.	产品放置于温度 $+85 \pm 5^\circ\text{C}$ 的环境中存放 1000h Shall be subjected to $+85 \pm 5^\circ\text{C}$ for 1000h
7	温度冲击 Temperature Shock	①外观无可见损伤痕迹; No visible mechanical damage. ②感量变化不超过 $\pm 5\%$; Inductance shall not change more than $\pm 5\%$; ③Q 值变化不超过 $\pm 20\%$ 。 Q shall not change more than $\pm 20\%$.	$+85^\circ\text{C}$ 30 分钟 \longleftrightarrow -40°C 30 分钟, 循环 100 次; $+85^\circ\text{C}$ 30minutes \longleftrightarrow -40°C 30minutes 100 Cycles.
8	高温负载 High Temperature Load	①外观无可见损伤痕迹; No visible mechanical damage. ②感量变化不超过 $\pm 5\%$; Inductance shall not change more than $\pm 5\%$; ③Q 值变化不超过 $\pm 20\%$ 。 Q shall not change more than $\pm 20\%$.	产品加额定电流在 $85 \pm 2^\circ\text{C}$ 温度条件下存放 1000h shall be store at $85 \pm 2^\circ\text{C}$ for 1000h with rated current applied.
9	恒定湿热 Static Humidity	①外观无可见损伤痕迹; No visible mechanical damage. ②感量变化不超过 $\pm 5\%$; Inductance shall not change more than $\pm 5\%$; ③Q 值变化不超过 $\pm 20\%$ 。 Q shall not change more than $\pm 20\%$.	将电感器放置在于湿度 $90\% \sim 95\% \text{RH}$, 温度 $60 \pm 2^\circ\text{C}$ 的环境中存放 1000h Inductors shall be subjected to $90\% \sim 95\% \text{RH}$. at $60 \pm 2^\circ\text{C}$ for 1000h
10	抗弯强度 Bending Strength	外观无可见损伤痕迹; No visible mechanical damage.	①将电感器安装于试验基板上; 在垂直方向施加力。Install the inductor on the test substrate; Apply force in the vertical direction. ②该板应在 $(1 \pm 0.5) \text{ mm/s}$ 的弯曲速率向下弯曲 $(2 \pm 0.2) \text{ mm}$, 保持时间 $(30 \pm 1) \text{ s}$ 。The epoxy plate should bend down to $(2 \pm 0.2) \text{ mm}$ at the bending rate of $(1 \pm 0.5) \text{ mm/s}$, Keep time $(30 \pm 1) \text{ sec}$.

◆包装 Packaging

* 编带图 Taping drawings

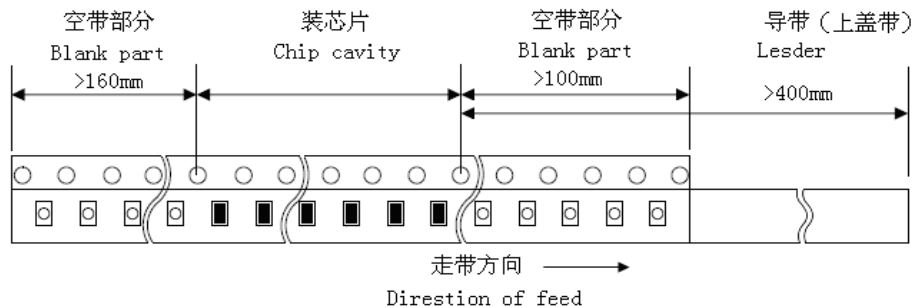


* 卷盘尺寸 Reel dimensions (Unit:mm)



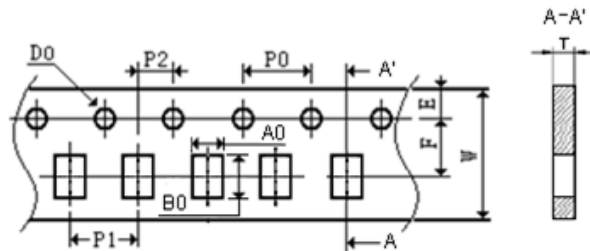
Part NO.	$\varnothing A$ typ.	$\varnothing B$ typ.	$\varnothing C$ typ.	D typ.
0603-1210	178	60	13	8.4
1812	1812	330	98	13

* 导带及空格部分 Leader and blank portion

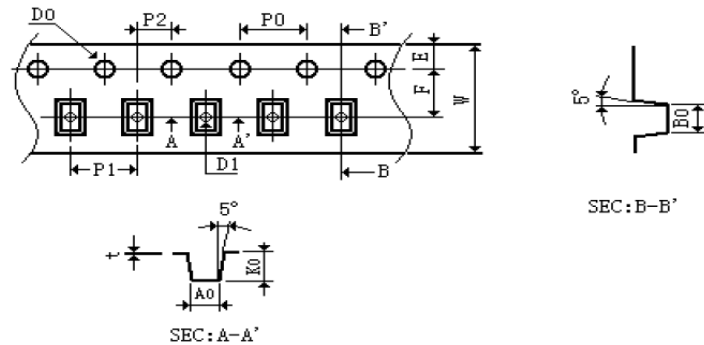


* 编带尺寸 Taping dimensions (Unit: mm)

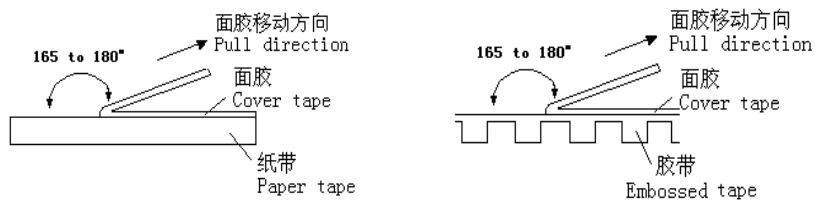
纸带 Paper tape



Part NO.	W	E	F	D0	P0	P1	P2	P0×10	A0	B0	T
0402	8.00	1.75	3.50	1.55	4	2	2	40	0.74	1.23	0.68
0603UF	8.00	1.75	3.50	1.55	4	4	2	40	1.20	1.85	1.00

塑料胶带 Embossed tape


Part NO.	W	E	F	D0	D1	P0	P1	P2	P0×10	t	A0	B0	K0
0603IF	8.00	1.75	3.50	1.55	0.60	4	4	2	40	0.22	1.20	1.85	1.10
0805	8.00	1.75	3.50	1.55	0.65	4	4	2	40	0.23	1.85	2.45	1.50
1008	8.00	1.75	3.50	1.55	0.65	4	4	2	40	0.25	2.73	2.90	2.34
1210	8.00	1.75	3.50	1.55	0.65	4	4	2	40	0.23	2.96	3.60	2.40
1812	12.00	1.75	5.50	1.55	1.50	4	8	2	40	0.25	3.22	4.82	2.98

*** 剥离力检验 Peeling off force**

盖带的剥离力要求 Peeling required

0603~1210 series : 10g~80g

1812 series : 10g~100g

测试条件 Test condition

盖带剥离速度: 300mm/min±10%

Speed of peeling off : 300mm/min±10%

盖带剥离角度: 165° ~180°

Angle of peeling off: 165°~180°

*** 包装数量 (单位: 粒) Packaging number (Unit: Pcs)**

类型 Size		0603	0805	1008	1210	1812
每卷数量 Per Reel		4000	3000	2000	2000	2000
每盒数量 Per Box	3 卷盒	12000	9000	6000	6000	/
	5 卷盒	20000	15000	10000	10000	8000
	10 卷盒	40000	30000	20000	20000	/
每箱数量 Per Case	1.5 盒箱	60000	45000	30000	30000	/
	2 盒箱	80000	60000	40000	40000	/
	3 盒箱	120000	90000	60000	60000	/
	4 盒箱	160000	120000	80000	80000	/
	6 盒箱	240000	180000	120000	120000	/
	大 3 盒箱	/	/	/	/	24000

◆推荐焊接条件 Recommended Soldering Conditions

* 焊接条件 Soldering Conditions

本产品使用回流焊接法。

Applicable soldering process to the products is reflow soldering.

* 焊剂要求 Flux, Solder

使用松香基助焊剂，禁止使用卤化物含量超过 0.2(wt)%的强酸性助焊剂。

Don't use highly acidic flux with halide content exceeding 0.2(wt)%(chlorine conversion value).

使用无铅焊料(96.5Sn /3.0Ag/0.5Cu)。

Using lead-free solder (96.5Sn /3.0Ag/0.5Cu)。

* 焊接要求 Soldering conditions

预热时，产品表温与焊料温度的温差最大不允许超出 150℃，焊接完冷却时，产品表温与溶剂温度之间的温差最大不超过 100℃。预热不足有可能引发产品表面裂纹，从而导致产品品质下降。

Pre-heating should be in such a way that the temperature difference between solder and ferrite surface is limited to 150℃ max. Also cooling into solvent after soldering should be in such way that the temperature difference is limited to 100℃ max. Un-enough pre-heating may cause cracks on the ferrite, resulting in the deterioration of product quality.

产品要在以下画出的曲线允许的范围进行焊接。其它焊接条件可能引起产品电极的腐蚀。当焊接重复时，允许的时间为第一次做的累计时间。

Products should be soldered within the following allowable range indicated by the slanted line. The excessive soldering conditions may cause the corrosion of the electrode. When soldering is repeated, allowable time is the accumulated time.

* 回流焊曲线 Reflow soldering profile

预热条件: 150~200℃/60~120 秒

Preheat condition: 150 ~200℃/60~120sec

最大温度: 260℃

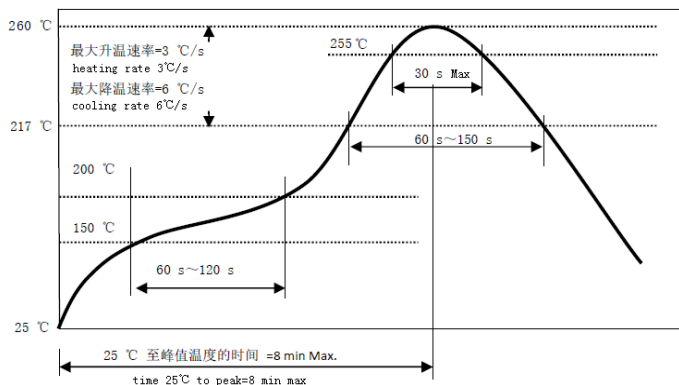
max temp: 260 °C

最高温的最大时间: 10 秒

max time at max temp: 10 sec

回流焊次数: 最多 3 次

Allowed Reflow time: 3x max



* 手工焊接 Iron soldering

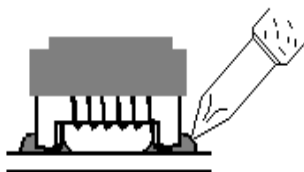
烙铁温度: 350℃ (Max)

功率: 最大为 30W

烙铁停留时间: <5S (注意不要将烙铁碰到产品线圈及封装层)。

Perform soldering at 350℃ on 30W max.

Soldering Time: < 5S (Take care not to apply the tip of the soldering iron to the terminal electrodes)。



◆贮存方法 Storage Methods

* 存储期限 Storage period

距电感公司出厂检验时间 1 年内正常使用。若时间超过 1 年，应检查焊接性能后方可使用。

Please use the products within 1 year since the factory inspection before the delivery, the welding performance should be checked before use if the storage time exceeds 1 year.

* 存储条件 Storage conditions

存放货物的库房应满足以下条件：温度：-10 ~ +40℃，相对湿度：30 ~ 70%。

Products should be storage in the warehouse on the following conditions:

Temperature : -10~+40℃ Humidity: 30~70% relative humidity

* 禁止将产品保管在腐蚀性物质中，如硫磺、氯气或酸，否则将引起端头氧化，导致降低焊接性。Don't keep products in corrosive gases such as sulfur, chlorine gas or acid, or it may cause oxidation of Electrodes resulting in poor solder ability.

* 为了避免受潮气、灰尘等物质的影响，产品应保管于货架上。

Products should be stored on the pallet for the prevention of the influence from humidity, dust and so on.

* 产品保管在库房中，应避免热冲击、振动以及直接光照等等。

Products should be stored in the warehouse without heat shock, vibration, direct sunlight and so on.

* 产品应密封包装。

Products should be stored under the airtight packaged condition.

◆使用注意事项 Precautions For Use

* 本证书保证我司产品作为一个单体时的质量情况，当我司产品被安装到贵司产品上时请保证贵司的产品已根据贵司的规范进行了有效评价和确认。

This product specification guarantees the quality of our product as a single unit, Please make sure that your product has been evaluated and confirmed against your specifications when our product is mounted to your product.

* 如果贵司对我司产品的试用已超过了本测试规范所界定的产品功能，对于此所引发的失效我司将不予保证。

We can't warrant against failure caused by any use of our product that deviates from the intended use as described in this product specification.

* 为防止断线，请不要使用锋利的物体接触线圈，如镊子。

Do not touch wire with sharp objects such as tweezers to prevent wire breakage.

正确方法 Correct method (夹端头两端 Tweezers should support on both sides of the chip)	错误方法 Wrongly method (夹到产品线圈 Tweezers should not support on enameled wire of the chip)
 	     

[illegible]

Note: The above content is the specification of products. Fenghua reserves the right to modify this content without prior notice, and any product changes will be notified to customers via PCN.