

■车规绕线型片式电感器

Automotive Grade Wire Wound Chip Inductors

◆特征 Feature

- * 体积小，适合高密度表面贴装

Small Size Suitable For SMT.

- * 精度高、Q 值高

High Q Value And Tight Inductance Tolerance.

- * 本产品满足 AEC-Q200 汽车标准相关条款

The products involved in this letter are compliant with AEC-Q200 standard.



◆应用 Application

- * 推荐用于汽车信息系统、影音娱乐系统、车身与舒适系统等。

recommended for automobile information system, audio-visual entertainment system, body and comfort system, etc.

◆型号表示法 Part Number

AHW	0603	UC	068	J	S	T
①	②	③	④	⑤	⑥	⑦

①产品类型 Product Type:

AHW: 车规绕线型片式电感器系列

AHW: Automotive Grade Wire Wound Inductor Series

②尺寸 Dimensions: 0402(1.0×0.5mm)、0603 (1.6×0.8mm)、0805 (2.0×1.2mm)

③材料代号 Material Code: UC---陶瓷芯 Ceramic Core

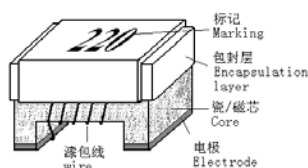
④标称电感量 Inductance: 1N0=1.0nH、010=10nH、R10=100nH、1R0=1.0μH、100=10μH

⑤标称电感值偏差 Tolerance: F---±1%; G---±2%; J---±5%; K---±10%; M---±20%

⑥电极表面镀层材料 Terminal: G---金端头 Gold; S---锡端头 Tin

⑦包装 Packaging: T: 编带包装 Tape & Reel

◆产品结构 Product Structure



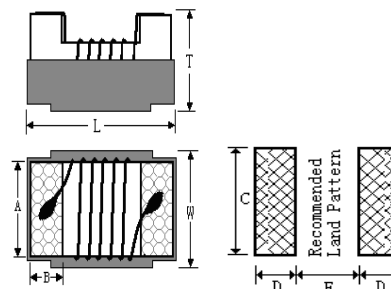
序号 No.	部位 Component	材料 Material
1	瓷芯Core	陶瓷体Al ₂ O ₃
2	电极Electrode	锡或金Sn or Au
3	漆包线wire	铜Cu
4	封装层encapsulation layer	树脂UV Adhesive
5	标识Marking	油墨UV printing ink

* 0402及0603系列产品无印标识 0402&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)
1005 (0402)	1.19 (0.047)	0.66 (0.026)	0.60 (0.024)	0.50 (0.020)	0.23 (0.009)	0.66 (0.026)	0.36 (0.014)	0.46 (0.018)
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)
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)



◆工作温度范围 Operating Temperature Range

工作温度范围: -40℃~+125℃

Operating Temperature Range: -40℃~+125℃

◆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.

0402 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 () Max	额定电流 Idc(mA) Max
AHW0402UC1N0□ST	1.0@250MHz	K	13@250MHz	10000	0.045	1360
AHW0402UC1N2□ST	1.2@250MHz	K	8@250MHz	10000	0.135	640
AHW0402UC1N8□ST	1.8@250MHz	K	16@250MHz	6000	0.070	1040
AHW0402UC1N9□ST	1.9@250MHz	K	16@250MHz	6000	0.070	1040
AHW0402UC2N0□ST	2.0@250MHz	J,K	18@250MHz	6000	0.070	1040
AHW0402UC2N2□ST	2.2@250MHz	J,K	18@250MHz	6000	0.070	960
AHW0402UC2N4□ST	2.4@250MHz	J,K	16@250MHz	6000	0.080	790
AHW0402UC2N5□ST	2.5@250MHz	J,K	15@250MHz	6000	0.120	640
AHW0402UC2N7□ST	2.7@250MHz	J,K	15@250MHz	6000	0.120	640
AHW0402UC2N9□ST	2.9@250MHz	J,K	8@250MHz	6000	0.300	400
AHW0402UC3N0□ST	3.0@250MHz	J,K	8@250MHz	6000	0.300	400
AHW0402UC3N3□ST	3.3@250MHz	J,K	20@250MHz	6000	0.066	840
AHW0402UC3N6□ST	3.6@250MHz	G,J,K	20@250MHz	6000	0.066	840
AHW0402UC3N9□ST	3.9@250MHz	G,J,K	20@250MHz	6000	0.066	840
AHW0402UC4N0□ST	4.0@250MHz	G,J,K	20@250MHz	6000	0.066	840
AHW0402UC4N2□ST	4.2@250MHz	G,J,K	20@250MHz	6000	0.091	700
AHW0402UC4N3□ST	4.3@250MHz	G,J,K	20@250MHz	6000	0.091	700
AHW0402UC4N7□ST	4.7@250MHz	G,J,K	18@250MHz	4500	0.200	640
AHW0402UC5N1□ST	5.1@250MHz	G,J,K	18@250MHz	4800	0.083	800
AHW0402UC5N6□ST	5.6@250MHz	G,J,K	20@250MHz	4800	0.083	760
AHW0402UC6N2□ST	6.2@250MHz	G,J,K	23@250MHz	4800	0.083	760
AHW0402UC6N8□ST	6.8@250MHz	G,J,K	23@250MHz	4800	0.260	680
AHW0402UC7N5□ST	7.5@250MHz	G,J,K	23@250MHz	4800	0.100	680
AHW0402UC8N2□ST	8.2@250MHz	G,J,K	25@250MHz	4400	0.100	680
AHW0402UC8N7□ST	8.7@250MHz	G,J,K	25@250MHz	4K0	0.200	480
AHW0402UC9N0□ST	9.0@250MHz	G,J,K	25@250MHz	4160	0.100	680
AHW0402UC9N5□ST	9.5@250MHz	G,J,K	25@250MHz	4000	0.200	480
AHW0402UC010□ST	10@250MHz	G,J,K	25@250MHz	3900	0.200	480

AHW0402UC011□ST	11@250MHz	G,J,K	25@250MHz	3680	0.120	640
AHW0402UC012□ST	12@250MHz	J,K	25@250MHz	3600	0.120	640
AHW0402UC013□ST	13@250MHz	G,J,K	25@250MHz	3450	0.210	440
AHW0402UC015□ST	15@250MHz	G,J,K	25@250MHz	3280	0.300	560
AHW0402UC016□ST	16@250MHz	G,J,K	25@250MHz	3100	0.220	560
AHW0402UC018□ST	18@250MHz	G,J,K	25@250MHz	3100	0.230	420
AHW0402UC019□ST	19@250MHz	G,J,K	25@250MHz	3040	0.200	480
AHW0402UC020□ST	20@250MHz	G,J,K	25@250MHz	3000	0.250	420
AHW0402UC022□ST	22@250MHz	G,J,K	25@250MHz	2800	0.300	400
AHW0402UC023□ST	23@250MHz	G,J,K	22@250MHz	2720	0.380	310
AHW0402UC024□ST	24@250MHz	G,J,K	25@250MHz	2700	0.300	400
AHW0402UC027□ST	27@250MHz	G,J,K	24@250MHz	2480	0.520	280
AHW0402UC030□ST	30@250MHz	G,J,K	25@250MHz	2350	0.500	400
AHW0402UC033□ST	33@250MHz	G,J,K	24@250MHz	2350	0.650	350
AHW0402UC036□ST	36@250MHz	G,J,K	25@250MHz	2320	0.600	250
AHW0402UC039□ST	39@250MHz	G,J,K	25@250MHz	2100	0.750	200
AHW0402UC040□ST	40@250MHz	G,J,K	25@250MHz	2240	0.600	220
AHW0402UC043□ST	43@250MHz	J,K	25@250MHz	2030	0.810	100
AHW0402UC047□ST	47@250MHz	G,J,K	25@250MHz	2100	0.830	150
AHW0402UC051□ST	51@250MHz	J,K	25@250MHz	1750	0.820	100
AHW0402UC056□ST	56@250MHz	G,J,K	25@250MHz	1760	0.970	100
AHW0402UC062□ST	62@250MHz	G,J,K	25@250MHz	1620	1.120	100
AHW0402UC068□ST	68@250MHz	G,J,K	25@250MHz	1620	1.120	100
AHW0402UC075□ST	75@250MHz	G,J,K	25@250MHz	1400	1.630	50
AHW0402UC082□ST	82@250MHz	G,J,K	25@250MHz	1260	1.700	50
AHW0402UCR10□ST	100@250MHz	G,J,K	25@250MHz	1160	2.000	30
AHW0402UCR12□ST	120@250MHz	G,J,K	25@250MHz	1100	2.200	30

0603 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 () Max	额定电流 Idc(mA) Max
AHW0603UC1N6□ST	1.6@250MHz	K	18@250MHz	12500	0.040	700
AHW0603UC1N7□ST	1.7@250MHz	J,K	18@250MHz	12500	0.045	700
AHW0603UC1N8□ST	1.8@250MHz	K	16@250MHz	12500	0.045	700
AHW0603UC2N0□ST	2.0@250MHz	J,K	12@250MHz	10000	0.090	700
AHW0603UC2N2□ST	2.2@250MHz	K	12@250MHz	10000	0.090	700
AHW0603UC3N3□ST	3.3@250MHz	K	20@250MHz	5900	0.075	700
AHW0603UC3N6□ST	3.6@250MHz	J,K	22@250MHz	5900	0.075	700
AHW0603UC3N9□ST	3.9@250MHz	J,K	22@250MHz	6900	0.080	700
AHW0603UC4N3□ST	4.3@250MHz	J,K	22@250MHz	5900	0.075	700
AHW0603UC4N7□ST	4.7@250MHz	J,K	20@250MHz	5800	0.116	700
AHW0603UC5N1□ST	5.1@250MHz	J,K	20@250MHz	5700	0.120	700
AHW0603UC6N0□ST	6.0@250MHz	J,K	27@250MHz	5700	0.110	700
AHW0603UC6N2□ST	6.2@250MHz	J,K	27@250MHz	5700	0.110	700
AHW0603UC6N8□ST	6.8@250MHz	G,J,K	27@250MHz	5800	0.110	700
AHW0603UC7N5□ST	7.5@250MHz	G,J,K	28@250MHz	4800	0.110	700

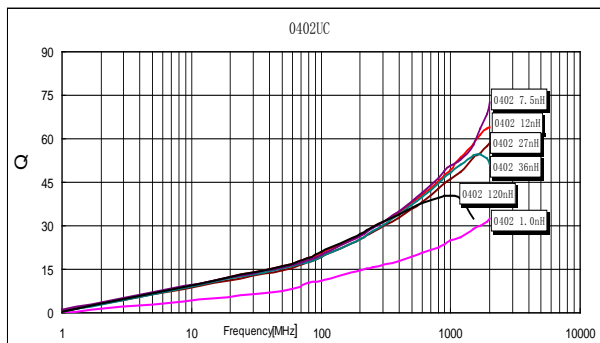
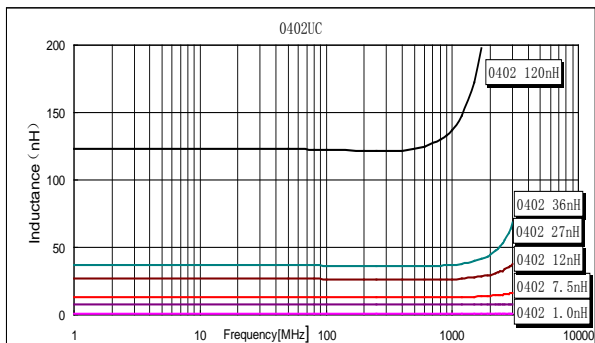
AHW0603UC8N2□ST	8.2@250MHz	G,J,K	28@250MHz	4700	0.120	700
AHW0603UC8N7□ST	8.7@250MHz	G,J,K	28@250MHz	4600	0.120	700
AHW0603UC9N1□ST	9.1@250MHz	G,J,K	26@250MHz	4500	0.150	700
AHW0603UC9N5□ST	9.5@250MHz	G,J,K	26@250MHz	5400	0.150	700
AHW0603UC010□ST	10@250MHz	G,J,K	31@250MHz	4800	0.130	700
AHW0603UC011□ST	11@250MHz	G,J,K	33@250MHz	4000	0.130	700
AHW0603UC012□ST	12@250MHz	G,J,K	35@250MHz	4000	0.130	700
AHW0603UC013□ST	13@250MHz	G,J,K	30@250MHz	4000	0.140	700
AHW0603UC014□ST	14@250MHz	G,J,K	35@250MHz	4000	0.140	700
AHW0603UC015□ST	15@250MHz	G,J,K	30@250MHz	4000	0.150	700
AHW0603UC016□ST	16@250MHz	G,J,K	34@250MHz	3300	0.160	700
AHW0603UC018□ST	18@250MHz	G,J,K	35@250MHz	3100	0.170	700
AHW0603UC020□ST	20@250MHz	G,J,K	38@250MHz	3000	0.190	700
AHW0603UC022□ST	22@250MHz	G,J,K	38@250MHz	3000	0.190	700
AHW0603UC024□ST	24@250MHz	G,J,K	37@250MHz	2650	0.200	700
AHW0603UC025□ST	25@250MHz	G,J,K	38@250MHz	2600	0.210	700
AHW0603UC027□ST	27@250MHz	G,J,K	36@250MHz	2800	0.220	600
AHW0603UC030□ST	30@250MHz	G,J,K	37@250MHz	2250	0.220	600
AHW0603UC033□ST	33@250MHz	G,J,K	36@250MHz	2300	0.220	600
AHW0603UC036□ST	36@250MHz	G,J,K	36@250MHz	2080	0.250	600
AHW0603UC039□ST	39@250MHz	G,J,K	40@250MHz	2200	0.250	600
AHW0603UC043□ST	43@250MHz	G,J,K	36@250MHz	2000	0.280	600
AHW0603UC047□ST	47@200MHz	G,J,K	36@200MHz	2000	0.280	600
AHW0603UC049□ST	49@200MHz	G,J,K	36@200MHz	2000	0.280	600
AHW0603UC050□ST	50@200MHz	G,J,K	36@200MHz	1900	0.295	600
AHW0603UC051□ST	51@200MHz	G,J,K	36@200MHz	1900	0.300	600
AHW0603UC056□ST	56@200MHz	G,J,K	38@200MHz	1900	0.280	600
AHW0603UC068□ST	68@200MHz	G,J,K	36@200MHz	1700	0.340	600
AHW0603UC072□ST	72@150MHz	G,J,K	34@150MHz	1700	0.530	400
AHW0603UC075□ST	75@150MHz	G,J,K	30@150MHz	1400	0.600	400
AHW0603UC082□ST	82@150MHz	G,J,K	34@150MHz	1700	0.550	400
AHW0603UC091□ST	91@150MHz	G,J,K	30@150MHz	1400	0.630	400
AHW0603UCR10□ST	100@150MHz	G,J,K	30@150MHz	1400	0.630	400
AHW0603UCR11□ST	110@150MHz	G,J,K	32@150MHz	1350	0.670	300
AHW0603UCR12□ST	120@150MHz	G,J,K	32@150MHz	1300	0.730	300
AHW0603UCR15□ST	150@150MHz	G,J,K	28@150MHz	990	0.800	280
AHW0603UCR16□ST	160@100MHz	G,J,K	25@100MHz	990	1.250	250
AHW0603UCR18□ST	180@100MHz	G,J,K	25@100MHz	990	1.450	240
AHW0603UCR20□ST	200@100MHz	G,J,K	25@100MHz	900	1.550	200
AHW0603UCR22□ST	220@100MHz	G,J,K	25@100MHz	900	2.100	200
AHW0603UCR25□ST	250@100MHz	G,J,K	25@100MHz	822	3.550	120
AHW0603UCR27□ST	270@100MHz	G,J,K	24@100MHz	900	2.300	170
AHW0603UCR30□ST	300@100MHz	G,J,K	24@100MHz	1000	3.000	100
AHW0603UCR33□ST	330@100MHz	G,J,K	25@100MHz	900	3.890	100
AHW0603UCR39□ST	390@100MHz	G,J,K	25@100MHz	800	4.350	100
AHW0603UCR47□ST	470@100MHz	G,J,K	25@100MHz	700	7.000	75

0805 Type

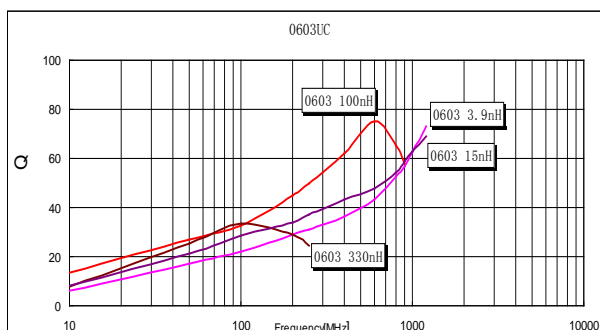
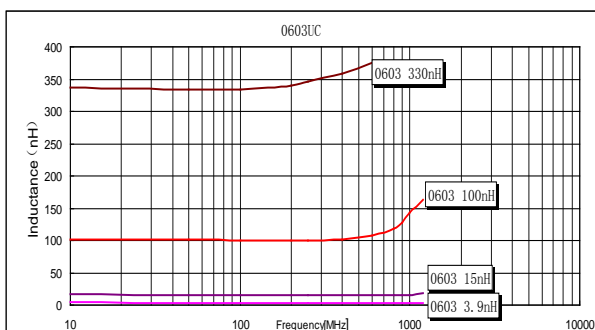
型号 Part NO	电感量 Inductance (nH)	偏差范围 Tolerance	Q 值 Q (Min)	自谐振频率 SRF (MHZ) Min	最大直流电阻 Rdc () Max	额定电流 Idc(mA) Max
AHW0805UC2N2□GT	2.2@250MHz	K	50@1500MHz	8500	0.030	800
AHW0805UC2N7□GT	2.7@250MHz	J,K	50@1500MHz	8000	0.045	800
AHW0805UC3N3□GT	3.3@250MHz	K	35@1500MHz	7900	0.090	600
AHW0805UC4N7□GT	4.7@250MHz	K	40@1000MHz	6000	0.050	600
AHW0805UC5N6□GT	5.6@250MHz	J,K	50@1000MHz	5500	0.065	600
AHW0805UC6N8□GT	6.8@250MHz	J,K	50@1000MHz	5500	0.110	600
AHW0805UC8N2□GT	8.2@250MHz	J,K	35@1000MHz	4700	0.200	600
AHW0805UC010□GT	10@250MHz	G,J,K	50@500MHz	4200	0.150	600
AHW0805UC012□GT	12@250MHz	G,J,K	50@500MHz	4000	0.150	600
AHW0805UC015□GT	15@250MHz	G,J,K	45@500MHz	3400	0.170	600
AHW0805UC018□GT	18@250MHz	G,J,K	55@500MHz	3300	0.200	600
AHW0805UC022□GT	22@250MHz	G,J,K	55@500MHz	2600	0.220	500
AHW0805UC027□GT	27@250MHz	G,J,K	55@500MHz	2500	0.250	500
AHW0805UC033□GT	33@250MHz	G,J,K	55@500MHz	2050	0.270	500
AHW0805UC039□GT	39@250MHz	G,J,K	55@500MHz	2000	0.290	500
AHW0805UC047□GT	47@200MHz	G,J,K	55@500MHz	1650	0.310	500
AHW0805UC056□GT	56@200MHz	G,J,K	55@500MHz	1550	0.340	500
AHW0805UC068□GT	68@200MHz	G,J,K	55@500MHz	1450	0.380	500
AHW0805UC075□GT	75@200MHz	G,J,K	55@500MHz	1400	0.400	400
AHW0805UC082□GT	82@150MHz	G,J,K	55@500MHz	1300	0.420	400
AHW0805UCR10□GT	100@150MHz	G,J,K	50@500MHz	1200	0.460	400
AHW0805UCR12□GT	120@150MHz	G,J,K	45@250MHz	1100	0.510	400
AHW0805UCR15□GT	150@100MHz	G,J,K	45@250MHz	920	0.560	400
AHW0805UCR18□GT	180@100MHz	G,J,K	45@250MHz	870	0.640	400
AHW0805UCR22□GT	220@100MHz	G,J,K	40@250MHz	850	1.050	400
AHW0805UCR27□GT	270@100MHz	G,J,K	40@250MHz	650	1.100	350
AHW0805UCR33□GT	330@100MHz	J,K	40@250MHz	600	1.400	310
AHW0805UCR39□GT	390@100MHz	J,K	40@250MHz	560	1.500	290
AHW0805UCR47□GT	470@50MHz	J,K	33@K0MHz	375	2.000	250
AHW0805UCR56□GT	560@25MHz	J,K	23@50MHz	340	1.900	230
AHW0805UCR68□GT	680@25MHz	J,K	23@50MHz	300	2.100	190
AHW0805UCR75□GT	750@25MHz	J,K	23@50MHz	280	2.120	180
AHW0805UCR82□GT	820@25MHz	J,K	23@50MHz	250	2.140	180
AHW0805UCR91□GT	910@25MHz	J,K	20@50MHz	220	2.280	180
AHW0805UC1R0□GT	1000@25MHz	J,K	20@50MHz	200	2.400	170
AHW0805UC1R2□GT	1200@7.9MHz	J,K	18@50MHz	180	2.550	170
AHW0805UC1R5□GT	1500@7.9MHz	J,K	18@50MHz	170	2.800	160
AHW0805UC1R8□GT	1800@7.9MHz	J,K	18@50MHz	140	3.800	150
AHW0805UC2R2□GT	2200@7.9MHz	J,K	16@7.9MHz	50	4.200	150

◆ 产品特性曲线图 Product Characteristic Curve

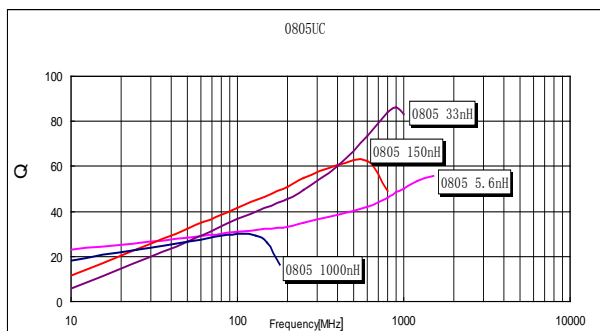
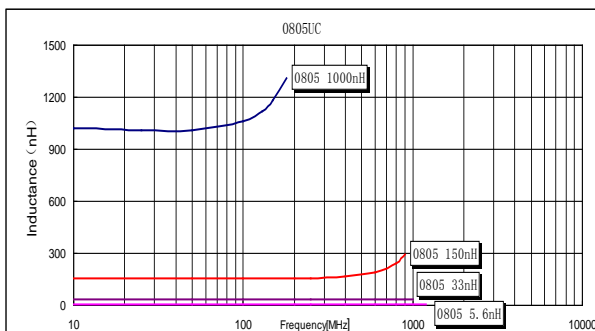
AHW0402 Type



AHW0603 Type

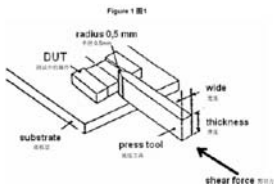


AHW0805 Type



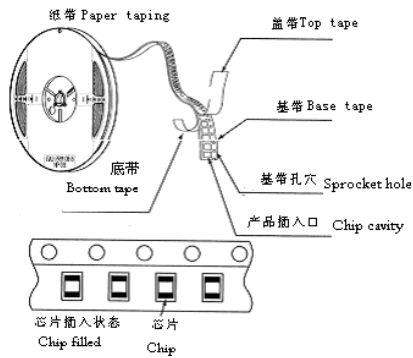
◆可靠性测试方法 Reliability Test Method

序号 No.	项目 Items	要求 Requirements	试验方法及备注 Test Methods and Remarks
1	高温存储 High Temperature Exposure (Storage)	无可见损伤; 电感量: $\Delta L/L \leq \pm 5\%$; Q 值: $\Delta Q/Q \leq \pm 20\%$. No Visible damage; Inductance: $\Delta L/L \leq \pm 5\%$; Q: $\Delta Q/Q \leq \pm 20\%$.	温度 125°C; 不通电; 持续时间 1000h; 试验结束后 (24±4)h 内进行电性能测量。 Temperature 125°C; Unpowered; Duration 1000h; Measurement at (24±4) hours after test conclusion.
2	温度循环 Temperature Cycling	无可见损伤; 电感量: $\Delta L/L \leq \pm 5\%$; Q 值: $\Delta Q/Q \leq \pm 20\%$. No Visible damage; Inductance: $\Delta L/L \leq \pm 5\%$; Q: $\Delta Q/Q \leq \pm 20\%$.	高温 125°C; 低温 -40°C; 高、低温下暴露时间各 30 分钟; 转换时间 ≤ 1min; 循环次数 1000 次。 试验结束后 24±4 小时内进行测试。 High Temperature +125°C; low temperature -40°C; Duration at each temperature 30 min; Transition time ≤ 1 min. Severity 1000 cycles; Measurement at 24±4 hours after test conclusion.
3	偏高湿度(高温高湿) Biased Humidity	无可见损伤; 电感量: $\Delta L/L \leq \pm 5\%$; Q 值: $\Delta Q/Q \leq \pm 20\%$. No Visible damage; Inductance: $\Delta L/L \leq \pm 5\%$; Q: $\Delta Q/Q \leq \pm 20\%$.	温度 85°C; 湿度 85RH%; 持续时间 1000 小时, 不通电。 试验结束后 24±4 小时内进行测试。 Temperature 85°C; Relative humidity 85% ; Duration 1000 h; Unpowered. Measurement at 24±4 hours after test conclusion.
4	工作寿命 Operational Life	无可见损伤; 电感量: $\Delta L/L \leq \pm 5\%$; Q 值: $\Delta Q/Q \leq \pm 20\%$. No Visible damage; Inductance: $\Delta L/L \leq \pm 5\%$; Q: $\Delta Q/Q \leq \pm 20\%$.	温度 125°C; 施加电流: 额定电流; 持续时间: 1000 小时。 试验结束后 24±4 小时内进行测试。 Temperature 125°C; Test current: Rated current; Duration 1000 h; Measurement at 24±4 hours after test conclusion.
5	机械冲击 Mechanical Shock	无可见损伤; 电感量: $\Delta L/L \leq \pm 5\%$; Q 值: $\Delta Q/Q \leq \pm 20\%$. No Visible damage; Inductance: $\Delta L/L \leq \pm 5\%$; Q: $\Delta Q/Q \leq \pm 20\%$.	正半弦波; 峰值加速度 100g; 脉冲持续时间 6ms; 三轴六向各 3 次, 共 18 次。 Half sine wave. Peak value 100g. Normal duration 6 ms; Three shocks in each direction shall be applied along the three mutually perpendicular axes of the test specimen (18 shocks)

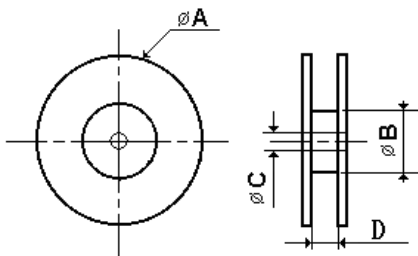
6	振动 Vibration	无可见损伤; 电感量: $\Delta L/L \leq \pm 5\%$; Q 值: $\Delta Q/Q \leq \pm 20\%$. No Visible damage; Inductance: $\Delta L/L \leq \pm 5\%$; Q: $\Delta Q/Q \leq \pm 20\%$.	频率 10Hz~2000Hz; 加速度 5g; 一个循环 20 分钟; X、Y、Z 三个方向每个方向 12 个循环,共 36 个循环; . The entire frequency range of 10 to 2000 Hz and return to 10 Hz shall be traversed in 20 minutes. This cycle shall be preformed 12 time in each of three mutually perpendicular directions (total of 36 times), so that the motion shall be applied for a total period of approximately 12 hours. Peak value 5g.
7	耐焊接热 Resistance to Soldering Heat	无可见损伤; 电感量: $\Delta L/L \leq \pm 5\%$; Q 值: $\Delta Q/Q \leq \pm 20\%$. No Visible damage; Inductance: $\Delta L/L \leq \pm 5\%$; Q: $\Delta Q/Q \leq \pm 20\%$.	模拟电磁器件回流焊, 3 次 Simulate electromagnetic device reflow soldering, 3 times
8	可焊性 Solder Ability	无可见损伤; 电极面 95%以上覆盖新的焊料(不包含焊点)。 95% or more of electrode area shall be coated by new solder (Except exposed wire) .	焊槽法; 无铅焊锡; 温度(245±5) °C; 浸渍时间 (3±0.3) s。 Solder bath; Lead-free solder; Temperature (245±5) °C; Immersion timer (3±0.3) seconds.
9	弯曲 Board Flex	无可见损伤; 直流电阻: 符合性能标准值。 No Visible damage; Rdc: Meets performance standard values.	电感器安装在厚 1.6mm 环氧玻璃布板上, 以 1mm/s 的速度向下弯曲 2mm; 维持时间 60s±5s。 The testing samples shall be mounted on a 100mm×40mm FR4 PCB board, which is 1.6mm±0.2mm thick. Bending shall be applied to the 2.0mm with 1.0mm/sec; Duration: 60s(+5s)。
10	端子强度 Terminal Strength (SMD)	无可见损伤; No Visible damage.	试样安装在环氧玻璃布板上, 施加 0402 规格: 5N, ≥0603 规格: 17.7N 的力到试样的侧面, 保持 60s±1s。 The testing samples shall be mounted on the testing epoxy boards, exerting force on side of the samples, Size 0402: 5N ; ≥ Size 0603: 17.7N, Duration 60s±1s。 

◆包装 Packaging

* 编带图 Taping drawings

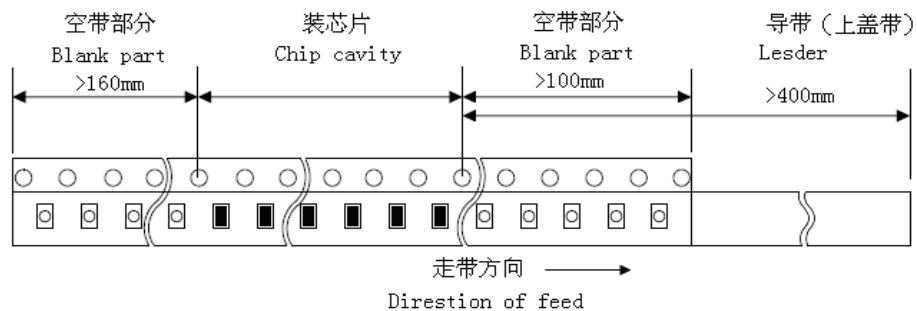


* 卷盘尺寸 Reel dimensions (Unit:mm)



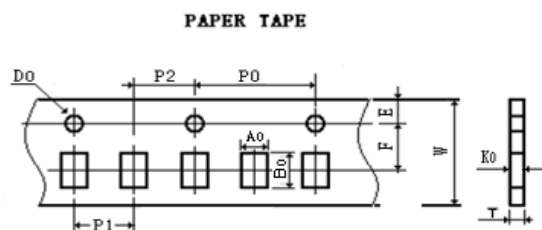
Part NO.	ΦA typ.	ΦB typ.	ΦC typ.	D typ.
0402-0805	178	60	13	8.4

* 导带及空格部分 Leader and blank portion



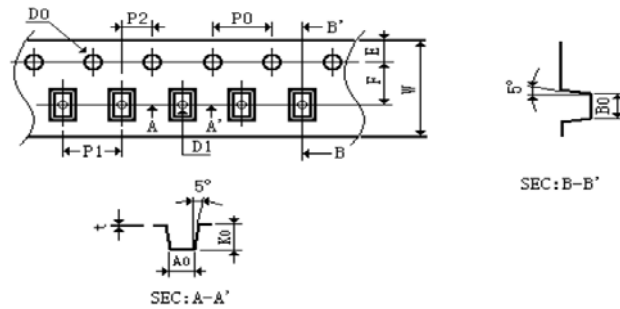
* 编带尺寸 Taping dimensions (Unit: mm)

纸带 Paper tape



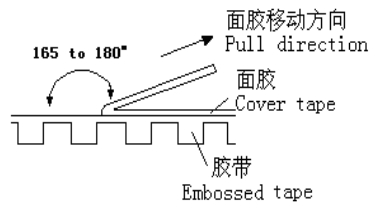
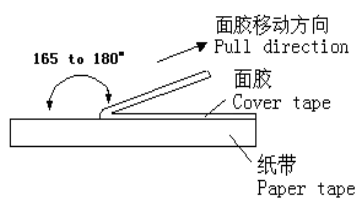
Part NO.	W	E	F	D0	P0	P1	P2	P0×10	A0	B0	K0	T
0402	8.00	1.75	3.50	1.55	4	2	2	40	0.74	1.23	0.60	0.75
0603	8.00	1.75	3.50	1.55	4	4	2	40	1.20	1.85	0.95	1.05

塑料胶带 Embossed tape



Part NO.	W	E	F	D0	D1	P0	P1	P2	P0×10	t	A0	B0	K0
0805	8.00	1.75	3.50	1.55	0.65	4	4	2	40	0.23	1.85	2.45	1.50

* 剥离力检验 Peeling off force



盖带的剥离力要求 Peeling required

0402~0805 series : 10g~80g

测试条件 Test condition

盖带剥离速度: 300mm/min±10%

盖带剥离角度: 165° ~180°

Speed of peeling off : 300mm/min±10%

Angle of peeling off: 165°~180°

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

尺寸 Size		0402	0603	0805
每卷数量 Per Reel		5000	4000	3000
每盒数量 Per Box	3 卷盒	15000	12000	9000
	5 卷盒	25000	20000	15000
	10 卷盒	50000	40000	30000
每箱数量 Per Case	1.5 盒箱	75000	60000	45000
	2 盒箱	100000	80000	60000
	3 盒箱	150000	120000	90000
	4 盒箱	200000	160000	120000
	6 盒箱	300000	240000	180000

◆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内进行焊接。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℃

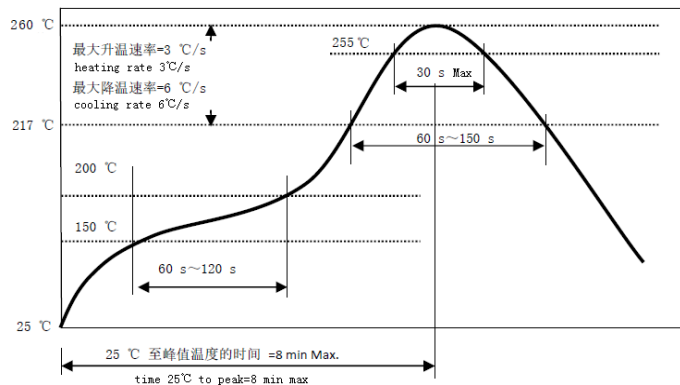
max temp: 260 °C

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

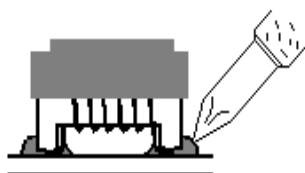
烙铁温度: 350℃ (Max)

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包封层)。

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 palette 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.

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

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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.