

■轴向引线色环电容器

Axial Color Code Lead MLCCs

◆特征 Feature

*体积小，容量大，适合自动安装的卷（编）带包装；

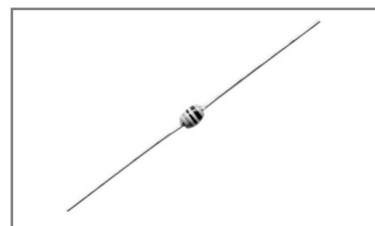
Miniature size, large capacitance, tape and reel packaging suitable for auto-placement.

*环氧树脂封装，从而具有优良的防潮性能、机械强度及耐热性

Epoxy resin coating creates excellent performance in humidity resistance, mechanical strength and heat resistance.

*工业生产标准尺寸及多种脚型产品.

Standard size, various lead configuration.



介质种类 Dielectric Type	I 类介质 Class I	II 类介质 Class II	
介质材料 Dielectric Material	温度补偿型 Temperature compensating	X7R(B)	Y5V(Y/F)
电气性能 Electrical properties	电气性能最稳定，几乎不随温度、电压和时间的变化而变化。 It is the most stable one in electrical properties and has little change with temperature, voltage and time.	具有较高的介电常数，容量可做到比 I 类电容器高，具有稳定的温度特性。 X7R material has high dielectric constant, and its capacitance is higher than class I. These capacitors are classified as having a semi-stable T.C..	介电常数最大，但温度特性较差，对温度、电压等条件较敏感。 Y5V material has highest dielectric constant. Its capacitance and dissipation is sensible to temperature and voltage.
应用 Application	适用于低损耗，稳定性要求高的高频电路，如滤波器、振荡器和定时电路等。 Used in applications where low-losses and high-stability are required, such as filters, oscillators, and timing circuits so on.	适用于容量范围广，稳定性要求不高的电路中，如隔直、耦合、旁路及鉴频等电路中。 Used over a wide temperature range, such in these kinds of circuits, DC-blocking, coupling, bypassing, frequency discriminating etc.	适用于要求大容量，温度变化不大的电路中 Used over a moderate temperature range in application where high capacitance is required.
容量范围 Available capacitance range	0.5pF~2.7nF	100pF~0.22uF	1nF~1.0uF

◆型号表示法 Part Number

ACC	-	03	B	104	K	500	P	52
①		②	③	④	⑤	⑥	⑦	⑧

①

产品类别 Product Type	
代号 Code	类别 Type
ACC	轴向引线色环电容器 Axial Lead Color Code Capacitor

②

本体尺寸代码 Nominal Body Size Code	
03	Φ 1.9×3.0
(空白)	(常规 08) Φ 2.2×3.2

③

温度特性 Temperature Characteristics					
CH	0±60ppm/°C	(-25~+85°C)	CG/C0G	0±30ppm/°C	(-55~+125°C)
RH	-220±60ppm/°C	(-25~+85°C)	B/X7R	±15%	(-55~+125°C)
UJ	-750±120ppm/°C	(-25~+85 °C)	F(Y)/Y5V	-80%~+30%	(-25~+85 °C)
SL	-1000~+140ppm/°C	(-25~+85°C)			

④

标称容量 Nominal Capacitance
前两位数字为有效数字，后一位数字表示零的个数 First two digits are signify cant and the third digit is number of zeros .例如： For example: 102=1000pF, 5R6=5.6pF

⑤

容量公差 Tolerance					
C	D	J	K	M	Z
±0.25pF	±0.5pF	±5.0%	±10%	±20%	+80%~-20%
C,D for C<10PF NP0:C.D.J.K.M, X7R:K.M.,Z					

⑥

额定电压 Rated Voltage
前两位数字为有效数字，后一位数字表示零的个数 First two digits are signifcant and the third digit is number of zeros .例如： For example: 500=50V

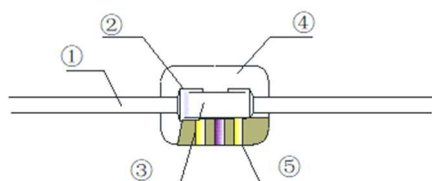
⑦

包装方式 Packaging Style		
编带 Tape	P	盒带包装 Ammo
	T	卷带包装 Reel

⑧

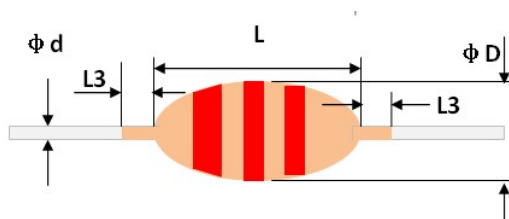
引脚形式（单位：mm） Lead Configuration	
26	编带内距 Tape width:26mm
52	编带内距 Tape width:52mm

◆产品结构 Product Structure

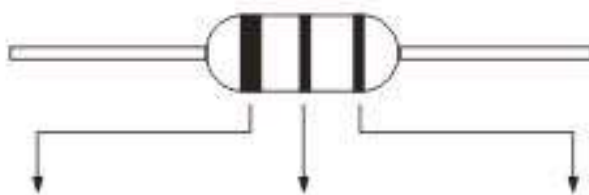


序号 No.	部位 Component
1	引线 Lead wire
2	端帽 Iron Cap
3	芯片 Chip
4	涂层 Coating
5	色码 color code

◆规格尺寸 Dimension



尺寸规格	L	Φ D	Φ d	H	L3
03 型	≤3.0	≤1.9	0.40±0.05	P52 ≥ 20	/
08 型	≤3.2	≤2.2	0.40±0.05	P52 ≥ 20	1.5Max

◆色环标记代码
Marking of Color Code


	标称容量 Nominal Capacitance		
	第一色环 1st color zone	第二色环 2nd color zone	第三色环 3rd color zone
	第一数字 1st digit	第二数字 2nd digit	第三数字 3rd digit
黑 Black	0	0	$\times 10^0$
棕 Brown	1	1	$\times 10^1$
红 Red	2	2	$\times 10^2$
橙 Orange	3	3	$\times 10^3$
黄 Yellow	4	4	$\times 10^4$
绿 Green	5	5	$\times 10^5$
蓝 Blue	6	6	
紫 Purple	7	7	
灰 Gray	8	8	
白 White	9	9	
金 Gold	—	—	$\times 10^{-1}$
银 Silver	—	—	$\times 10^{-2}$

*例如：标称容量为 104 时，色环为棕（1）+黑（0）+黄（4）；

E.G. If nominal capacitance is 104, respectively, brown + black + yellow should be marked;

*第一条色环线应稍粗，宽度约为其它两条的 1.5 倍。

The width of the first line should be about 1.5 times than others.

◆电性能参数 Electrical Characteristics

*尺寸、工作电压、容量关系表 Size code, capacitance and voltage

温度特性 Temp. char	工作电压(V) Voltage		标称容量范围 Available Capacitance Range		容量公差 Capacitance Tolerance
尺寸规格 Size Code	03 型	08 型	03 型	08 型	
CG(N)	25	25	0R5~102	0R5~102	C: $\pm 0.25p$ D: $\pm 0.5pF$ J: $\pm 5\%$ K: $\pm 10\%$ M: $\pm 20\%$
	50	50	0R5~102	0R5~102	
CH	50	50	0R5~102	0R5~102	
RH	50	50	1R5~102	1R0~180	
UJ	50	50	1R0~180	2R2~300	
SL	50	50	2R2~300	1R0~680	
X7R(B)	25	25	1R0~680	101~334	K: $\pm 10\%$ M: $\pm 20\%$ N: $\pm 30\%$
	50	50	101~104	101~224	
Y5V(Y/F)	25	25	101~333	103~125	M: $\pm 20\%$ N: $\pm 30\%$ Z: $-20\% \sim +80\%$
	50	50	103~224	103~105	

◆可靠性测试方法 Reliability Test Method

项目 Item	技术要求 Technical Specification		测试方法和备注 Test Method and Remarks		
容量 Capacitance (C)	I 类 Class I	应符合指定的误差级别 within the specified tolerance.	标称容量 Capacitance	测试频率 Measuring Frequency	测试电 Measuring Voltage
			$C \leq 1000 \text{ pF}$	$1 \text{ MHz} \pm 10\%$	$1.0 \pm 0.2 \text{ V}$
			$C > 1000 \text{ pF}$	$1 \text{ KHz} \pm 10\%$	
	II 类 Class II	应符合指定的误差级别 within the specified tolerance.	额定电压 Nominal voltage	测试频率 Measuring Frequency	测试电压 Measuring Voltage
			$U_R > 6.3 \text{ V}$	$1 \text{ KHz} \pm 10\%$	$1.0 \pm 0.2 \text{ V}$
			$U_R \leq 6.3 \text{ V}$	$1 \text{ KHz} \pm 10\%$	$0.5 \pm 0.2 \text{ V}$
损耗角正切 Dissipation Factor (DF)	I 类 Class I	$C \geq 50 \text{ pF}$ $DF \leq 0.15\%$ $C < 50 \text{ pF}$ $DF \leq 1.5[(150/C)+7] \times 10^{-4}$	标称容量 Capacitance	测试频率 Measuring Frequency	测试电压 Measuring Voltage
			$\leq 1000 \text{ pF}$	$1 \text{ MHz} \pm 10\%$	$1.0 \pm 0.2 \text{ V}$
			$> 1000 \text{ pF}$	$1 \text{ KHz} \pm 10\%$	
	II 类 Class II	B $DF \leq 3.5\%$ Y(F) $\leq 7.5\% (C \leq 0.1 \mu\text{F})$ $\leq 10.0\%$ $(1 \mu\text{F} > C > 0.1 \mu\text{F})$ $\leq 15\% (C \geq 1 \mu\text{F})$	额定电压 Nominal voltage	测试频率 Measuring Frequency	测试电压 Measuring Voltage
			$U_R > 6.3 \text{ V}$	$1 \text{ KHz} \pm 10\%$	$1.0 \pm 0.2 \text{ V}$
			$U_R \leq 6.3 \text{ V}$	$1 \text{ KHz} \pm 10\%$	$0.5 \pm 0.2 \text{ V}$

项目 Item	技术要求 Technical Specification		测试方法和备注 Test Method and Remarks
绝缘电阻 Insulation Resistance	I 类 Class I	$C \leq 10\text{nF}$ $IR \geq 10000\text{M}\Omega$ $C > 10\text{nF}$ $R.C \geq 100\ \Omega\text{F}$	测试电压: 额定电压 Measuring Voltage: Rated Voltage 测试时间: 60 ± 5 秒 Duration: $60 \pm 5\text{s}$
	II 类 Class II	$C \leq 25\text{nF}$ $IR \geq 4000\text{M}\Omega$ $C > 25\text{nF}$ $R.C \geq 100\ \Omega\text{F}$	
耐电压 Withstandi-ng Voltage	不应有介质被击穿或损伤 No breakdown or damage.		端子间 Between terminals: 测试电压 Measuring Voltage I 类: 300% 额定电压 Class I : 300% Rated voltage II 类: 250% 额定电压 Class II : 250% Rated voltage 持续时间: 5 ± 1 秒 Duration: $5 \pm 1\text{s}$ 充/放电电流不应超过 50mA The charge/ discharge current is less than 50mA.
可焊性 Solder ability	上锡率应大于 95% Lead wire shall be at least 95% covered with a new solder coating.		将电容器引线浸入含有 25% 松香的酒精溶液中 5-10 秒, 然后浸入温度为: $245 \pm 5^\circ\text{C}$ 的金属焊锡 (Sn-3Ag-0.5Cu) 中 $2.5(+0.5,-0.5)$ 秒, 注意: 电容器本体底面距离锡面约 1.5~2mm。 The lead wire of capacitor is dipping into a 25% rosin solution of ethanol for 5s-10s and then into molten solder(Sn-3Ag-0.5Cu) of $245 \pm 5^\circ\text{C}$ for $2.5(+0.5,-0.5)\text{s}$. In both cases the depth of dipping is up to about 1.5~2mm from the terminal body.

项目 Item	技术要求 Technical Specification	测试方法和备注 Test Method and Remarks
耐焊接热 Resistance to Soldering Heat	<p>ΔC/C: C0G: ≤ ± 2.5% 或 ± 0.25pF X7R: ≤ ± 10.0% Y5V(Y/F): ≤ ± 20%</p> <p>外观无可见损伤 No significant abnormality in appearance.</p>	<p>锡温: 260 ± 5℃ Solder temperature: 260 ± 5℃ 时间: 10 ± 1 s Duration: 10 ± 1 s</p> <p>浸入条件: 将电容器插入厚度为 1.6mm, 孔径为 1.0mm 的 PC 板。 Immersed conditions: Inserted into the PC board (with t=1.6mm, hole=1.0mm diameter)</p> <p>对于 I 类介质, 试验后, 应在标准条件下恢复 24 ± 2 小时后才测试。 Recovery: For class I, 24 ± 2 hours of recovery under the standard condition after test.</p> <p>对于 II 类介质, 在试验前应先进行如下预处理: 150(-10, +0) °C, 1 小时, 接着在标准条件下恢复 48 ± 4 小时。 Preconditioning (Class II): 1 hour of preconditioning at 150(-10, +0) °C, followed by 48 ± 4 hours of recovery under the standard condition.</p> <p>恢复: 对于 II 类介质试验后, 应在标准条件下恢复 48 ± 4 小时后才测试。 Recovery (Class II): 48 ± 4 hours of recovery under the standard condition after test.</p>
耐湿负荷 Damp heat load	<p>ΔC/C: I 类介质 Class I: -3% ≤ ΔC/C ≤ + 3% or ± 0.1 pF, 取较大值 whichever is greater。 II 类介质 Class II: X7R(B): -10% ≤ ΔC/C ≤ + 10%; Y5V(Y/F): -20% ≤ ΔC/C ≤ + 20%。</p> <p>DF: I 类介质 Class I: 小于原始值的两倍 Less than twice the original value. II 类介质 Class II: X7R(B): ≤ 5.0% Y5V(Y/F): ≤ 12.5% (CR ≤ 0.1 uF) ≤ 15.0% (1uF > CR > 0.1 uF) ≤ 17.5% (CR ≥ 1 uF)</p> <p>IR : ≥ 500MΩ or 25 Ω.F, 取 较小值 Take the smaller value。</p> <p>外观 Appearance: 无可见损伤 No visible damage</p>	<p>电压: 额定电压 温度: T = (40 ± 2) °C ; 相对湿度: RH = (90 ~ 95) %; 持续时间: t = (500 ~ 524) h; 恢复时间: I 类介质 I : (24 ± 2) 小时 hours; II 类介质: (48 ± 4) 小时 hours; Voltage: rated voltage Temperature: T = (40 ± 2) °C; Relative humidity: RH = (90-95)%; Duration: t = (500~524) h; Recovery time: Class I : (24 ± 2) hours; Class II : (48 ± 4) hours;</p>

项目 Item	技术要求 Technical Specification	测试方法和备注 Test Method and Remarks
振动 Vibrate	<p>$\Delta C/C$:</p> <p>I 类介质 Class I :</p> <p>Class I :</p> <p>$-3\% \leq \Delta C/C \leq +3\%$ or $\pm 0.1 \text{ pF}$, 取较大值 whichever is greater.</p> <p>II 类介质 Class II:</p> <p>X7R(B): $-10\% \leq \Delta C/C \leq +10\%$; Y5V(Y/F): $-20\% \leq \Delta C/C \leq +20\%$.</p> <p>DF:</p> <p>I 类介质 Class I:</p> <p>小于原始值的两倍 Less than twice the original value.</p> <p>II 类介质 Class II:</p> <p>X7R(B): $\leq 5.0\%$ Y5V(Y/F): $\leq 12.5\%$ ($CR \leq 0.1 \text{ uF}$) $\leq 15.0\%$ ($1 \text{ uF} > CR > 0.1 \text{ uF}$) $\leq 17.5\%$ ($CR \geq 1 \text{ uF}$)</p> <p>IR : $\geq 500 \text{ M}\Omega$ or $25 \text{ }\Omega \cdot \text{F}$, 取 较小值 Take the smaller value.</p> <p>外观 Appearance: 无可见损伤 No visible damage</p>	<p>振幅 0.75mm 或加速度 98 m/s^2, 取振幅较低者。选取下列频率范围之一; 10Hz~55Hz; 10Hz~100Hz 和 10Hz~2000Hz。总持续时间为 6h。</p> <p>对于轴向引出并预定只用引线安装时的电容器, 其本体与引线安装点之间的 距离应为 $6 \text{ mm} \pm 1 \text{ mm}$。</p> <p>The amplitude is 0.75mm or the acceleration is 98 m/s^2, whichever is lower. Select one of the following frequency ranges; 10Hz~55Hz; 10Hz to 100Hz and 10Hz to 2000Hz. The total duration is 6 hours.</p> <p>For capacitors with axial lead out and intended to be installed with only leads, the distance between their body and the lead installation point should be $6 \text{ mm} \pm 1 \text{ mm}$.</p>

项目 Item	技术要求 Technical Specification	测试方法和备注 Test Method and Remarks
气候顺序 Climatic sequence	$\Delta C/C$: Class I : $-3\% \leq \Delta C/C \leq +3\%$ or $\pm 0.1 \text{ pF}$, 取较大值 whichever is greater. II 类介质 Class II: X7R(B): $-10\% \leq \Delta C/C \leq +10\%$; Y5V(Y/F): $-20\% \leq \Delta C/C \leq +20\%$. DF: Class I: 小于原始值的两倍 Less than twice the original value. II 类介质 Class II: X7R(B): $\leq 5.0\%$ Y5V(Y/F): $\leq 12.5\%$ ($CR \leq 0.1 \text{ uF}$) $\leq 15.0\%$ ($1 \text{ uF} > CR > 0.1 \text{ uF}$) $\leq 17.5\%$ ($CR \geq 1 \text{ uF}$) IR : $\geq 500 \text{ M}\Omega$ or $25 \text{ }\Omega \cdot \text{F}$, 取 较小值 Take the smaller value. 外观 Appearance: 无可见损伤 No visible damage	干热: (C0G/X7R) 125°C , (Y5V) 85°C , 持续时间 16h; 循环湿热: 条件: 试验 Db (交变湿热) 温度: $+55^\circ\text{C}$, 循环周期: 1 个周 期 (24h) ; 寒冷: (C0G/X7R) -55°C , (Y5V) -25°C , 持续时间: 2h 循环湿热: 条件: 试验 Db (交变湿热) 温度: $+55^\circ\text{C}$, 循环周期: 1 个周 期 (24h) ; 恢复时间: I 类介质: (24 ± 2) 小时, II 类介质: (48 ± 4) 小时 Dry heat: (C0G/X7R) 125°C , (Y5V) 85°C , lasting for 16 hours; Cyclic damp heat: Condition: Test Db (alternating damp heat) Temperature: $+55^\circ\text{C}$, Cycle cycle: 1 cycle (24 hours); Cold: (C0G/X7R) -55°C , (Y5V) -25°C , duration: 2 hours Cyclic damp heat: Condition: Test Db (alternating damp heat) Temperature: $+55^\circ\text{C}$, Cycle cycle: 1 cycle (24 hours); Recovery time: Class I: (24 ± 2) hours, Class II: (48 ± 4) hours Dry heat: (C0G/X7R) 125°C , (Y5V) 85°C , lasting for 16 hours; Cyclic damp heat: Condition: Test Db (alternating damp heat) Temperature: $+55^\circ\text{C}$, Cycle cycle: 1 cycle (24 hours); Cold: (C0G/X7R) -55°C , (Y5V) -25°C , duration: 2 hours Cyclic damp heat: Condition: Test Db (alternating damp heat) Temperature: $+55^\circ\text{C}$, Cycle cycle: 1 cycle (24 hours); Recovery time: Class I media: (24 ± 2) hours, Class II media: (48 ± 4) hours

项目 Item	技术要求 Technical Specification		测试方法和备注 Test Method and Remarks		
高温负荷 High Temperature Loading Test	外观无可见损伤 No significant abnormality in appearance.		温度 Temperature		
	容量变化 Capacitance Change: I 类介质 Class I: $\leq \pm 3\%$ or $\pm 0.3\text{pF}$ 取较大值 Whichever is larger.		COG (N)	X7R(B)	SL/UJ/CH/RH/Y5V(Y/F)
	II 类介质 Class II: X7R(B): $\leq \pm 12.5\%$ Y5V(Y/F): $\leq \pm 30\%$		125(-0,+3)℃		85(-0,+3)℃
	绝缘电阻 Insulation Resistance: $\geq 500\text{M}\Omega$ or $25\text{ }\Omega\cdot\text{F}$ 取较小值 Whichever is smaller.		电压: 1.5 倍额定电压 Applied voltage: 1.5 times rated voltage 充放电电流不超过 50mA The charge/ discharge current is less than 50mA. 时间: 1000 小时 Duration: 1000 hours 恢复时间: Recovery Time I 类介质: 24 ± 2 小时, Class I Dielectric: 24 ± 2 hours II 类介质: 48 ± 4 小时 Class II Dielectric: 48 ± 4 hours		
耐溶剂性 Solvent Resistance	外观无可见损伤或异常, 标记清晰。 No defects or abnormalities in appearance and legible marking.		溶剂温度: $23 \pm 5^\circ\text{C}$ Solvent temperature: $23 \pm 5^\circ\text{C}$ 将样品浸在溶剂中 1 分钟, 用脱脂棉在样品有标志部位刷 10 次, 重复 3 次。 put the sample into solvent 1 Min, and then take it out and brush sample's notation area 10 times with pledget, repeat 3 times.		
端头强度 Terminal Strength	抗拉强度 Tensile Strength	无引线断裂或松动等可见不良。 No abnormality such as cut lead or looseness.	对于轴向产品, 沿端子引出方向徐徐施加 2Kg 的力, 持续 5S For axial leaded type, apply a 2.0kg tensile force progressively in the direction to draw terminal, this operation is done over a period of 5 sec		
	弯折强度 Bending Strength		对电容器引出端施加 2.5N 的力, 使引线弯曲 90 度, 持续 5 秒, 然后使引线回到原始位置, 接着反方向操作一次为一个循环, 共重复 2 次。Each lead wire shall be subjected to a force of 2.5N and then be bent a angle of 90 degree then returned to initial position. This operation is done over a period of 5 sec. Then second bend in the opposite direction shall be made, repeat 2 times.		

*以上所示“标准条件”解释如下：温度：5~35℃，相对湿度：40%RH~85%RH，

* Note on standard condition: " standard condition " referred to herein should be defined as follows:

5 to 35℃ of temperature, 45 to 75% of relative humidity, and 86 to 106kPa of atmospheric pressure.

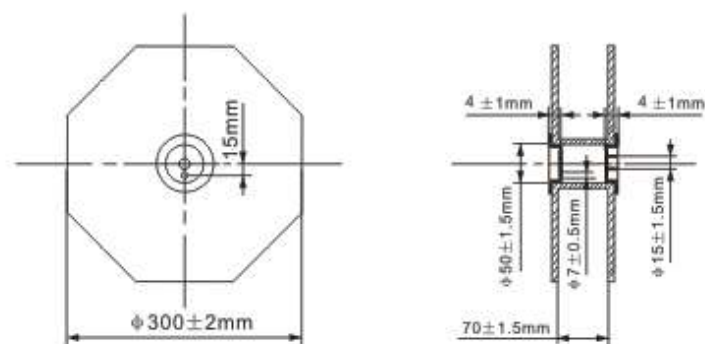
* 若测试结果有争议时，仲裁试验用标准大气条件为：温度：25±1℃，相对湿度：48%~52%，

* When there are questions concerning measurement results: In order to provide correlation data, the test should be conducted under a condition of 25 degrees plus/minus 1 centigrade of temperature, 48% through 52% of relative humidity

◆包装 Packaging

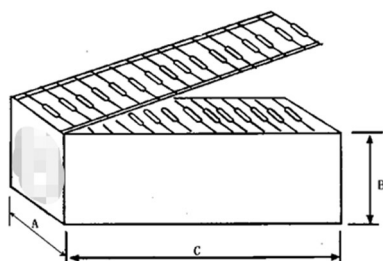
* 卷带包装

Tape and Reel Packaging



* 盒带包装

Ammo Packaging



尺寸规格 Size Code	编带方式 Tape Style	A ±5 mm	B ±5 mm	C ±5 mm
常规 (08)	P52	80	80	265
	P26	60	70	265
03	P52	76	70	260
	P26	60	70	260

* 包装数量

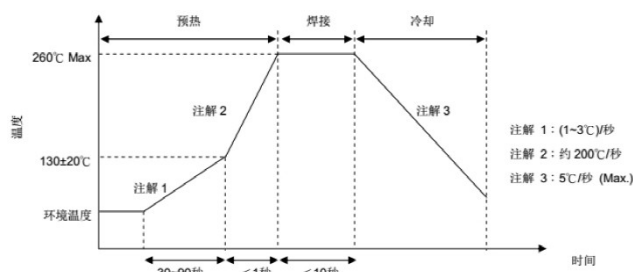
Packaging Quantity

尺寸规格 Size Code	盒带包装 Ammo	卷带包装 Tape and Reel
常规 (08)	5000pcs	5000pcs
03	5000pcs	5000pcs

◆推荐焊接条件 Recommended Soldering Conditions

*本产品建议使用波峰焊接法。Applicable soldering process to the products is reflow soldering.

* 焊接曲线 Soldering Profile



* 烙铁焊接 Soldering Iron

使用烙铁进行返修时要求在 150°C 下预热至少 1 分钟，不能直接用焊头接触磁体，返修焊接条件如下：

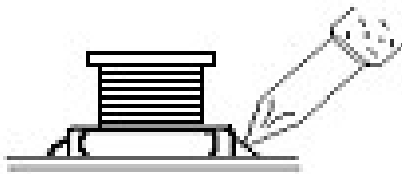
Reworking with Soldering Iron must preheating at 150°C for 1 minute is required, and do not directly touch the core with the tip of the soldering iron. The reworking soldering conditions are as follows:

烙铁头温度: Temperature of soldering iron tip: 350°C;

烙铁输出功率: Soldering iron power output: 30W max.

烙铁头直径: ≤1.0mm Diameter of soldering iron end: 1.0mm max.

焊接时间: Soldering time: within 3 sec.



◆贮存方法 Storage Methods

*存储期限 Storage Period

为保证端子电极的焊接特性和包装材料处于良好状态，请于本公司发货后 6 个月内使用本产品。同时，由于端子电极的焊接特性会随时间发生变化，如果贮存时间超过 6 个月，请首先确认其焊接特性后再安装使用。

To maintain the solderability of terminal electrodes and to keep the packing material in good condition, product should be used within 6 months from the time of delivery. And the solderability of products electrodes may decrease as time passes, so in case of storage over 6 months, solderability shall be checked before actual usage.

* 存储条件 Storage conditions

存放货物的仓库应满足以下条件:The warehouse must meet with the following condition:

温度(Temperature): Inductors (product with taping):(+5~+35)°C;相对湿度(Humidity): (45~85)%RH.

* 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 oxidization 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

* 本公司产品适用于 AV 设备、OA 设备、家电、信息服务等一般电子设备中。

Our products are designed and promoted for use in general electronic devices such as audio-video equipment, office automation equipment, home appliance and information service.

* 当本公司的产品使用在一般电子设备以外的领域时，对于此所引发的设备失效我司将不承担任何法律责任。

In case of using the product for the purpose other than general electronics devices, we shall not be held liable for any dysfunctions in or damage to the equipment with which the product is used.

* 本承诺书只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，请贵司对使用在贵司电路上的产品情况进行有效评价和确认。

Our specification limits the quality of the component as a single unit. Please ensure the component is thoroughly evaluated in your application circuit.

* 不要对产品施加过大的振动或机械冲击；

Do not apply excessive vibration or mechanical shock to products.

* 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.

在产品贴装时不要使用过大的压力，避免磁芯断裂。

Do not apply excessive stress to products mounted on boards to prevent core breakage

[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.