



- 产品类型:

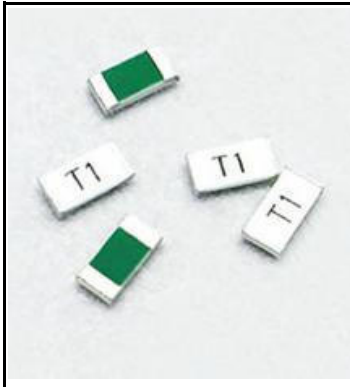
晶片型贴片保险丝
- Product Family:

Chip Fuse
- 产品系列:

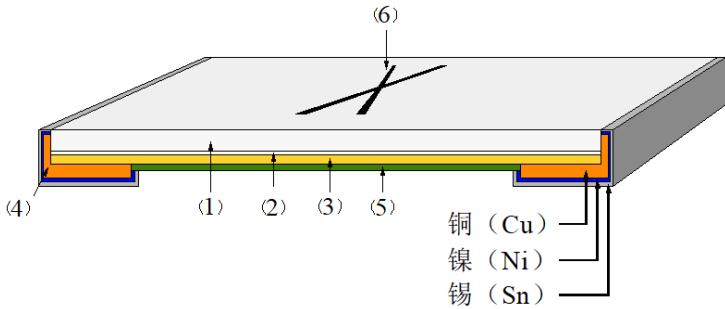
1206T 系列
- Product Series:

1206T Series



	结构 / Construction: - 铜合金/锡 熔丝本体 / Cu alloy/Sn fuse element - 阻燃环氧涂层 / Flame-retardant epoxy coating - 铜/镍/锡 端电极 / Cu/Ni/Sn terminal electrode	特征 / Features: 1206英制尺寸 / 1206 Imperial size - 额定电流 / Rated Current: 1~10A - 一般额定电压 / Normal Rated Voltage: 63V DC - 慢断 / Slow Acting - UL安全认证 / UL Safety Approvals - 无PFAS / PFAS free - 符合RoHS标准 / RoHS compliant
示意图 / Diagram		
应用 / Application: ■ 服务器/Servers ■ 笔记本电脑/Notebook ■ 电动工具/Power tools ■ 电池组/Battery packs ■ 显示器/Display ■ 电源模块/ Power supply		

产品结构 / Product Construction



(示意图仅供参考 / Diagram for reference)

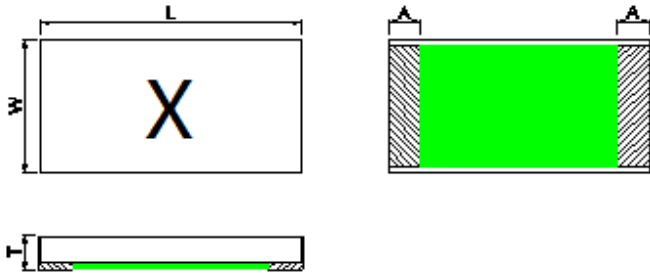
编号 / Number	说明 / Description
1	基板 / Substrate
2	黏着层 / Adhesion Layer
3	熔丝本体 / Fuse Element
4	端电极 / Terminal Electrode
5	保护防焊层 / Protective Coating
6	文印* / Marking*

*注：文印编码数量参照“基本信息”表格。 / *Note: The quantity of printing and coding refers to the “Ordering Information” table.

零件编号 / Part Numbering: Ex: 1206T3.5A63V

英制尺寸 / English Size	特性 / Characteristic	额定电流 / Rated Current	一般额定电压 / Normal Rated Voltage
1206	T=慢断 / Slow Acting	3.5A	63V DC

产品尺寸 / Product Dimensions



单位 / Unit : 英寸 / inches (mm)
(示意图仅供参考 / Diagram for reference)

尺寸(公制) / Dimension (Metric)	额定电流 / Rated Current	额定电压 / Rated Voltage	L	W	A	T
1206 (3216)	1A~10A	63VDC	3.20±0.25	1.60±0.25	0.58±0.20	0.60±0.15

基本信息 / Ordering Information

额定电流 / Rated Current	标示 / Marking	标称阻值 / Nominal Resistance*	额定电压 / Rated Voltage	I ² t / Melting I ² t (min.) *	安规认证 / Safety Approval*
					
1A	P	220mΩ	63V DC	0.259A ² s	●
1.25A	Q	155mΩ		0.405A ² s	●
1.5A	Q1	110mΩ		0.583A ² s	●
2A	S	62mΩ		1.036A ² s	●
2.5A	T	30.5mΩ		1.619A ² s	●
3A	T1	25mΩ		2.332A ² s	●
3.5A	U1	18mΩ		3.174A ² s	●
4A	V	15.5mΩ		4.145A ² s	●
5A	W	11mΩ		6.477A ² s	●
6A	W1	12.8mΩ		9.327A ² s	●
6.3A	X	9.5mΩ		10.283A ² s	●
7A	X1	8.5mΩ		12.696A ² s	●
8A	Y	7.5mΩ		16.582A ² s	●
10A	Z	5.7mΩ		25.909A ² s	●

*注：标称阻值是在通以小于额定电流的 10%的弱电流条件下量测的阻抗。 / Note: Nominal Resistance measured with <10% rated current.

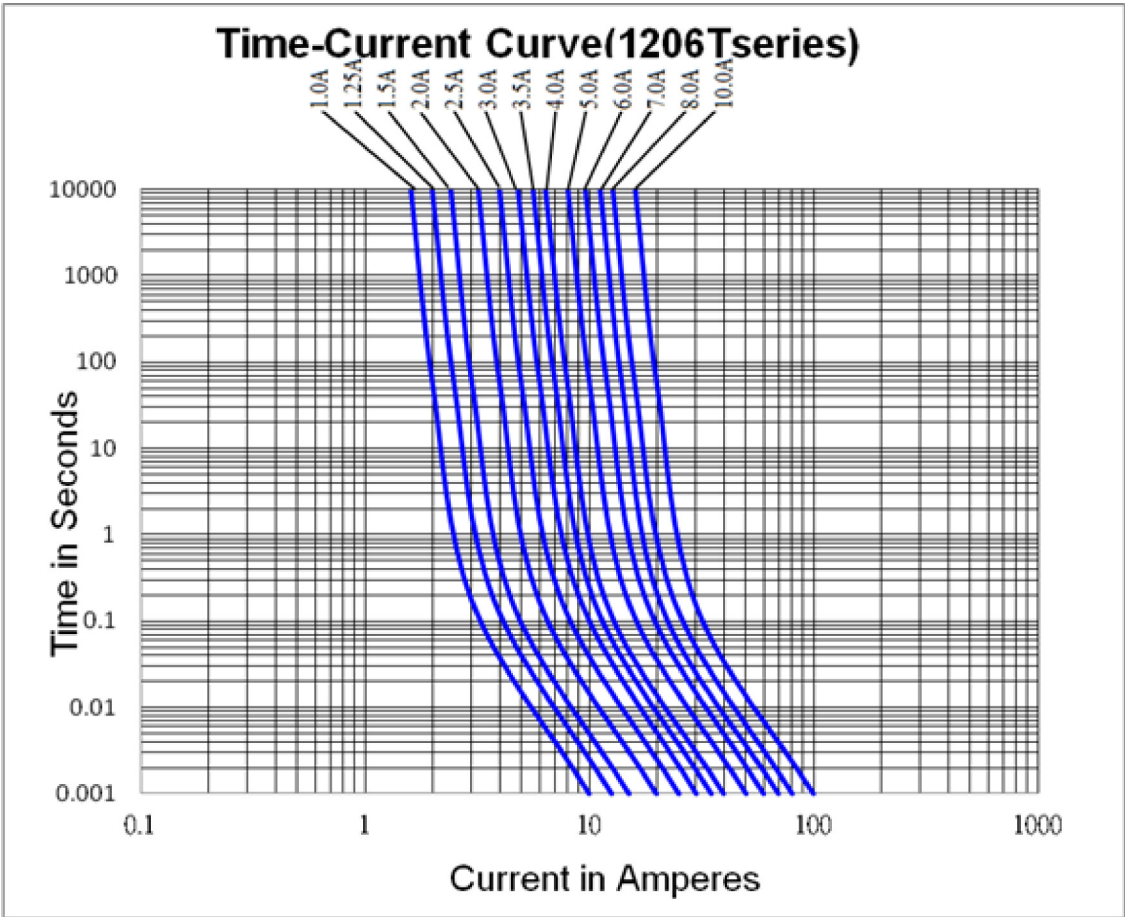
*注：I²t 是指通以 10 倍额定电流动作过程所对应的 I²t。 / Note: Melting I²t measured at 10 times of rated current.

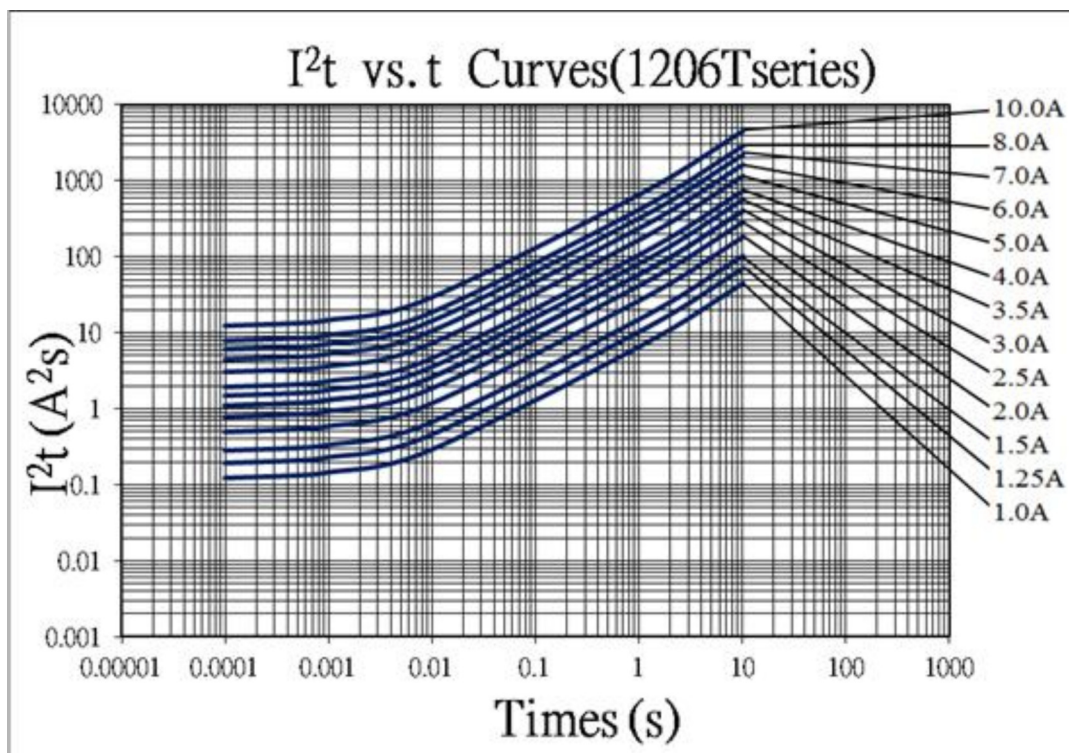
*注：●approved○pending

熔断时间/电流特性 Pre-Arcing Time / Current Characteristics

额定电流 / Rated Current	1.0In	2.0In	3.0In	8.0In	10.0In	分断能力 / Breaking Capacity
1-10A	4hrs min	1sec min 120sec max	0.1sec min 3sec max	2ms min 50ms max	0.2ms min 20ms max	50A@63V DC

时间电流曲线 / Time Current Curves



I²t-t 曲线/ I²t-t Curve

环境特性 / Environmental Characteristic

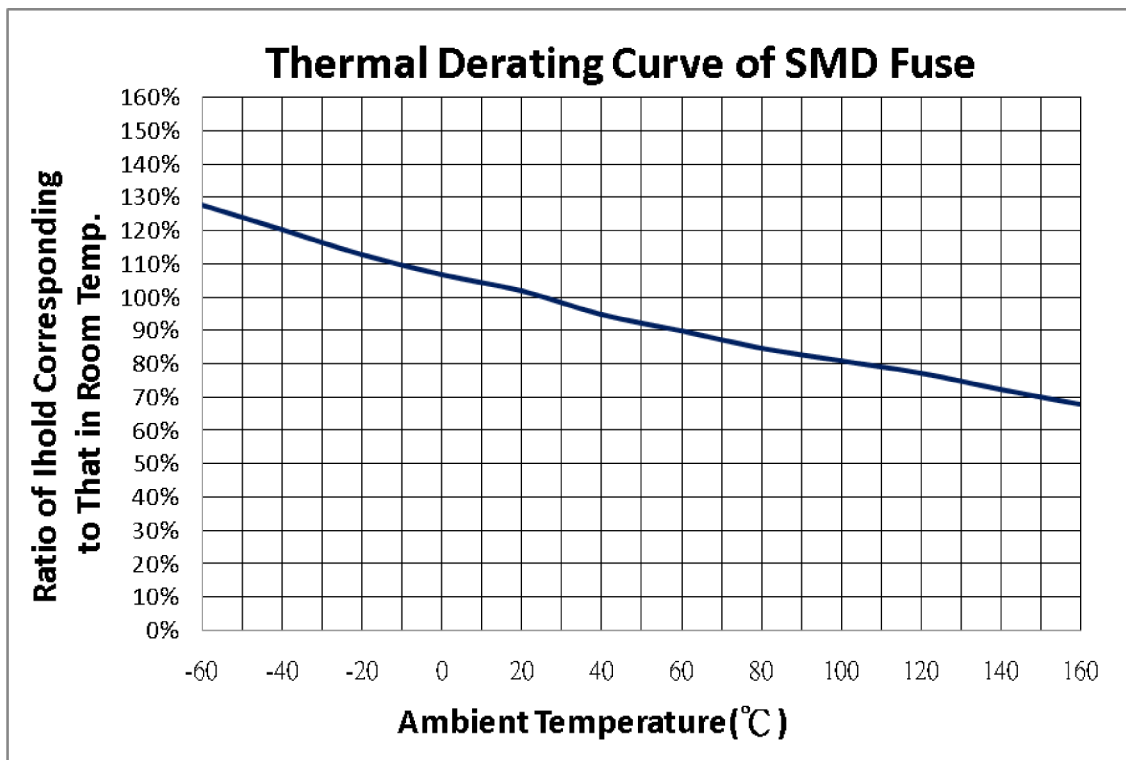
- 操作温度范围 - 55°C ~ +150°C

Operating Temperature - 55°C ~ +150°C

- 选择保险丝规格时，若使用环境温度超出范围 $25 \pm 5^\circ\text{C}$ ，需考虑环境温度对保险丝的影响，请参考上表。

When choosing the fuse's specification, if the operating environmental temperature is $25 \pm 5^\circ\text{C}$ beyond the range, consider the environmental temperature's effects on the fuse. Please refer to the table above.

温度电流曲线 / Temperature Current Curve



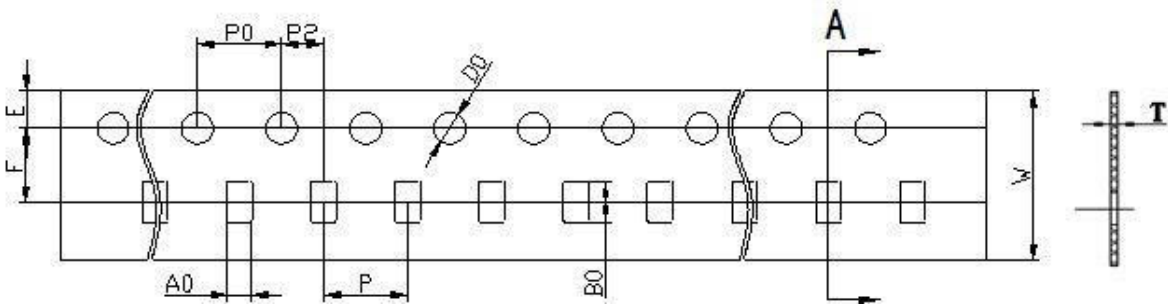
可靠性规格 / Reliability Specifications

测试项目 / Test Item	测试方法 / Test Method	判定标准 / Specification
时间/电流特性 Time/current characteristics	分别通以1.0In、2.0In、3.0In、8.0In、10.0In电流, 得出相对应的时间 I=1.0In ; 2.0In ;3.0 In ;8.0 In ;10.0 In and measure the value of time individually by meter ,	各电流条件下的时间参数符合规定值 Value of time measured in different currents is within spec. UL248-1/-14
分断能力测试 Breaking capacity	V = 63V/DC ; I=50A	没有持续飞弧、燃烧、爆裂现象 No a permanent arcing,ignition,bursting UL248-1/-14
可焊性 Solderability	熔锡温度245°C±5°C, 浸锡时间5s±0.5s, 浸入深度从基座面起2.0mm±0.5mm, 放在20X的放大镜下检查 Temperature=245°C±5°C,t=5s±0.5s,magnifier:20X	锡覆盖率≥95% Cover ≥95% MIL-STD-202 Method 208
抗焊性测试 Soldering heat resistance	熔锡温度/ T =250°C±5°C, 浸锡时间/ t =30±5s T=250±5°C, t=30±5s	外观无裂纹和损伤, 前后阻值偏差小于或等于±15%; 文印清晰可辨 No crack and damage, $\Delta R \leq \pm 15\%$ Marking is easily legible MIL-STD-202, Method 210F, Condition K
冷热冲击 Thermal Shock	-65°C放置时间为15min,→ 25°C放置时间为5min→ 125°C放置时间15min 循环次数为100个 -65°C 15min~25°C 5min~+125°C15min ; 100 cycles	外观无裂纹和损伤, 前后阻值偏差≤±10% No crack and damage, $\Delta R \leq \pm 10\%$ JESD22-A-104 Condition B
机械冲击 Mechanical Shock	峰值100 G,持续时间11ms,波形: 半正弦, 五次脉冲 a=100G for 11ms, 5pulses	外观无裂纹和损伤, 前后阻值偏差≤±10%。 No crack and damage, $\Delta R \leq \pm 10\%$ MIL-STD-202, Method 213B
振动测试 Vibration	承受振幅为0.03 英寸(全程最大0.06 英寸),频率在大约10Hz到55Hz 的范围均匀地变化的简谐运动。)	MIL-STD-202, Method 201A
高频振动测试 Vibration, High Frequency	20g's峰值, 公差值为±10%, 振动频率10Hz-2000Hz, 总计时间为12h	MIL-STD-202, Method 204D, Condition D

安全认证及编号 / Standards and Approvals

UL	E56092
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纸带尺寸 / Paper Tape Dimensions

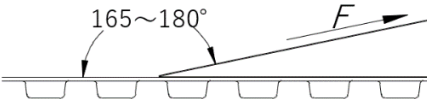


单位 / Unit: mm
(示意图仅供参考 / Diagram for reference)

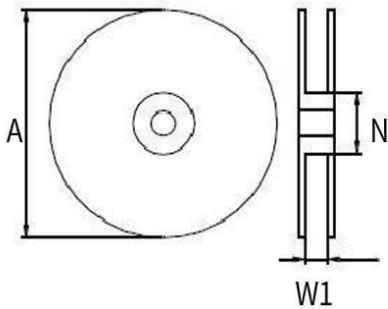
尺寸 / Size	W	P0	P	P2	A0	B0	D0	F	E	T
1206	8.00 ±0.30	4.00 ±0.10	4.00 ±0.10	2.00 ±0.10	2.05 ±0.20	3.65 ±0.20	1.50 ±0.10	3.50 ±0.10	1.75 ±0.10	0.87 ±0.10

热封上带剥离强度要求 / Peeling Strength of Seal Tape

F = 剥离强度: 0.1 – 1.0N (10 - 100gf)
F = Peeling Strength: 0.1 – 1.0N (10 - 100gf)



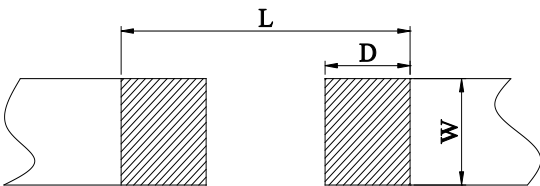
卷盘尺寸 / Reel Dimensions



单位 / Unit: mm
(示意图仅供参考 / Diagram for reference)

尺寸 / Size	1206
数量 / Quantity	5,000 颗一卷 / 5,000 pcs per reel
A	178.00±5.00
N	60.00±2.00
W1	8.40+1.00/-0.10

推荐焊盘结构 / Recommended Land Pattern

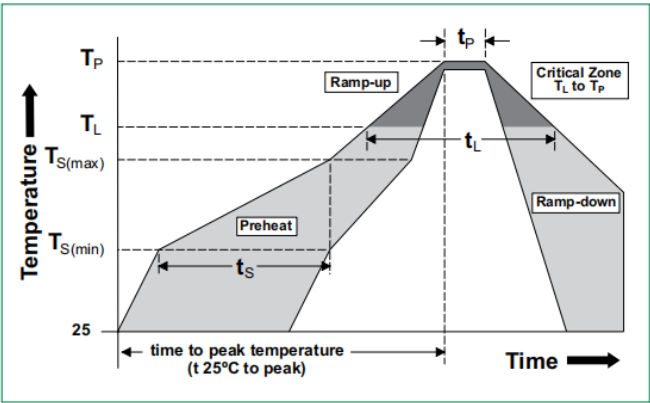


t : 组件焊垫金属层厚度 (min.) / t : Thickness of pad metal (min.)

单位 / Unit: mm
(示意图仅供参考 / Diagram for reference)

尺寸 / Size	额定电流 / Rated Current	L	W	D	t
1206	1~10A	4.05	2.40	1.25	≥35μm

焊接曲线 / Soldering Profile



Reflow Condition		Pb – Free assembly
Pre Heat	- Temperature Min ($T_{s(min)}$)	150°C
	- Temperature Max ($T_{s(max)}$)	200°C
	- Time (Min to Max) (t_s)	60 – 120 secs
Average ramp up rate (Liquidus Temp (T_L) to peak		5°C/second max
$T_{s(max)}$ to T_L - Ramp-up Rate		5°C/second max
Reflow	- Temperature (T_L) (Liquidus)	217°C
	- Temperature (t_L)	60 – 150 seconds
Peak Temperature (T_p)		250 ^{+0/-5} °C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		5°C/second max
Time 25°C to peak Temperature (T_p)		8 minutes Max.
Do not exceed		260°C

允许烙铁焊接条件(热风设备) / Rework temperature (hot air equipment) : 350°C, 3~5seconds

焊接热源方式可用红外线, 热蒸气, 热风

IR, vapor phase oven, hot air oven.

如果焊锡温度超过允许最高温度, 则产品本身会有功能损坏的疑虑

If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

储存条件 / Storage Conditions

环境条件 / Environment Conditions:

- 产品应在以下环境条件下储存 / Products should be stored under the following environmental conditions.
- 温度: +5至+40°C / Temperature: +5 to +40°C
 - 湿度: 10%~75%相对湿度 / Humidity: 10%~75% relative humidity
 - 在密闭条件下可存放2年 / Under airtight can store 2 years.
 - 不要将产品存放在可能受到颗粒污染或有害气体 (如硫酸或氯化氢) 污染的环境中, 因为这可能会导致电极氧化, 从而导致可焊性差。 / Do not keep products in environments where they may be subject to particulate contamination or harmful gases such as sulfuric acid or hydrogen chloride as it may cause oxidization on electrodes, resulting in poor solderability.
 - 产品应存放在不暴露于高温、振动或阳光直射的空间内。 / Products should be stored in a space that does not expose it to high temperatures, vibration, or direct sunlight.
 - 产品在使用前应存放在原始的气密包装中。 / Products should be stored in the original airtight packaging until use.