

1. 适用范围 / Scope of Application

本产品适用于各类电子设备电路的过流保护作用，广泛应用于照明设备、电源设备以及适配器等领域。

This product is suitable for various kinds of electronic devices' circuit over current protection. Widely used in industrial of Lighting, Power supply and Adapter applications, etc.

2. 安规认证标准及编号 / Standards and Agency Approvals

2.1 执行标准：遵循 UL248-1;UL248-14。

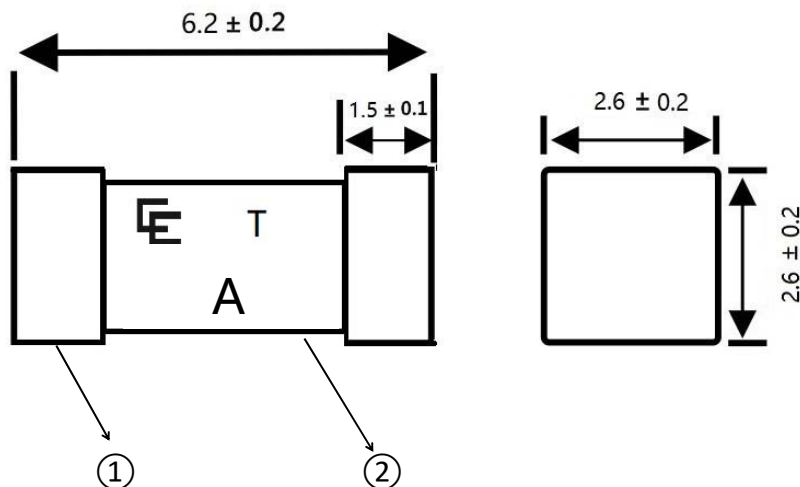
Standards: In accordance with UL248-1;UL248-14.

2.2 认证范围 Certification:

| 额定电压 Rated Voltage | 安规标准 Agency | 认证电流 Ampere Range | 证书编号 Agency File Number |
|-----------------------|----------------|----------------------|----------------------------|
| 125V | UR | 50mA ~ 15A | E358595 |
| | C-UR | 50mA ~ 15A | |
| 250V | UR | 50mA ~ 10A | |
| | C-UR | 50mA ~ 10A | |
| 300V | UR | 50mA ~ 10A | |
| | C-UR | 50mA ~ 10A | |

3. 结构及尺寸 / Dimensions and Structure

单位



4. 材料明细 / Material Details

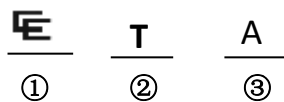
| 编号 NO. | 零件名称 Part Name | 材质 Material |
|-----------|-------------------|-------------------------|
| ① | 铜帽 Cap | 黄铜镀银 Ag Plated Brass |
| ② | 管体 Body | 陶瓷管 Body |

5. 产品标示 / Product Marking

保险丝两端铜帽上或本体上需有下列标示。

The fuses cap or fuse body shall have the following markings.

示例 Example:



①制造厂商标识/ Chevron Logo:

②电器特性符号/ Electrical Characteristic symbol: F/T (Fast-Acting/Time-Lag)

③额定电流/Rated Current: A 或 or mA

6. 产品特性/Product Characteristic

| Rated current | Rated voltage | Maximum voltage drop(mv) | Breaking capacity | I ² T A ² s | cUL [®] US |
|---------------|---|--------------------------|---|--------------------------------------|---------------------|
| 50mA | 125V(SAT) 250V(SBT) 300V(SCT) 125V(50mA~15A) 250V(50mA ~10A) 300V(50mA ~10A) | 5000 | 125V@100A ac (SAT) 250V@50A ac (SBT) 300V@50A ac (SCT) | 0.01 | ● |
| 63mA | | 4400 | | 0.02 | ● |
| 100mA | | 3500 | | 0.04 | ● |
| 125mA | | 2500 | | 0.06 | ● |
| 160mA | | 2200 | | 0.08 | ● |
| 200mA | | 1800 | | 0.09 | ● |
| 250mA | | 1400 | | 0.11 | ● |
| 315mA | | 1300 | | 0.14 | ● |
| 400mA | | 1000 | | 0.26 | ● |
| 500mA | | 900 | | 0.5 | ● |
| 630mA | | 800 | | 0.8 | ● |
| 800mA | | 600 | | 1.5 | ● |
| 1.0A | | 500 | | 2.3 | ● |
| 1.25A | | 400 | | 3.2 | ● |
| 1.6A | | 300 | | 5.9 | ● |
| 2.0A | | 300 | | 7.8 | ● |
| 2.5A | | 300 | | 10 | ● |
| 3.15A | | 300 | | 23 | ● |
| 4.0A | | 300 | | 39 | ● |
| 5.0A | | 300 | | 58 | ● |
| 6.3A | 300 | 95 | ● | | |
| 8.0A | 220 | 150 | ● | | |
| 10.0A | 220 | 210 | ● | | |
| 12.0A | 220 | 260 | ● | | |
| 15.0A | 200 | 320 | ● | | |

7. 外观及形状 / Appearances and Configuration

7.1 外观不应出现显著的污点、裂纹，标识应该容易辨识。

There shall not be any remarkable stain and crack on the appearances, markings shall be easily legible.

7.2 形状：小型贴片陶瓷管保险丝。

Configuration: Miniature Ceramic Tube Fuse.

8. 产品特性 / Product Characteristics

8.1 引脚拉力强度 / Lead Pull Strength

10 牛顿 10±1 秒 / 10N for 10±1 Seconds

8.2 引脚推力强度 / Lead Thrust Strength

2 牛顿 10±1 秒 / 2N for 10±1 Seconds

8.3 可焊性 / Solder ability

波峰焊/Wave : 260°C, ≤3s;

烙铁焊/Soldering Iron: 350±10°C, ≤3s.

8.4 耐焊接热 / Soldering Heat Resistance

波峰焊/Wave : 260°C, <10s;

烙铁焊/Soldering Iron: 350°C, <3s.

9. 电气特性 / Electrical Characteristics

9.1 实验条件: Test Condition

所有测试环境温度均为 25±5°C。

All electrical test is to be conducted with the ambient air at a temperature of 25±5°C.

9.2 分断能力 / Interrupting Rating:

分断能力 Breaking Capacity::

50 安培使用 125 伏交流电源(50mA~10A)。50A@ 125V AC(50mA~10A)

50 安培使用 250 伏交流电源(50mA~10A)。50 A@ 250V AC(50mA~10A)

9.3 温度上升试验 / Rising Temperature Test:

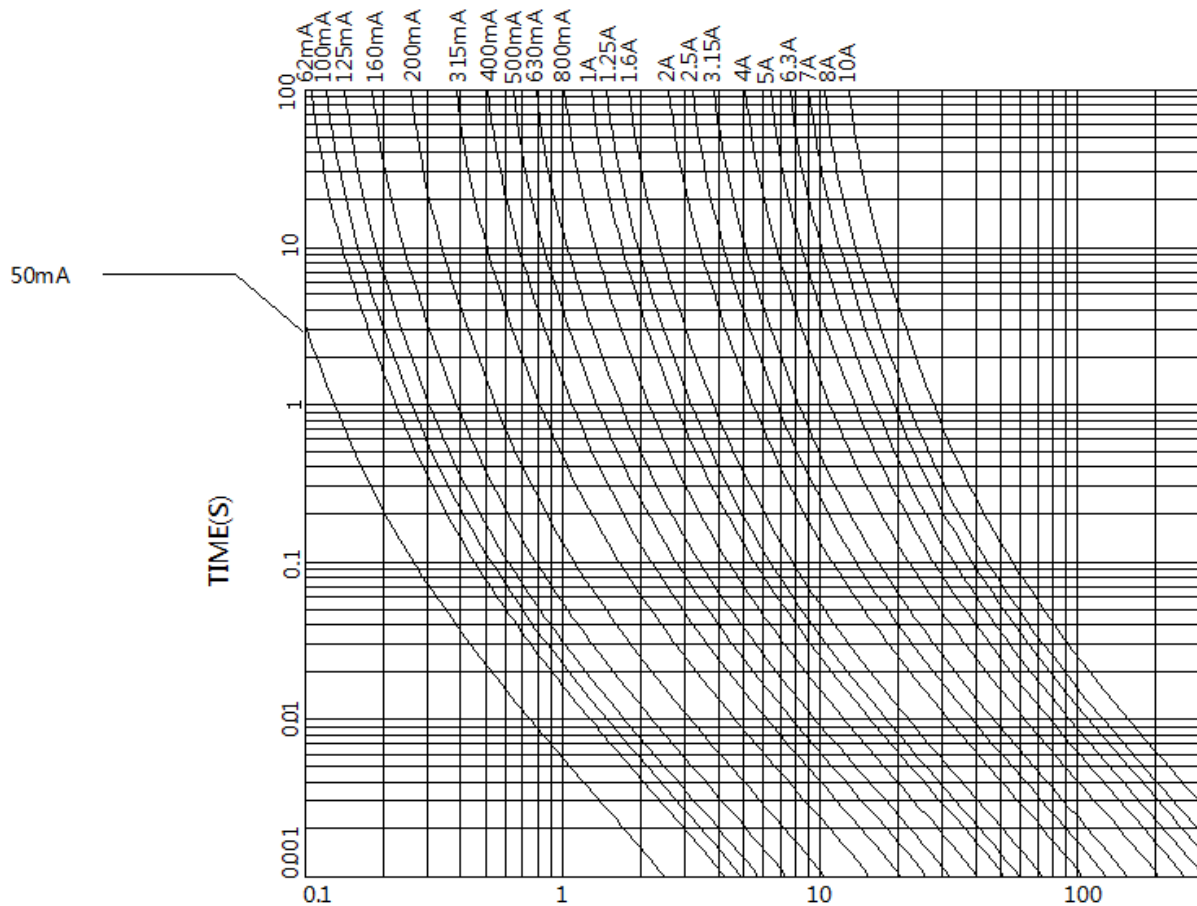
温度上升试验: 通 1.0 倍额定电流, 当温度稳定时 (5 分钟测量 4 次, 且每次测量值与平均值相差不超过 2°C)。测得熔断体任何部位的温升不得超过 75°C, 周围环境温度为 25±5°C。When the 100% times of rating electric current passes the fuse, After reaching thermal balance , the temperature on the fuse surface rising is not higher than 75°C

Rising temperature= The surface temperature-Ambient temperature

9.4 熔断时限 / Opning Time

| 额定电流的% % of Ampere Rating | 熔断时间(UL) Opening Time(UL) |
|------------------------------|------------------------------|
| 200% | 1s<T<60s |
| 300% | 200ms<T<3s |
| 800% | 20ms<T<100ms |

9.5 平均时间电流曲线图 / Average Time Current Curves



10. 环境特性 / Environmental Characteristic

10.1 使用温度范围 / Operating Temperature

-55℃~+125℃。

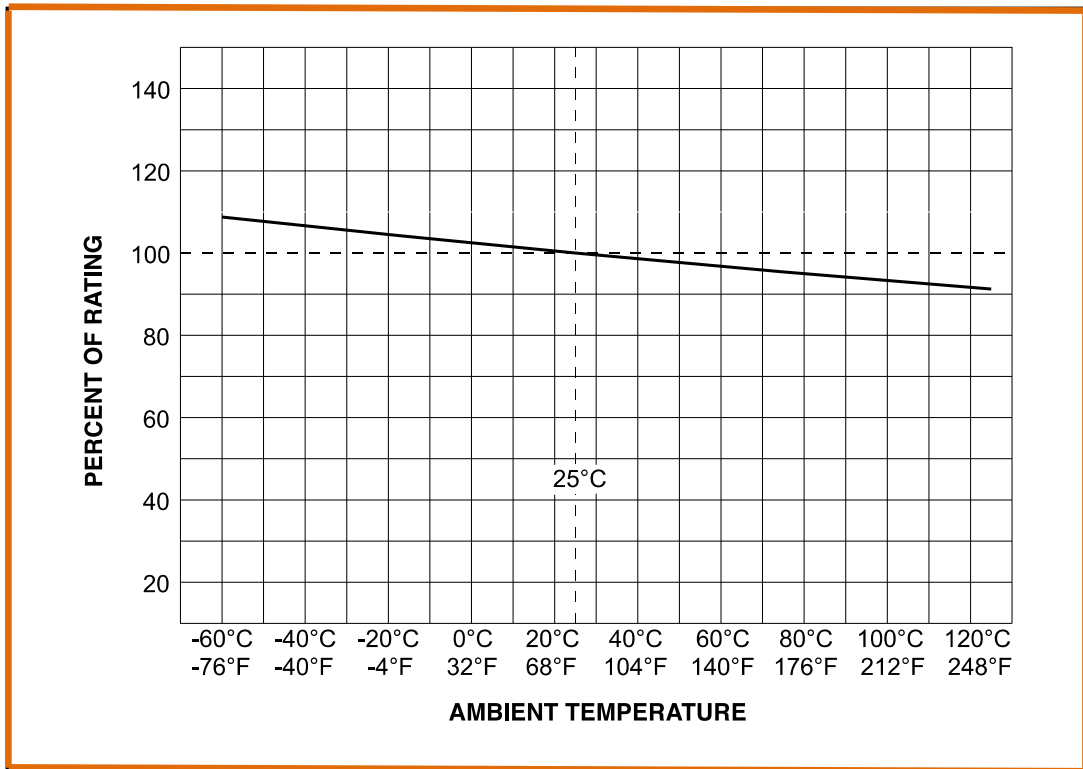
10.2 保存条件 Stock Condition

湿度：相对湿度 ≤ 75% 平均可以存放 3 年。

Humidity: Relative humidity ≤ 75% store 3 years in average.

10.3 若操作环境温度超出 $25\pm 5^{\circ}\text{C}$ 范围，在选用保险丝规格时，需考虑操作环境温度对保险丝的影响，请参照如下：温度-电流曲线图。

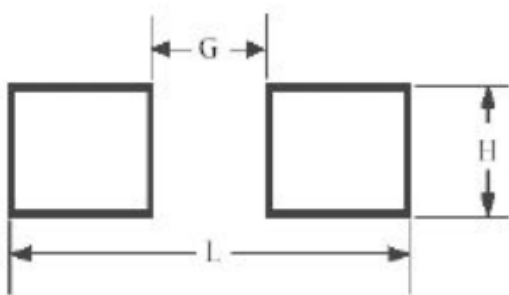
When choosing the fuse's specification, if the operating environmental temperature beyond the scope from $20\sim 30^{\circ}\text{C}$, engineer should consider the environmental temperature's affection to fuses. Please refer: Temperature Rerating Curve:



11. 安装建议 / Installation Recommendations

11.1 建议按照如下示意图方式进行安装。

Propose installation way as following picture.



| / | mm | inch |
|---|-----|-------|
| L | 8.7 | 0.343 |
| H | 2.9 | 0.114 |
| G | 3.0 | 0.118 |

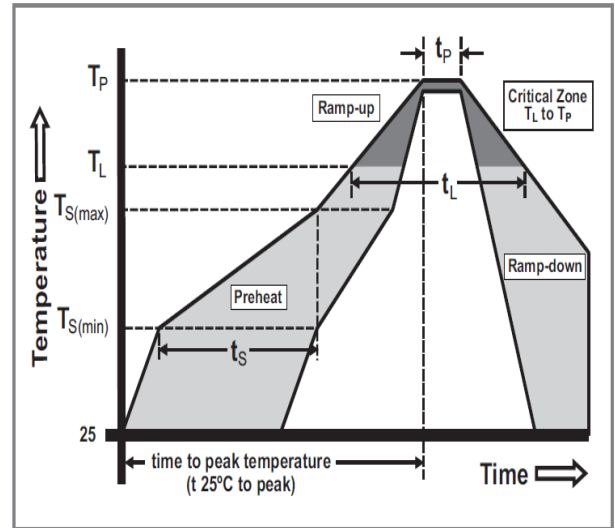
11.2 建议焊接参数 / Recommended Soldering Parameters

A. 波峰焊参数 / Wave Parameters:

锡炉温度 / Solder Pot Temperature: 250°C Max

焊接时间 / Solder Dwell Time:

| Reflow Condition | | Pb-Free assembly |
|------------------|-----------------------------|------------------|
| Preheating | -Temperature Min Ts(min) | 150°C |
| | -Temperature Max Ts(max) | 200°C |
| | -Time Max | 120 secs |
| Soldering | -Temperature (TL)(Liquidus) | 250°C |
| | -Time Max (TL) | 60 secs |
| | -Temperature (TP) | Max 250°C |
| | -Time Max (TP) | 10 secs |



B. 手工焊参数 / Hand-Solder Parameters:

烙铁温度 / Solder Iron Temperature: 350±5°C

焊接时间 / Heating Time: 3s Max

12. 包装 / Packaging

12.1 包装袋/盒印明下列标示: / The following items indicated on the label:

产品料号、额定(电压、电流)、分断类型及安规名称。

Catalog number, ratings (voltage, current), interrupting type and safety mark.

包装材料均符合 ROHS/REACH/HF 的环保要求，且包装材料不会和零件发生化学反应，造成不良。

The packing material conforms to ROHS/REACH/HF environmental protection request. And the packing materials will not have the chemical reaction with the components.

12.2 包装数量 / Packing Quantity

每 1000pcs 一卷/Every 1000 PCS for 1 roll

每盒 1 卷/Each box 1 volume

2410 规格书说明

125V 时，慢断名称为 SAT，对应的快断为 SAF；

250V 时，慢断名称为 SBT，对应的快断为 SBF；

300V 时，慢断名称为 SCT，对应的快断为 SCF。