

# 规格承认书

## Specification for approval

产品名称: PTU 系列 3.6\*10mm 慢断型 陶瓷管保险丝

**Product Type: Schurter SPT Equivalent PCB Or THT**

**Mounting 3.6x10mm Slow Blow Cartridge Ceramic Fuse 125V**

**100mA-12A**

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**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 UL 248 -1 / -14。

Standards: In accordance with UL 248 -1 / -14.

2.2 认证范围 Certification:

额定电压 Voltage Rating	安规标准 Agency	认证范围 Ampere Range	证书编号 Agency File Number
125V/250V	UL	250mA ~ 5A	E340427(JDYX)
	C-UL	250mA ~ 5A	E340427(JDYX7)

2.3 目录编号 Catalogue No., A=250V / B=125V, ● 已认证 Approved / ○ 认证中 Pending

目录编号 Catalog No.	额定电流 Ampere Rating	额定电压 Voltage Rating	分断能力 Breaking Capacity	熔化热能 I <sup>2</sup> TMelting Integral(A <sup>2</sup> .S)	安规认证 Agency Approvals		
					UL	cUL	PS E JET
PTU0100A/B	100mA	250V/125V	50A@125V/250VAC	0.0042	○	○	○
PTU0125A/B	125mA	250V/125V	50A@125V/250VAC	0.010	○	○	○
PTU0160A/B	160mA	250V/125V	50A@125V/250VAC	0.025	○	○	○
PTU0200A/B	200mA	250V/125V	50A@125V/250VAC	0.035	○	○	○
PTU0250A/B	250mA	250V/125V	50A@125V/250VAC	0.056	●	●	○
PTU0300A/B	300mA	250V/125V	50A@125V/250VAC	0.10	●	●	○
PTU0315A/B	315mA	250V/125V	50A@125V/250VAC	0.12	●	●	○
PTU0350A/B	350mA	250V/125V	50A@125V/250VAC	0.15	●	●	○
PTU0400A/B	400mA	250V/125V	50A@125V/250VAC	0.25	●	●	○
PTU0500A/B	500mA	250V/125V	50A@125V/250VAC	0.35	●	●	○
PTU0630A/B	630mA	250V/125V	50A@125V/250VAC	0.55	●	●	○
PTU0750A/B	750mA	250V/125V	50A@125V/250VAC	0.70	●	●	○
PTU0800A/B	800mA	250V/125V	50A@125V/250VAC	1.1	●	●	○

PTU1100A/B	1A	250V/125V	50A@125V/250VAC	2	●	●	○
PTU1125A/B	1.25A	250V/125V	50A@125V/250VAC	3.8	●	●	○
PTU1150A/B	1.5A	250V/125V	50A@125V/250VAC	4.2	●	●	○
PTU1160A/B	1.6A	250V/125V	50A@125V/250VAC	6.2	●	●	○
PTU1200A/B	2A	250V/125V	50A@125V/250VAC	13	●	●	○
PTU1250A/B	2.5A	250V/125V	50A@125V/250VAC	18	●	●	○
PTU1300A/B	3A	250V/125V	50A@125V/250VAC	28	●	●	○
PTU1315A/B	3.15A	250V/125V	50A@125V/250VAC	32	●	●	○
PTU1350A/B	3.5A	250V/125V	50A@125V/250VAC	39	●	●	○
PTU1400A/B	4A	250V/125V	50A@125V/250VAC	43	●	●	○
PTU1500A/B	5A	250V/125V	50A@125V/250VAC	50	●	●	○
PTU1600A/B	6A	250V/125V	50A@125V/250VAC	56	○	○	○
PTU1630A/B	6.3A	250V/125V	50A@125V/250VAC	60	○	○	○
PTU1700A/B	7A	250V/125V	50A@125V/250VAC	65	○	○	○
PTU1800A/B	8A	250V/125V	50A@125V/250VAC	70	○	○	○
PTU2100A/B	10A	250V/125V	50A@125V/250VAC	78	○	○	○
PTU2100A/B	12A	250V/125V	50A@125V/250VAC	80	○	○	○

### 3. 产品标示 / Product Marking

保险丝两端铜帽上需有下列标示。

The fuses cap shall have the following markings.

示例 Example:

	PTU	A	250V	
①	②	③	④	⑤

①	制造厂商标识/Ao littel Trade Mark:
②	系列型号名称/Series Type Name: <b>PTU</b> (慢断型/Time-Lag) 未标示
③	额定电流/Rated Current (A): ___A 或 or ___mA
④	额定电压/Rated Voltage (V): <b>125V/250V</b>
⑤	认证符号/ Approval Marks:

**注意 / Note:** 对于标示的大小和位置没有规定。

*Size and position of the markings shall not be provided.*

#### 4. 外观及形状 / Appearances and Configuration

4.1 外观不应出现显著的污点、裂纹，标识应该容易辨识。

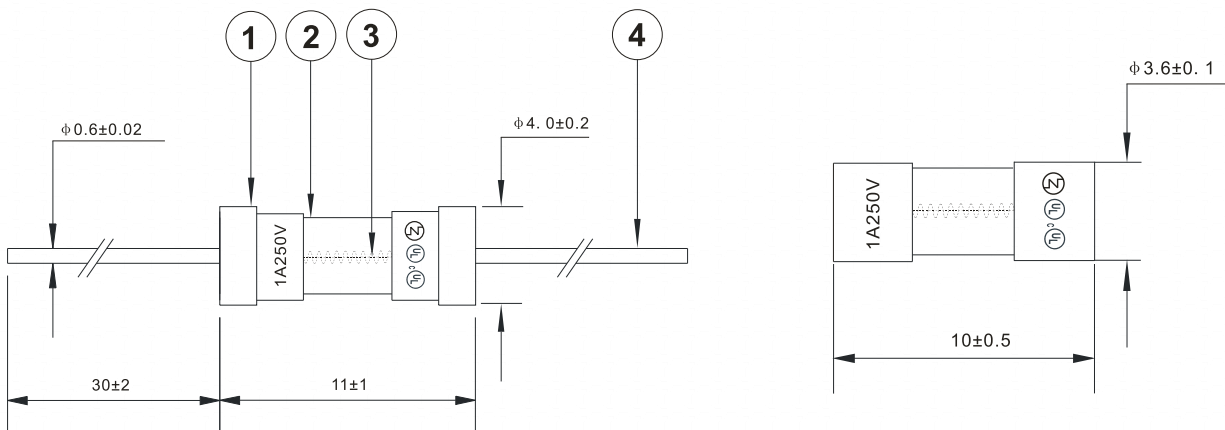
There shall not be any remarkable stain and crack on the appearances, markings shall be easily legible.

4.2 形状：带直线引脚小型陶瓷管保险丝。

Configuration: Axial Leaded Miniature Ceramic Tube Fuse.

#### 5. 结构及尺寸 / Dimensions and Structure

单位：毫米 / Unit: mm



#### 6. 材料明细 / Material Details

编号 NO.	零件名称 Part Name	材质 Material
①	铜帽 Cap	黄铜镀镍 Nickel Plated Brass
②	陶瓷管 Body	非透明陶瓷管 Non-Transparent Ceramic Tube
③	熔丝 Fuse element	合金 Alloy
④	引线 Lead wire	镀锡铜线 Tin Plated Copper

## 7. 产品特性 / Product Characteristics

### 7.1 引脚拉力强度 / Lead Pull Strength

5 牛顿 10±1 秒 / 5N for 10±1 Seconds

### 7.2 引脚推力强度 / Lead Thrust Strength

2 牛顿 10±1 秒 / 2N for 10±1 Seconds

### 7.3 可焊性 / Solder ability

波峰焊/Wave : 260℃, ≤3s;

烙铁焊/Soldering Iron: 350±10℃, ≤3s.

### 7.4 耐焊接热 / Soldering Heat Resistance

波峰焊/Wave : 260℃, 10s;

烙铁焊/Soldering Iron: 350℃, 5s.

## 8. 电气特性 / Electrical Characteristics

### 8.1 实验条件: Test Condition

所有测试环境温度温度为 25±5℃。

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

### 8.2 负载能力 / Load capacity:

当保险丝通过 100%的额定电流时, 在 4 小时内不应熔断。

When the fuse loads through 100% of rated current, should blow within 4 hours.

### 8.3 分断能力 / Interrupting Rating:

保险丝承受分断能力: 在 125/250 伏交流电源下, 可达 50 安培。

Breaking Capacity: 50A at 125V/250V AC.

### 8.4 温度上升试验 / Rising Temperature Test:

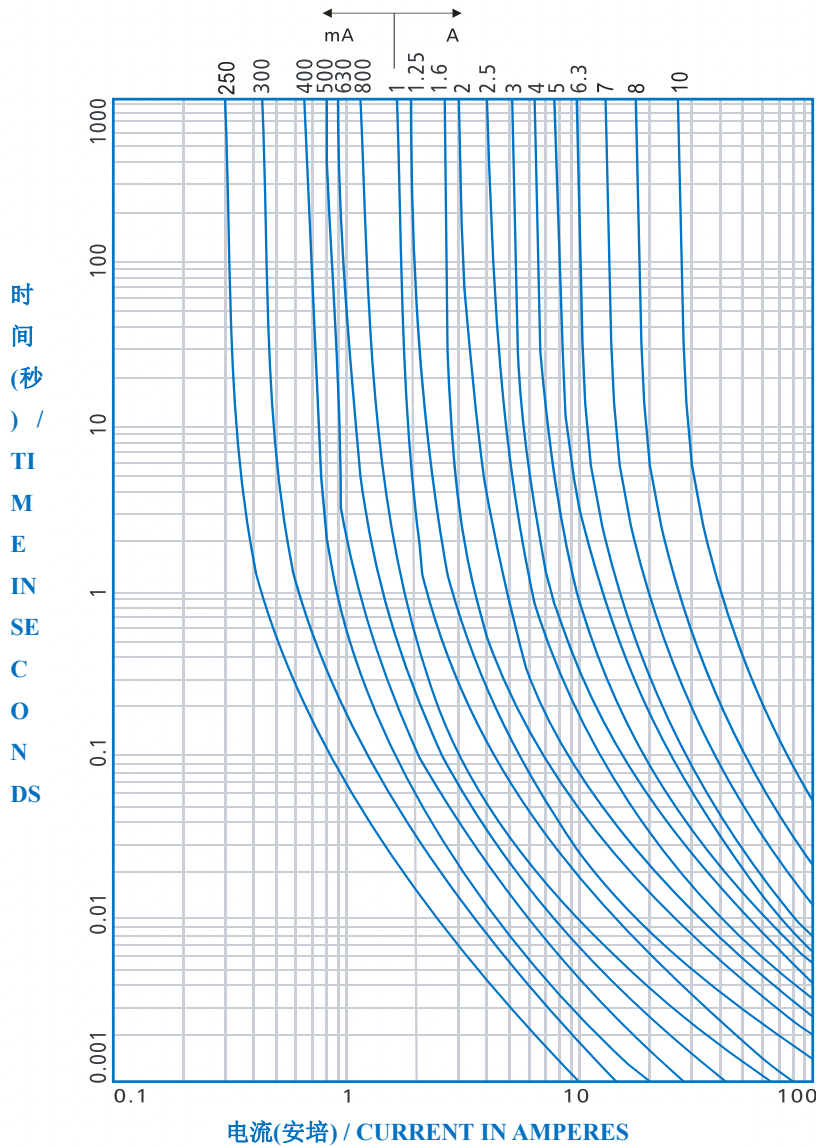
通 1.0 倍额定电流, 当温度稳定时 (5 分钟测量 4 次, 且每次测量值与平均值相差不超过 2℃)。测得熔断体任何部位的温升不得超过 75℃, 周围环境温度为 25±5℃。

When the 100% times of Ampere Rating passes the fuse, after reaching thermal balance , the temperature on the fuse surface rising shall not be higher than 75℃. Note: Rising temperature = the Surface temperature - Ambient temperature.

8.5 熔断时限 / Operating Characteristics

额定电流的% % of Ampere Rating(In)	熔断时间 Blowing Time
100% * In	大于 4 小时(4 hours Min)
200% * In	小于 60 秒 (60 sec Max)

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



9. 环境特性 / Environmental Characteristic

9.1 使用温度范围 / Operating Temperature

-55℃~+125℃。

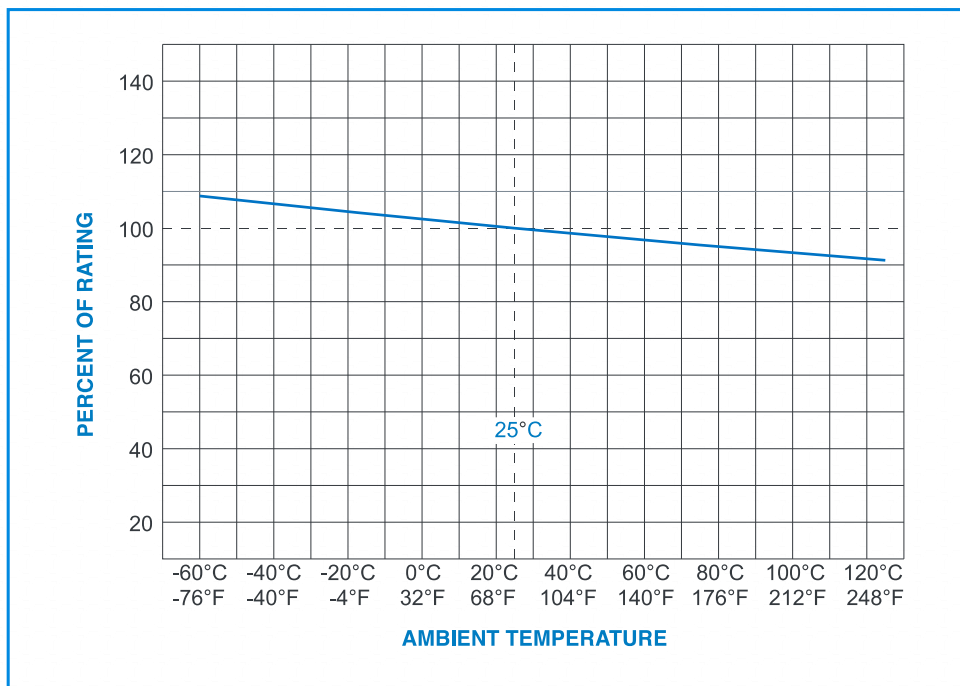
9.2 保存条件 Stock Condition

湿度：相对湿度 ≤ 75%平均可以存放 3 年。

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

9.3 若操作环境温度超出 25±5℃ 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 20~30℃, engineer should consider the environmental temperature's affection to fuses. Please refer: Temperature Rerating Curve:



10. 安装建议 / Installation Recommendations

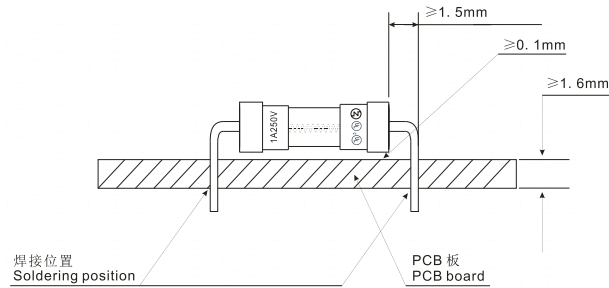
10.1 建议按照如下示意图方式进行安装。

Propose installation way as following picture.



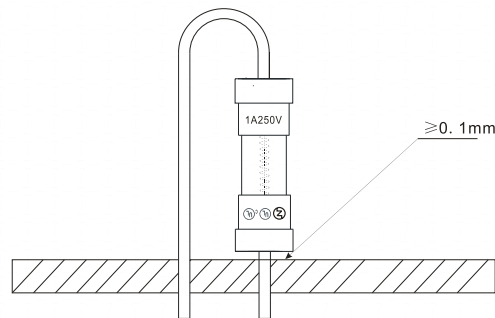
A、卧式安装

Horizontal installation



B、立式安装

Vertical installation



10.2 建议焊接参数 / Recommended Soldering Parameters

A. 波峰焊参数 / Wave Parameters:

锡炉温度 / Solder Pot Temperature: 260°C Max

焊接时间 / Solder Dwell Time: 2~5s

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: 5s Max

11. 包装 / Packaging

11.1 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.

11.2 包装数量 / Packing Quantity

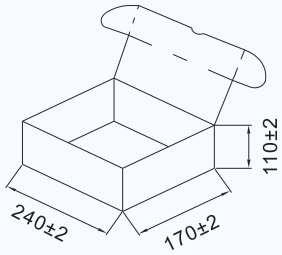
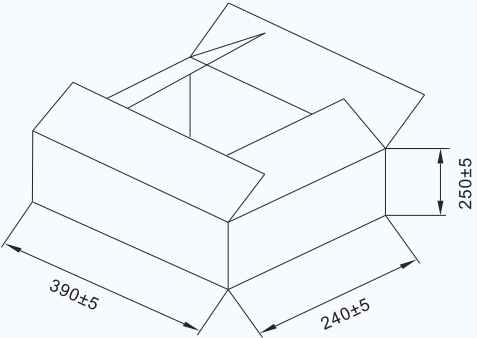
每胶袋 500 个保险丝 / Bulk 500 pcs in per poly bag;

每 10 胶袋 1 个内盒 / 10 poly bags in per inner box;

每 4 个内盒 1 个外箱 / 4 inner boxes in per outer carton

11.3 包装箱尺寸 / Packing Size

单位: 毫米 / Unit: mm

A. 内盒 Inner box:	B. 外箱 Outer carton:
L240±2 * W170±2 * H110±2	L390±5 * W240±5 * H250±5
	

其他 / Others

12.1 如果在使用中有超出本规格书的要求，须经双方协商确认。

In the event that an impropriety is found beyond this specification, it shall be fixed by mutual agreement between the parties.

12.2 如果本规格书有不适当的情况，须通过双方协商并由本公司修改。

In the event that an impropriety is found in this specification, *AO LITTEL TECHNOLOGY CO., LTD.* shall amend it by mutual agreement between the parties.

附件 I: 安规证书 / Appendix I: Safety approval certificates