



SOT Series

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, 广泛应用于电池充电、消费电子、电源供应、工业控制器等领域。

This product is suitable for various kinds of electronic devices' circuit over current protection. Widely used in industrial of Battery Charges, Consumer Electronics, Power supplies, Industrial Controllers, etc.

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

2.1 执行标准: 遵循IEC60127-1, IEC60127-3标准规格单4, GB9364.1-1997, GB9364.3-1997。Standards: In accordance with IEC60127-1, IEC60127-3 Standardsheet4, GB9364.1-1997, GB9364.3-1997.

2.2 证书编号(Agency File Number)

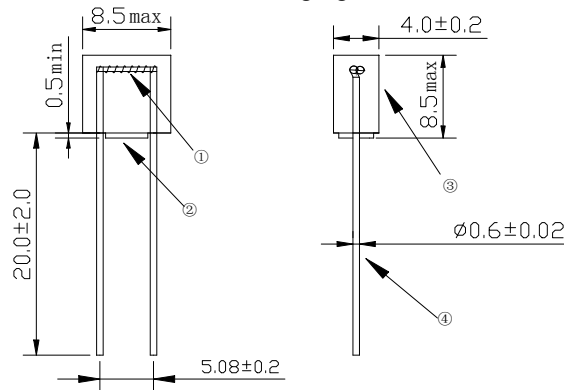
UR:E467707

CUL:E467707

TUV:PENDING

3. 形状, 外观及尺寸如下图(单位:mm)

The out view, construction and dimensions to the following figure. (Unit:mm)

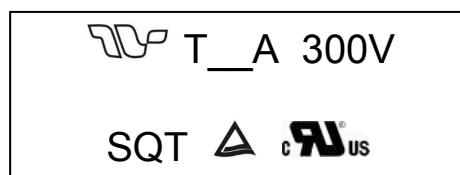


序号 NO.	部品名 Parts Name	材料 Material	数量 Quantity
①	可熔体 Fuse Element	合金线 Alloy Wire	1
③	外壳 case	耐热性塑料 Polyimide66 Thermoplastic, UL-94-V0	1
④	引线 Lead Wire	镀锡铜线 Tin plated Copper Wire	2

4. 产品标志(Marking)

4.1 保险丝上的标志应易于看清。

The relevant markings shall be marked on the caps of the fuse and shall be easily visible.







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4.2 保险丝上必须有下列标示:

The markings for every fuse shall be prescribed as below according to the types.

- 1) 制造工厂的标志 (Trademark): 
- 2) 熔断特性符号 (Characteristic Symbol): T (延时性的保险丝符号 symbol for Time-Lag)
- 3) 额定电流 (Rated Current): I_A
- 4) 额定电压 (Rated Voltage): 250V or 300V
- 5) 认证标示 (Approval Logo): 
- 6) 系列号 / Series No.: SQT

注意: 对标示的大小和位置没有规定

Note: Size and position of the markings shall not be provided.

5. 外观与形状(Appearance and shape)

5.1 外观(Shape)

外观不应有显著的污点,铁锈或裂纹且标示应很容易辨认的.

Appearance should not stain, rust or cracks and marked should be easily recognizable

5.2 形状(Appearance)

带直线引脚的微型保险丝(Radial leaded Micro Fuse)

6. 机械特性(Mechanical Performances)

保险丝应能承受下列二项试验。 Fuse shall withstand the following two tests.

6.1 拉力试验(Tensile Test)

将保险丝保持在一个固定的位置,沿引线方向施加 10N 的拉力,引线、方形塑料帽不能松动并且方形塑料帽不应破裂。

When fuse is fixed and the tensile force 10N is applied in a direction to lead, no looseness of leads and square thermoplastic cap or damage of square thermoplastic cap shall occur.

6.2 推力试验(Thrust Test)

将保险丝保持在一个固定的位置,沿引线方向施加 2N 的推力,引线、方形塑料不能松动并且方形塑料不应破裂。

When fuse is fixed and the thrust 2N is applied in a direction to lead, no looseness of leads and square thermoplastic cap or damage of square thermoplastic cap shall occur.

7. 电气特性 (Electrical Characteristic)

7.1 实验条件(Test Condition)

所有测试环境温度 $25 \pm 5^\circ\text{C}$,测试期间室内温度变化不得超过 5°C

All the test environment temperature of $25 \pm 5^\circ\text{C}$ during the test the indoor temperature must not exceed 5°C

7.2 负载能力(Load Capacity)

在通过 150%的额定电流 1 小时保险丝不能熔断,通电实验中保险丝连接处不能融化,保险丝外壳不能有烧焦,破裂现象.

A current 150% Rated Current is then passed through the fuse-link for 1hour, Power experiments, the fuse junction can not melt, fuse housing can not be burnt, rupture phenomenon.



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7.3 熔断时间/电流特性 Fusing Time-Current Characteristics

额定电流 Rated Current	熔断时间 Disconnection time
150%	1 Hour Min (大于 1 小时)
210%	120 sec Max (小于 120 秒)
275%	0.4~10s (0.4 到 10 秒)
400%	0.15~3s (0.15 到 3 秒)
1000%	0.02~0.15s (0.02 到 0.15 秒)

8. 电压降 (Voltage Drop)

熔断体在额定电流条件下,两端的电压降不应超过下表规定的最大值。

The voltage drop across the fuse-link at their rated current shall not exceed the maximum values is in Follows.

产品型号 Model	额定电流 Rated Current	额定电压 Rated Voltage	分断能力 Breaking Capacity	最大电压降 Maximum Voltage Drop (mV)	Safety Approvals	
						
SQT0.10M	100mA	250V AC 300V AC	350	100A@300V AC	●	○
SQT0.125M	125mA		300		●	○
SQT0.16M	160mA		280		●	○
SQT0.20M	200mA		260		●	○
SQT0.25M	250mA		240		●	○
SQT0.315M	315mA		220		●	○
SQT0.40M	400mA		200		●	○
SQT0.50M	500mA		190		●	○
SQT0.63M	630mA		180		●	○
SQT0.80M	800mA		160		●	○
SQT1.00M	1A		140		●	○
SQT1.25M	1.25A		130		●	○



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SQT1.60M	1.6A		120		●	○
SQT2.00M	2A		100		●	○
SQT2.50M	2.5A		100		●	○
SQT3.15M	3.15A		100		●	○
SQT4.00M	4A		100		●	○
SQT5.00M	5A		100		●	○
SQT6.30M	6.3A		100		●	○
SQT7.00M	7.0A		100		●	○
SQT8.00M	8.0A		100		●	○

● Approved ○ Pending

9. 温度上升 (Temperature Rise)

在 150% 额定电流条件下, 通电 15min 后, 将电流以每 15min 增加 10%, 直到保险丝断线, 保险丝各部位温度不超过 135℃

Power after 15min in 150% of rated current conditions, the current per 15min 10%, until the fuse blows, the fuse various parts of the temperature does not exceed 135 °C

10. 耐久性试验/ ENDURANCE TEST

耐久性试验过程 (The process of endurance test is as follows.)

- 1) 对熔断体通过 1 倍的额定电流 1 小时, 然后切断电流 15 分钟, 重复此循环 100 次。
current 1.0In is passed through the fuse-link for a period of 1hour. The current is then switched off for a period of 15 minutes. The cycle is repeated 100 times.
- 2) 然后对熔断体通以 1.5 倍额定电流 1 小时; 并测量两端电压降, 计算其最大功耗不能超过上表所规定的最大值。
Fuse through to 1.5 times the rated current of 1 hour; and measure the voltage drop across, to calculate the maximum power consumption can not exceed the above table under the maximum
- 3) 测量熔断体两端的电压降, 且电压降的增大量不大于试验前测得值 10%。
Measuring both ends of the fuse voltage drop, and a large number of the increased voltage drop is not greater than 10% of the measured value before the test.
- 4) 试验后, 标记仍应清晰可辨, 而且诸如端帽上的焊点不应出现任何明显的劣变。
After the test, the marking shall still be legible and soldered joints on end caps, for example, shall not show and appreciable deterioration.



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11. 分断能力 (Breaking Capacity)

额定分断能力为: 100A@300V。保险丝分断电路后, 方形塑料帽不应飞脱、损坏。

Rated breaking capacity is 100A@300V, tested with A.C. And after this test, there shall be not damaged or shattered of the square thermoplastic cap.

12. 焊接参数 (Soldering Parameters)

1) 波峰焊接 (Wave soldering) : 260°C, 10sec. Max..

2) 手工焊接 (Manual soldering) : 300°C, 3sec. Max..

13. 操作温度: -55°C至+125°C

Operating temperature: -55 °C to +125 °C

14. 保存条件

温度(Temperature): +10°C~+60°C

湿度(Humidity):相对湿度 $\leq 75\%$ 下平均可以存放 3 年

Average relative temperature $\leq 75\%$ can be stored for 3 years

在非露天情况下,相对湿度为 95%,最多可存放 30 天.

In the case of non-open, the relative humidity of 95%, can store up to 30 days

15. 包装要求(Packing Details)

15.1 包装方式(Packing Mode)

1) 散装 (Bulk) :500 个/小袋 500pcs/little plastic-bag

2) 盒装 (Boxed) :1000 个/盒, 10 小盒/大盒

1000pcs/box,10 little boxes/big box

15.2 所有产品的包装应能达到防潮、抗振的作用, 以防在运输或贮存过程中产品受潮或损坏

Packing should meet the requirements of anti-moisture and anti-shaking so that the products will not absorb moisture or be damaged during transportation or storage.

