

承 认 书

SPECIFICATION FOR APPROVAL

客户名称

Customer name

客户料号

Customer material No.

产品名称

Product name

贴片保险丝 (6125.2410.1808)

产品型号

Product model

送样日期

Deliver date

年

月

日

本司确认 (TRX APPROVAL)

| 检验 Inspection | 校对 Proofreading | 批准 Approval | 签章 Signature |
|------------------|--------------------|----------------|---|
| 唐军 | 唐盛华 | 罗雄 |  |

客户确认 (CUSTOMER APPROVAL)

| 检验 Inspection | 校对 Proofreading | 批准 Approval | 签章 Signature |
|------------------|--------------------|----------------|-----------------|
| | | | |

确认结果 Verify the results:

合格 Qualified

不合格 Unqualified

其他 Other

规格承认书

Specification for approval



表面贴装保险丝 250V

产品名称: SEF 系列 2410/6125/1808 快断型

Product Type: SEF Series 2410/6125/1808 *Fast-Acting*

Surface Mount Fuse 250V

Dongguan Reomax Electronics Technology Co., Ltd

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Reomax Electronics (HK) Limited

Add: 5th Floor, Bright way tower, No.33 Mong kok road, Kowloon Hong Kong.

Web: <http://www.reomaxfuse.net>



1. 产品特性及应用范围 / Description, Features and Applications

本产品适用于各类电子设备电路初、次级电路板的过流保护, 广泛应用于固态照明、电池充电、消费电子、电子镇流器、LED AC/DC 电源供应、网络通信、医疗仪器及工业控制器等领域。

Descriptions:

REOMAX 6125 series Fast-Acting square Surface Mount fuses are ceramic tube/end cap constructions, RoHS compliant, Halogen Free and lead(Pb) exempts of the requirements of RoHS Directive(2002/95/EC), with U.S. (UL/CSA) safety agency approvals. Provide board level primary and secondary circuit protection in a wide variety of applications. With excellent inrush current withstanding capability, excellent reliability for thermal and mechanic shock, also have a high reliability and stable solder ability, end caps are available in gold/silver/nickel plated.

Features:

- *Fast-Acting (Fast-Acting)*
- *Wide range of current rating available*
- *Low temperature de-rating*
- *Tape and Reel for automatic placement*
- *Small size(6.1mm*2.5mm)*
- *Wide operating temperature range*
- *RoHS compliant*
- *Conflict free metals*

Applications:

- LED lighting
- LCD backlight inverter
- PC server
- Wireless base station
- Digital camera
- Notebook PC
- Portable Devices
- Cooling fan system
- White goods
- Industrial equipment
- Battery devices
- Power supply
- Storage system
- Game console
- Medical equipment
- LCD/PDP devices
- Networking devices
- Telecom system
- Office equipment
- Automotive devices

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



2.1 执行标准: 遵循 UL 248-14。

Standards: In accordance with UL 248-14.

2.2 认证范围 Certification:

| 安规标准 Agency | 认证范围 Ampere Range | 证书编号 Agency File Number |
|----------------|----------------------|----------------------------|
| UL | 50mA ~ 7A | E340427(JDYX2) |
| cUL | 50mA ~ 7A | E340427(JDYX8) |

2.3 目录编号 Catalogue No., ● 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 | 冷阻值 Nominal Cold Resistance (Ohms) | 熔化热能 I ² T Melting Integral(A ² .S) | 安规认证 Agency Approvals | |
|---------------------|-----------------------|------------------------|---|---------------------------------------|--|---|---|
| | | | | | |  |  |
| SEF0160 | 160mA | 250VAC | 50A@300VAC 50A@250VAC 200A@125VAC | 2.308 | 0.058 | ● | ● |
| SEF0200 | 200mA | | | 1.655 | 0.062 | ● | ● |
| SEF0250 | 250mA | | | 1.456 | 0.065 | ● | ● |
| SEF0300 | 300mA | | | 0.855 | 0.191 | ● | ● |
| SEF0315 | 315mA | | | 0.656 | 0.202 | ● | ● |
| SEF0375 | 375mA | | | 0.605 | 0.330 | ● | ● |
| SEF0400 | 400mA | | | 0.580 | 0.338 | ● | ● |
| SEF0500 | 500mA | | | 0.302 | 0.475 | ● | ● |
| SEF0600 | 600mA | | | 0.268 | 0.775 | ● | ● |
| SEF0630 | 630mA | | | 0.259 | 0.986 | ● | ● |
| SEF0700 | 700mA | | | 0.233 | 2.105 | ● | ● |
| SEF0750 | 750mA | | | 0.227 | 2.240 | ● | ● |
| SEF0800 | 800mA | | | 0.205 | 2.380 | ● | ● |
| SEF1100 | 1A | | | 0.129 | 3.690 | ● | ● |
| SEF1125 | 1.25A | | | 0.095 | 3.760 | ● | ● |
| SEF1150 | 1.5A | | | 0.089 | 6.765 | ● | ● |
| SEF1160 | 1.6A | | | 0.078 | 6.805 | ● | ● |
| SEF1200 | 2A | | | 0.039 | 12.150 | ● | ● |
| SEF1250 | 2.5A | | | 0.036 | 16.025 | ● | ● |
| SEF1300 | 3A | | | 0.028 | 21.560 | ● | ● |
| SEF1315 | 3.15A | | | 0.027 | 25.750 | ● | ● |
| SEF1350 | 3.5A | | | 0.026 | 30.050 | ● | ● |
| SEF1400 | 4A | | | 0.020 | 43.208 | ● | ● |
| SEF1500 | 5A | | | 0.015 | 55.250 | ● | ● |
| SEF1600 | 6A | | | 0.013 | 75.245 | ● | ● |
| SEF1630 | 6.3A | | | 0.011 | 93.550 | ● | ● |
| SEF1700 | 7A | | | 0.010 | 97.120 | ● | ● |
| SEF1800 | 8A | | | 0.0080 | 108.750 | ○ | ○ |
| SEF2100 | 10A | 0.0072 | 118.380 | ○ | ○ | | |
| SEF2120 | 12A | 0.0050 | 140.080 | ○ | ○ | | |
| SEF2150 | 15A | 0.0035 | 210.680 | ○ | ○ | | |


- *: These catalog no. cold resistance and I²t value are pending due to fuse elements shall be customized;
- DC Cold Resistance are measured at <10% of rated current in ambient temperature of 25°C;

- Typical Pre-arching I2t are calculated at 10*In Current or 8ms;
- Min Interrupting Rating: 1.35*In.

3. 产品标示 / Product Marking

保险丝上需有下列标示 / The fuses shall have the following markings

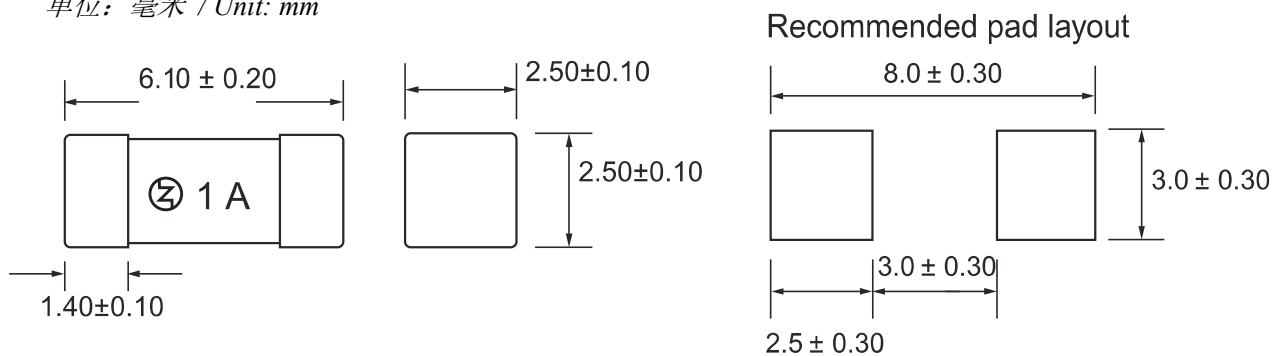
示例 Example:

| | | |
|---|-----------|---|
|  | 1A | ① 制造厂商标识/REOMAX Trade Mark:  |
| ① | ② | ② 额定电流/Rated Current (A): ___A 或 or ___mA |

注: 对于标示的大小和位置没有规定 / Note: Size and position of the markings shall not be provided.

4. 结构及尺寸 / Dimensions and Structure

单位: 毫米 / Unit: mm



5. 材料明细 / Material Details

| 编号 NO. | 零件名称 Part Name | 材质 Material |
|-----------|-------------------|---|
| ① | 端帽 End caps | 黄铜镀金 Gold Plated Brass Cap |
| ② | 主体 Body | 陶瓷管 Non-Transparent Square Ceramic Tube |
| ③ | 熔丝 Fuse element | 合金 Cu-Ag Alloy wire |

6. 产品特性 / Product Characteristics

| 编号 NO. | 项目 Item | 内容 Content | 参考标准 Reference standards |
|-----------|-------------------------|----------------------|-----------------------------|
| 1 | 产品标识 Product Marking | Brand, Ampere Rating | REOMAX marking standards |

| | | | |
|----|---|--|---|
| 2 | 工作温度 Operating Temperature | -55°C to 125°C | IEC60068-2-1/2 |
| 3 | 可焊性 Solderability | T=240°C ± 5°C, t=3sec ± 0.5sec, Coverage ≥ 95% | MIL-STD-202, Method 208 |
| 4 | 耐焊接热 Resistance to Soldering Heat | 10 sec at 260°C | MIL-STD-202, Method 210, Test condition B |
| 5 | 绝缘阻抗 Insulation Resistance (after Opening) | 10,000 ohms minimum | MIL-STD-202, Method 302, Test Condition A |
| 6 | 热冲击 Thermal Shock | 5 cycles, -65°C / +125°C, 15 minutes at each extreme | MIL-STD-202, Method 107, Test Condition B |
| 7 | 机械冲击 Mechanical Shock | 100G's peak for 6 milliseconds, 3cycles | MIL-STD-202, Method 213, Test I |
| 8 | 振动试验 Vibration | 0.03" amplitude, 10-55 Hz in 1 min. 2hrs each XYZ=6hrs | MIL-STD-202, Method 201 |
| 9 | 耐湿性 Moisture Resistance | 10 cycles | MIL-STD-202, Method 106 |
| 10 | 盐雾试验 Salt Spray | 5% salt solution, 48hrs | MIL-STD-202, Method 101, Test Condition B |

7. 电气特性 / Electrical Characteristics

7.1 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.

7.2 分断能力 Interrupting Rating:

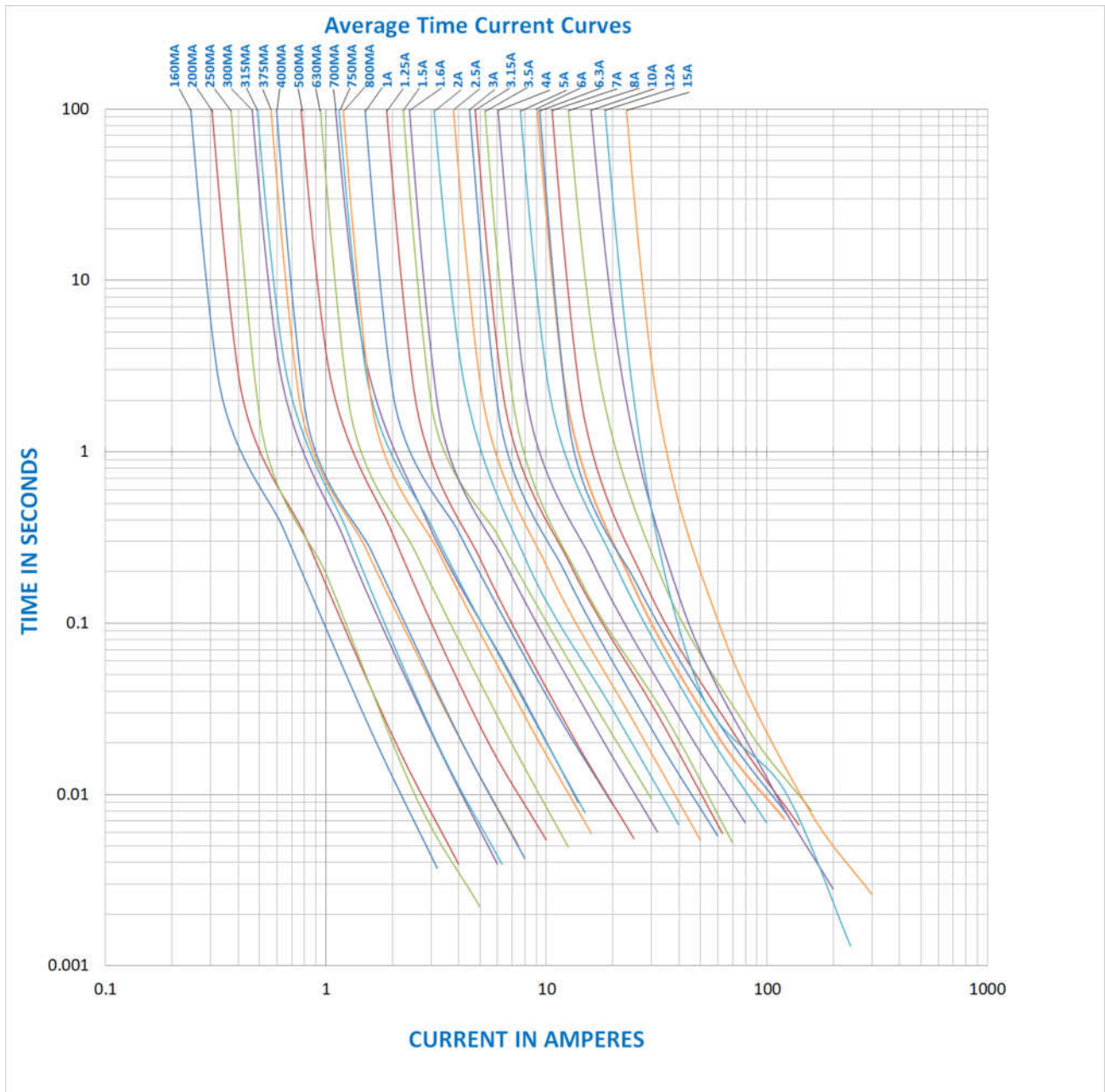
保险丝承受分断能力: 50A@250Vac, 200A@125Vac.

Breaking Capacity: 50A@250Vac, 200A@125Vac.

7.3 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 120 秒 (120 sec Max) |

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

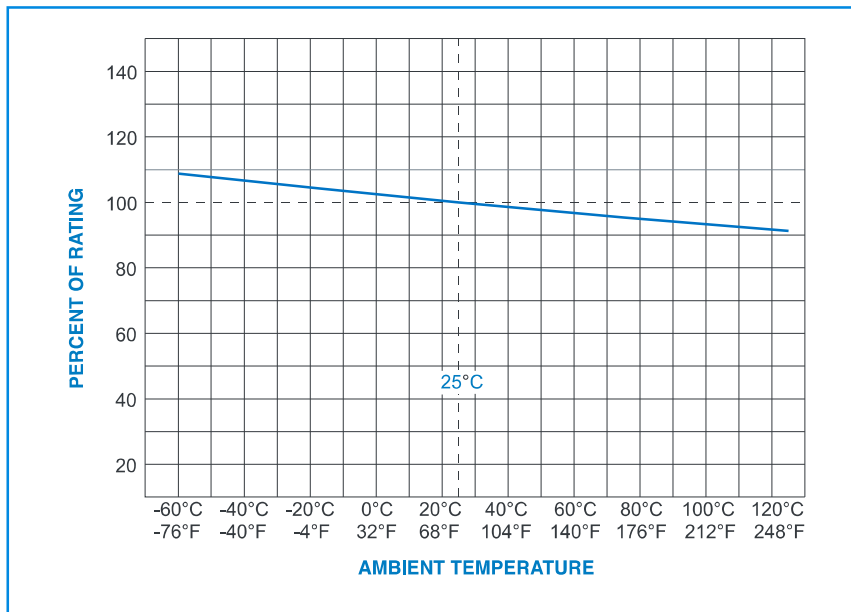


8. 环境特性 / Environmental Characteristic

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:



9. 建议焊接参数 / Recommended Soldering Parameters

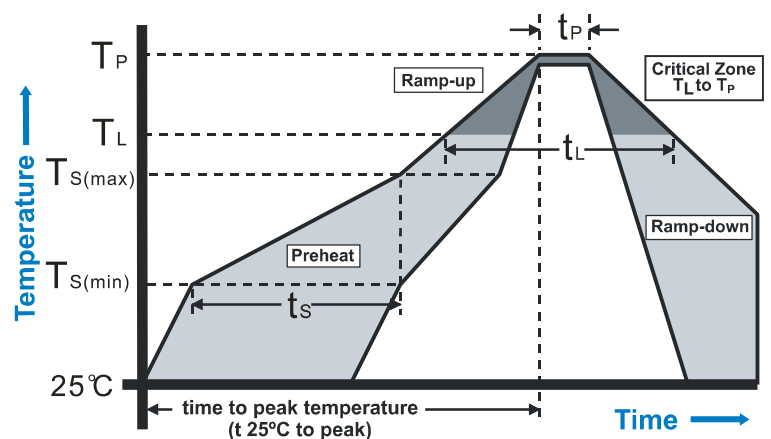
A. 波峰/回流焊参数 / Wave / Reflow Soldering Parameters:

锡膏工艺 / Solder paste process.

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

焊接时间 / Solder Dwell Time: 5 seconds max

| Reflow Condition | | Pb-Free assembly |
|--------------------------------------|---------------------------|-------------------|
| Average ramp-up rate (Ts(max) to Tp) | | 5°C / second max. |
| Preheat | Temperature Min (Ts(min)) | 150°C |
| | Temperature Max (Ts(max)) | 200°C |
| | Time (Min to Max) (ts) | 60-120 seconds |
| Reflow | Temperature (TL) | 220°C |
| | Time Max (tL) | 60 seconds |
| Peak Temperature (Tp) | | 260°C max |
| Ramp-down Rate | | 5°C/second max |
| Time 25°C to peak Temperature (Tp) | | 8 minutes max |



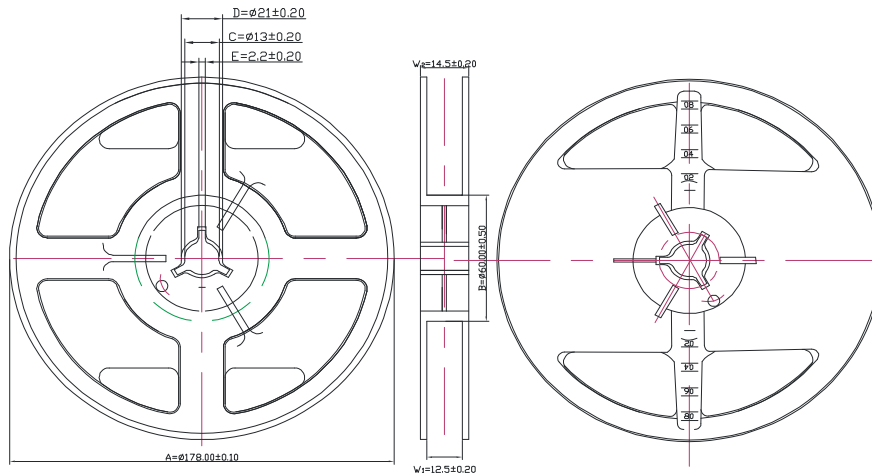
B. 手工焊参数 / Hand-Solder Parameters:

烙铁温度 / Solder Iron Temperature: 300 ± 5°C

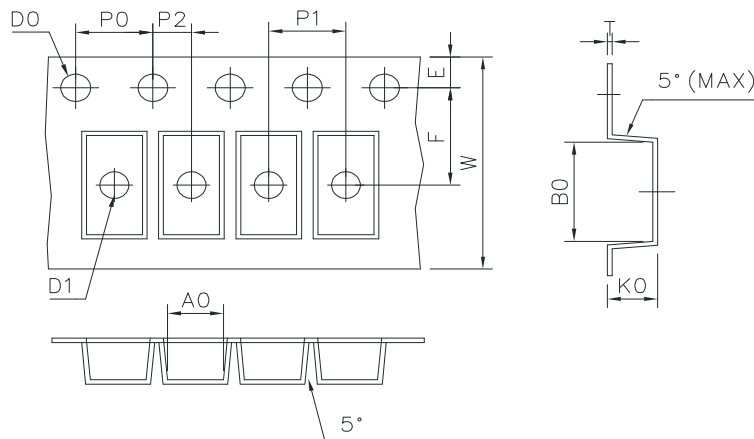
焊接时间 / Heating Time: 1~2 s Max

10. 包装 / Packaging

1000 个每卷/ 1,000 pcs in 7 inches dia. reel, 12mm wide tape, EIA Standard 481



| Item | A | B | C | D | E | W1 | W2 |
|-----------|----------|---------|---------|---------|----------|-----------|-----------|
| Spec.(mm) | 178±0.10 | 60±0.50 | 13±0.20 | 21±0.20 | 2.2±0.20 | 12.5±0.20 | 14.5±0.20 |



| Item | A_0 | B_0 | D_0 | D_1 | E | F |
|-----------|-----------|-----------|-----------|-----------|------------|-----------|
| Spec.(mm) | 2.70±0.10 | 6.40±0.10 | 1.50±0.10 | 1.50±0.25 | 1.75±0.10 | 5.50±0.10 |
| Item | K_0 | P_0 | P_1 | P_2 | W | t |
| Spec.(mm) | 2.70±0.10 | 4.00±0.10 | 4.00±0.10 | 2.00±0.10 | 12.00±0.15 | 0.25±0.05 |

11. 其他 / Others

11.1 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.

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