

## 规格承认书

## SPECIFICATION FOR APPROVAL

客户名称:

CUSTOMER: \_\_\_\_\_

产品名称:

贴片保险丝 SMD FUSE

PRODUCT NAME: \_\_\_\_\_

型号:

1550H (RoHS) 5.0\*15 (1550) mm

MODEL NO.: \_\_\_\_\_

客户规格:

CUST.SPECIFICATION: \_\_\_\_\_

客户料号:

CUST.PART NO.: \_\_\_\_\_

供应商:

SUPPLIER:

DONGGUAN REOMAX ELECTRONICS TECHNOLOGY CO LTD

地址:

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供方签章:

SUPPLIER:

日期:

DATE:

需方签章:

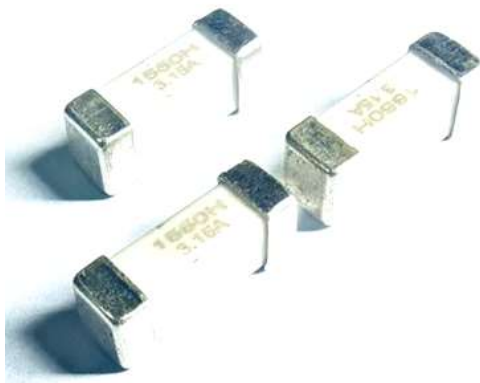
CUSTOMER:

日期:

DATE:

# 规格承认书

## Specification for approval



表面贴装保险丝

产品名称: 1550H 系列慢断型

Product Type: 1550H Series *Time-Lag*

*Surface Mount Fuse 500V*

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**Reomax Electronics (HK) Limited**

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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 1550H series slow-blow 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:

- Time-Lag (Slow-Blow)
- Wide range of current rating available
- Low temperature de-rating
- Tape and Reel for automatic placement
- Small size(10.2mm\*3.2mm)
- 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	100mA ~ 60A	Pending
cUL	100mA ~ 60A	Pending

## 1.3 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) $\pm$ 20%	熔化热能 I <sup>2</sup> T Meltin g Integral (A <sup>2</sup> .S)	安规认证 Agency Approvals	
							
1550H.3.15	<b>3.15A</b>	500V/350VACDC 277V/250VACDC	100A@500V350V 1500A@277VAC250VDC	71m $\Omega$	29.7	○	○

- \*: These catalog no. cold resistance and I<sup>2</sup>t 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-arcing I<sup>2</sup>t are calculated at 10\*In Current or 8ms;
- Min Interrupting Rating: 1.35\*In.

## 2. 产品标示 / Product Marking

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

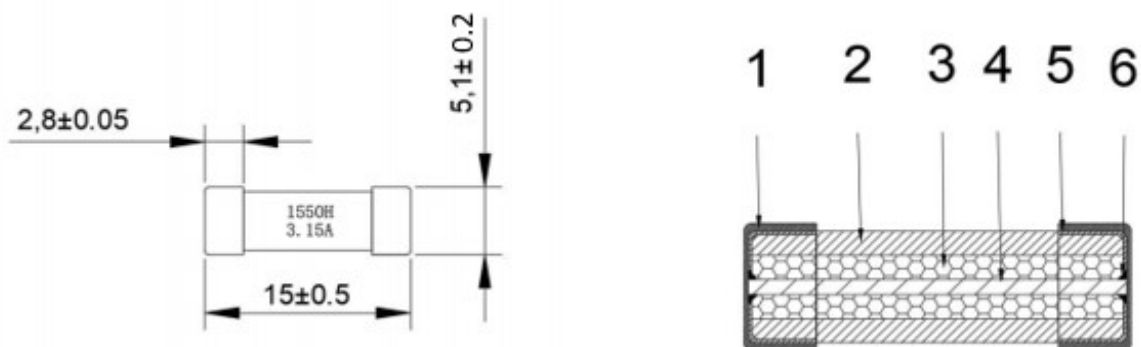
示例 Example:

1	<b>1550H</b>	<b>3.15A</b>	① 制造厂商型号/REOMAX Trade model 1550H
	①	②	② 额定电流/Rated Current (A): <u>3.15 A</u> 或 or <u>    </u> mA

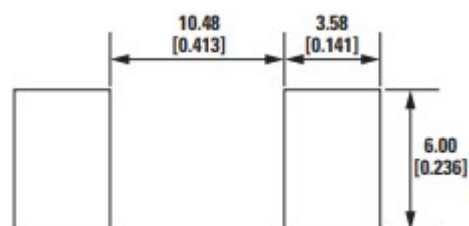
注: 对于标示的大小和位置没有规定 / Note: Size and position of the markings shall not be provided.

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

单位: 毫米 / Unit: mm



Recommended pad layout



#### 4. 材料明细 / Material Details

编号 NO.	零件名称 Part Name	材 质 Material
1	端帽 End caps	黄铜镀银 Ag Plated Brass Cap
2	主体 Body	陶瓷管 Non-Transparent Square Ceramic Tube
3	填充物 filler	二氧化硅
4	熔丝 Fuse element	合金 Cu-Ag Alloy wire
5	内帽	黄铜
6	焊锡	SN

#### 5. 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	-55°C to 125°C with proper derating
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	5% salt solution, 48hrs	MIL-STD-202, Method 101, Test

Salt Spray

Condition B

## 6. 电气特性 / Electrical Characteristics

### 7.1 实验条件: Test Condition

所有测试环境温度为  $25\pm 5^{\circ}\text{C}$ 。

All electrical test is to be conducted with the ambient air at a temperature of  $25\pm 5^{\circ}\text{C}$ .

### 7.2 分断能力 Interrupting Rating:

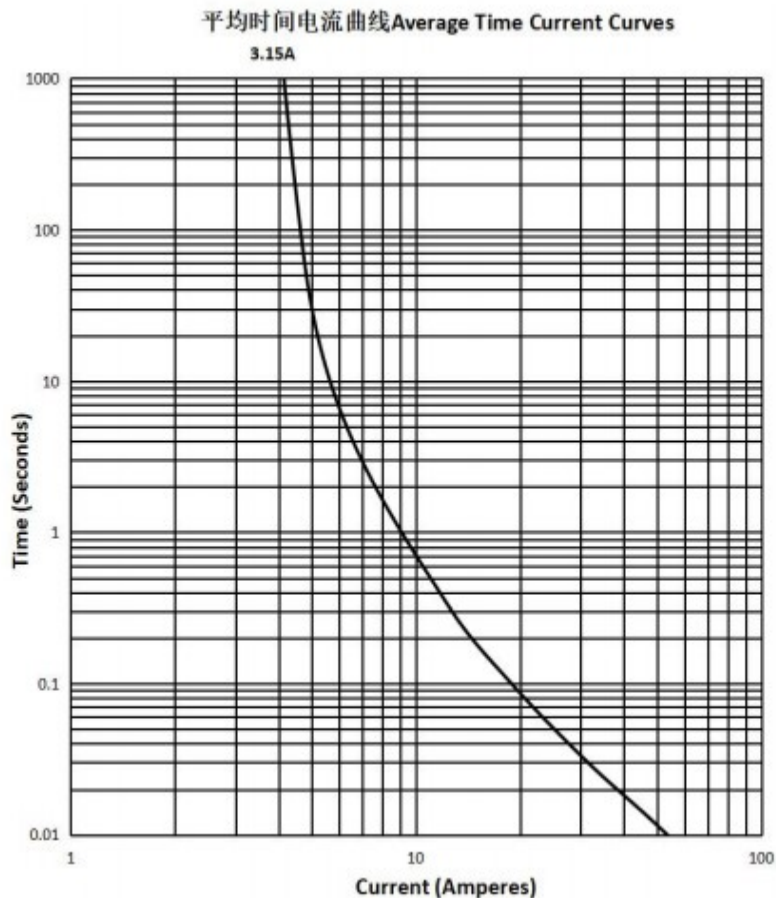
保险丝承受分断能力: 500V@100A ac/dc

Breaking Capacity: 500V@100A ac/dc

### 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

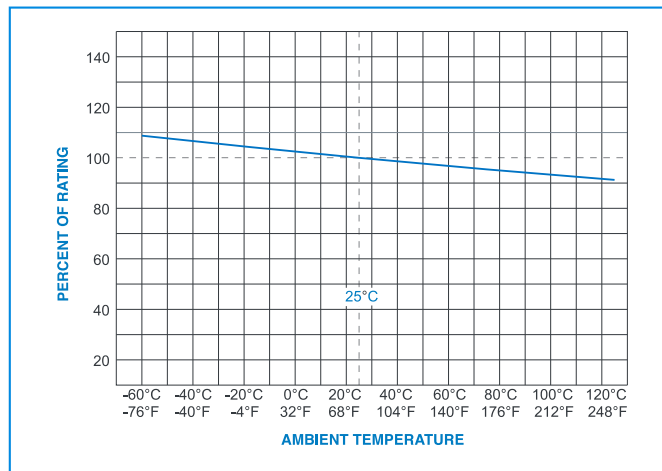


## 7. 环境特性 / Environmental Characteristic

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:



## 8. 建议焊接参数 / Recommended Soldering Parameters

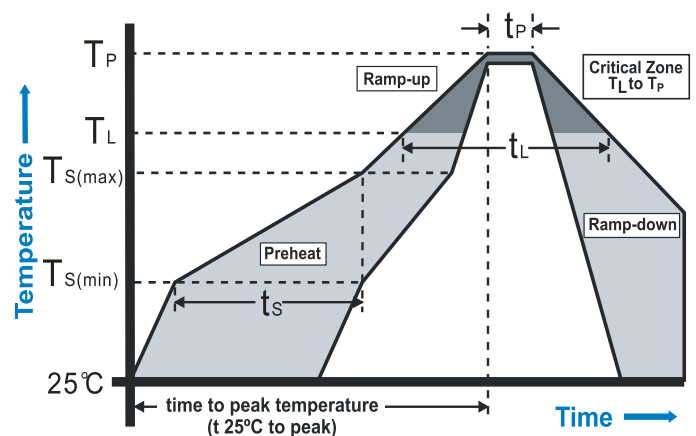
### A. 波峰/回流焊参数 / Wave /Reflow Soldering Parameters:

锡膏工艺 / Solder paste process.

锡炉温度 / Solder Pot Temperature:  $260^\circ\text{C}$  Max

焊接时间 / Solder Dwell Time: 5 seconds max

Reflow Condition		Pb-Free assembly
Average ramp-up rate ( $T_{s(\max)}$ to $T_p$ )		$5^\circ\text{C}$ /second max.
Preheat	Temperature Min ( $T_{s(\min)}$ )	$150^\circ\text{C}$
	Temperature Max ( $T_{s(\max)}$ )	$200^\circ\text{C}$
Time (Min to Max) ( $t_s$ )		60-120 seconds
Reflow	Temperature ( $T_L$ )	$220^\circ\text{C}$
	Time Max ( $t_L$ )	60 seconds
Peak Temperature ( $T_p$ )		$260^\circ\text{C}$ max
Ramp-down Rate		$5^\circ\text{C}$ /second max
Time $25^\circ\text{C}$ to peak Temperature ( $T_p$ )		8 minutes max



**B. 手工焊参数 / Hand-Solder Parameters:**烙铁温度 / Solder Iron Temperature:  $300 \pm 5^{\circ}\text{C}$ 

焊接时间 / Heating Time: 1~2 s Max

**9. 包装 / Packaging**

1.1500/PCS

**10. 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**

UL Product iQ™

**JDYX2.E340427 - FUSES, SUPPLEMENTAL -  
COMPONENT****Fuses, Supplemental - Component**

See General Information for Fuses, Supplemental - Component

**DONGGUAN REOMAX ELECTRONICS TECHNOLOGY CO LTD**

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**Supplemental fuses**

E340427