

## 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:

R1032T (RoHS) 3.2\*10.2 (1032) 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:

东莞市大岭山镇大塘村地塘岭工业园

ADDRESS: Ditangling Industrial Zone Datang Village Dalingshan Town Dongguan Cn

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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 350V400V

产品名称: R1032T 系列 1032/1025 慢断型

Product Type: R1032T Series 1032/1025 *Time-Lag*

*Surface Mount Fuse 350V400V*

**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 R1032 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	1A ~ 3.15A	E340427(JDYX2)
cUL	1A ~ 3.15A	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 <sup>2</sup> T Melting Integral(A <sup>2</sup> .S)	安规认证 Agency Approvals	
							
R1032T.1100	1A	350V/400V DC	100A@350V/400V 50A@400V350V	0.177	4.011	●	●
R1032T.1125	1.25A			0.122	7.340	●	●
R1032T.1150	1.5A			0.072	11.92	●	●
R1032T.1160	1.6A			0.071	12.63	●	●
R1032T.1200	2A			0.055	14.40	●	●
R1032T.1250	2.5A			0.041	28.12	●	●
R1032T.1300	3A			0.032	44.90	●	●
R1032T.1315	3.15A			0.031	45.60	●	●

- \*: 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-arcing 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

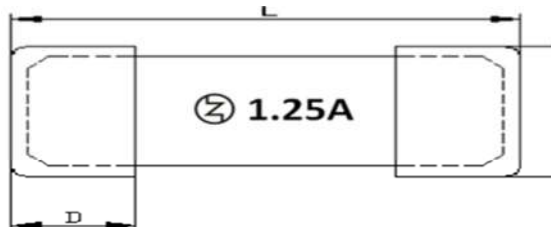
示例 Example:

	1.25A	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.

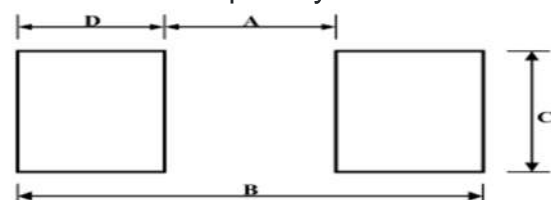
## 4. 结构及尺寸 / Dimensions and Structure

单位: 毫米 / Unit: mm



L (mm)	W (mm)	T (mm)	D (mm)
10.25±0.20	3.20±0.15	3.20±0.15	1.90±0.10

Recommended pad layout



Dimensions	A(mm)	B (mm)	C(mm)	D(mm)
Spec	5.72±0.3	12.6±0.3	3.43±0.3	3.25±0.3

## 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 Au 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	-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 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  $25\pm 5^{\circ}\text{C}$ 。

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:

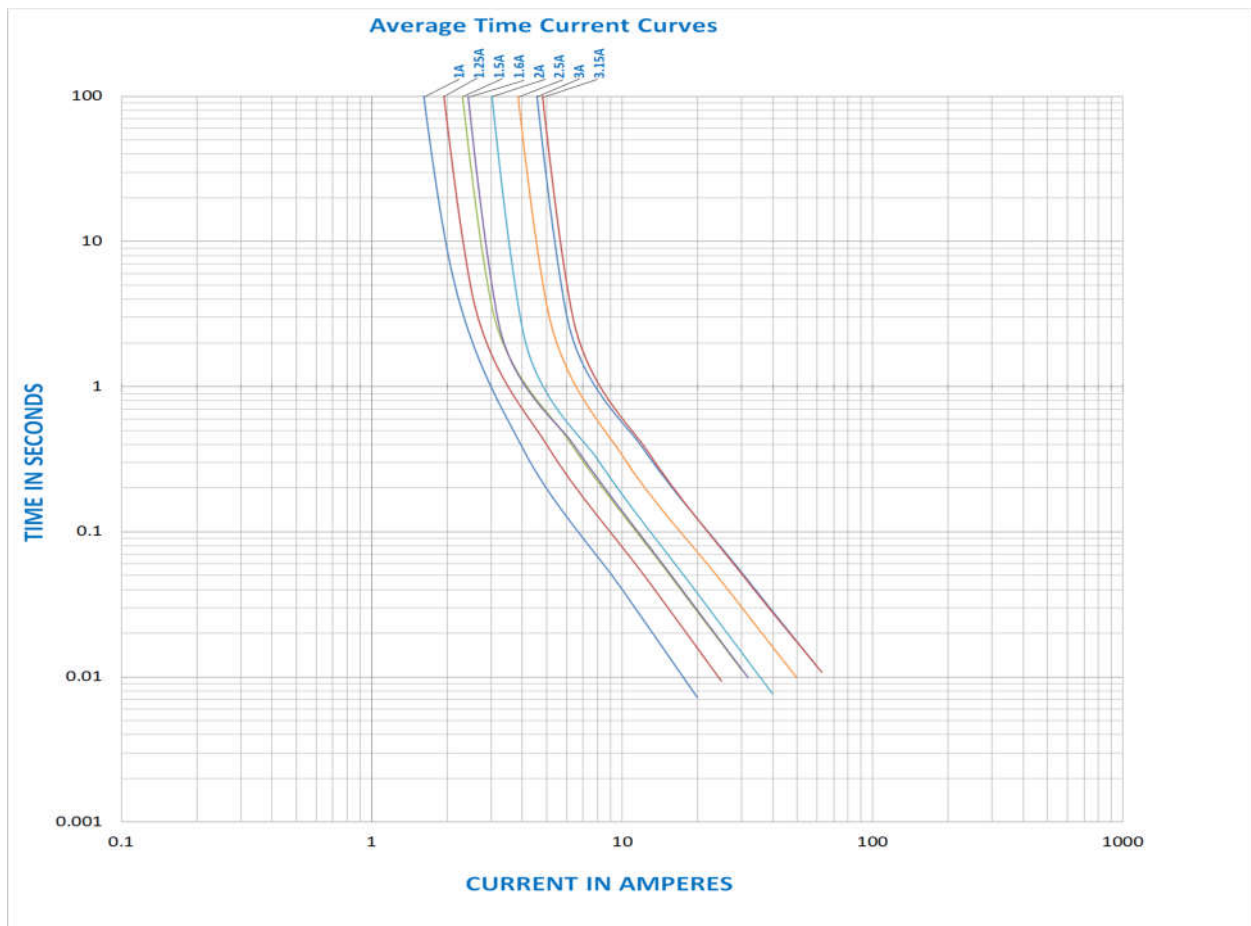
保险丝承受分断能力:  $50\text{A}@350\text{V}400\text{Vdc}$ ,  $100\text{A}@350\text{V}400\text{Vdc}$ .

Breaking Capacity:  $50\text{A}@350\text{V}400\text{Vdc}$ ,  $100\text{A}@350\text{V}400\text{Vdc}$ .

## 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

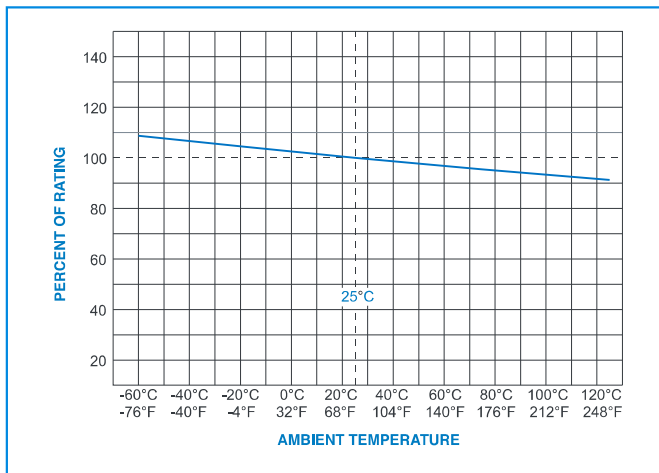


## 8. 环境特性 / Environmental Characteristic

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 20~30°C, engineer should consider the environmental temperature's affection to fuses.

Please refer: Temperature Derating Curve:



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

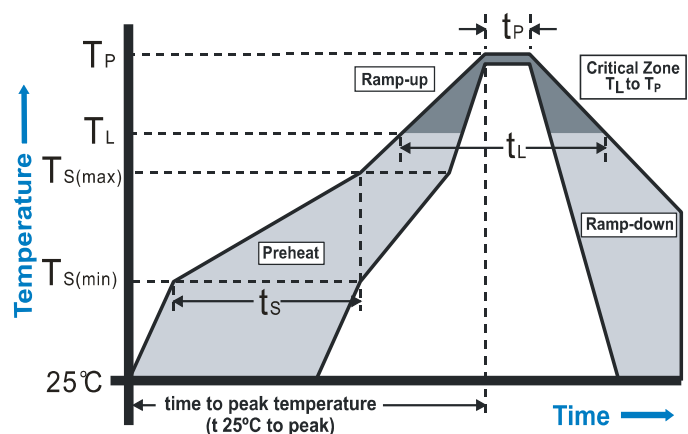
### A. 波峰/回流焊参数 / Wave /Reflow Soldering Parameters:

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



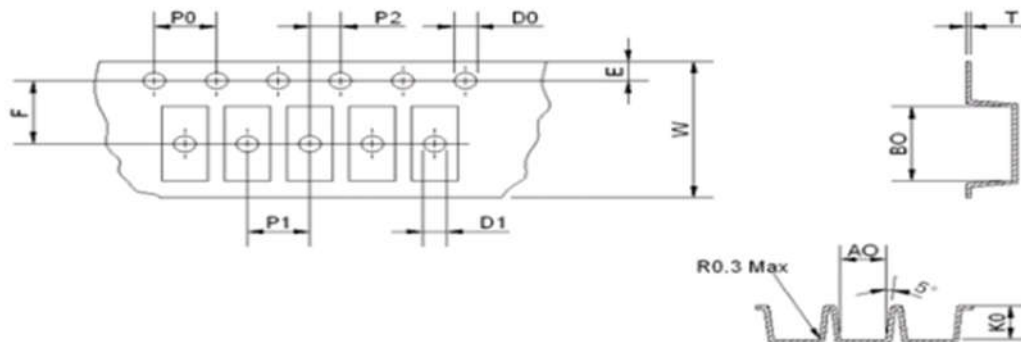
### B. 手工焊参数 / Hand-Solder Parameters:

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

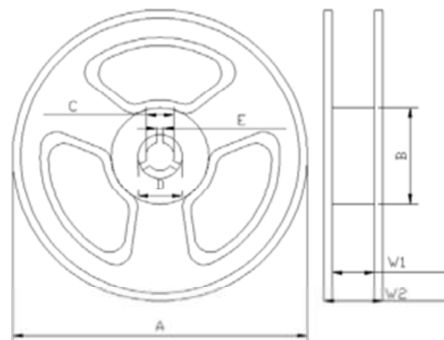
焊接时间 / Heating Time: 1~2 s Max

## 10. 包装 / Packaging

2000 pieces of fuses on 24mm tape-and-reel on 13 inch (330mm) reel



Symbol	A0(mm)	B0(mm)	E(mm)	F(mm)	W(mm)	K0(mm)
Spec.	3.50±0.10	10.60±0.15	1.75±0.10	11.50±0.10	24.00±0.30	3.50±0.10
Symbol	P0(mm)	P1(mm)	P2(mm)	D0(mm)	D1(mm)	T(mm)
Spec.	4.00±0.10	8.00±0.10	2.00±0.10	1.50+0.10/-0	1.50+0.10/-0	0.35±0.05



Type	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	W1(mm)	W2(mm)
Spec	330.0±2.0	100.0±1.5	13.0±0.5	21.0±0.5	2.2±0.2	24.5±1.5	28.5±2.0

## 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**

UL Product iQ™



# JDYX2.E340427 - FUSES, SUPPLEMENTAL - COMPONENT

## Fuses, Supplemental - Component

See General Information for Fuses, Supplemental - Component

**DONGGUAN REOMAX ELECTRONICS TECHNOLOGY CO LTD**

 Ditangling Industrial Park Datang Village Dalingshan Town  
 Dongguan, Guangdong 523800 CHINA

E340427

**Supplemental fuses**
**R1032T followed by .01, .02, .03, TD, FF or blank, followed by .0, followed by 01-60.**

	11 x 3.85 x 3.85 (0.43 x 0.15 x 0.15)	1 - 3.15	400Vdc	100
		1 - 3.15	350Vdc	100
		1 - 3.15	400Vdc	50
		1 - 3.15	350Vdc	50
		0.1 - 40	250Vdc	150
		0.1 - 40	125Vdc	150
		0.1 - 40	72Vdc	500
		0.1 - 60	125Vdc	150
		0.1 - 60	100Vdc	150
		0.1 - 60	72Vdc	150
		0.1 - 60	63Vdc	150
		0.1 - 60	60Vdc	500
		0.1 - 60	32Vdc	1000