

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

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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 250V125V72V63V32V

产品名称: R1032T 系列 1032/1025 慢断型

Product Type: R1032T Series 1032/1025 Time-Lag

Surface Mount Fuse 250V125V72V63V32V

Dongguan Reomax Electronics Technology Co., Ltd

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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 cUL	200mA ~ 40A	E340427(JDYX2)
TUV	200mA ~ 40A	J 50519351
CQC	500mA-20A	CQC21012315651 CQC20012257696
KC	500mA-5A	SU05052-20011/20012/20013

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)	熔化热能 I ² TMelting Integral(A ² .S)	安规认证 Agency Approvals			
						UL	CE	CCC	RoHS
R1032T.0200	200mA	250V/125V ACDC 72V/100V DC 63V60V/32V DC	1KA@32V 500A@72V60V 150A@63V72V100V 150A@125V250V	2.550	0.08	●	●	○	○
R1032T.0250	250mA			1.630	0.218	●	●	○	○
R1032T.0300	300mA			1.102	0.387	●	●	○	○
R1032T.0315	315mA			1.040	0.367	●	●	○	○
R1032T.0375	375mA			0.621	0.631	●	●	○	○
R1032T.0400	400mA			0.600	0.650	●	●	○	○
R1032T.0500	500mA			0.551	1.01	●	●	●	●
R1032T.0600	600mA			0.360	2.01	●	●	○	○
R1032T.0630	630mA			0.351	2.02	●	●	○	○
R1032T.0700	700mA			0.190	3.73	●	●	○	○
R1032T.0750	750mA			0.186	3.83	●	●	○	○
R1032T.0800	800mA			0.180	3.91	●	●	○	○
R1032T.1100	1A			0.177	4.01	●	●	●	●
R1032T.1125	1.25A			0.112	7.34	●	●	●	●
R1032T.1150	1.5A			0.072	11.92	●	●	○	○
R1032T.1160	1.6A			0.071	12.63	●	●	●	●
R1032T.1200	2A			0.054	14.40	●	●	●	●
R1032T.1250	2.5A			0.041	28.12	●	●	○	○
R1032T.1300	3A			0.032	45.3	●	●	○	○
R1032T.1315	3.15A			0.031	45.6	●	●	●	●
R1032T.1350	3.5A			0.024	63.5	●	●	○	○
R1032T.1400	4A			0.022	64.1	●	●	○	○
R1032T.1500	5A			0.015	112.0	●	●	●	●
R1032T.1600	6A			0.013	145.3	●	●	○	○
R1032T.1630	6.3A			0.012	145.6	●	●	○	○
R1032T.1700	7A			0.0083	147.2	●	●	○	○
R1032T.1800	8A			0.0080	161	●	●	●	○
R1032T.2100	10			0.0053	170	●	●	●	○
R1032T.2120	12A			0.0045	187	●	●	○	○
R1032T.2150	15A			0.0038	337	●	●	●	○
R1032T.2160	16A			0.0032	338	●	●	○	○
R1032T.2200	20A			0.0024	720	●	●	●	○
R1032T.2250	25A			0.0018	1182	●	●	○	○
R1032T.2300	30A			0.0014	2050	●	●	○	○

R1032T.2400	40A			0.0012	3750	●	●	○	○	●
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- *: 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.

2. 产品标示 / Product Marking

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

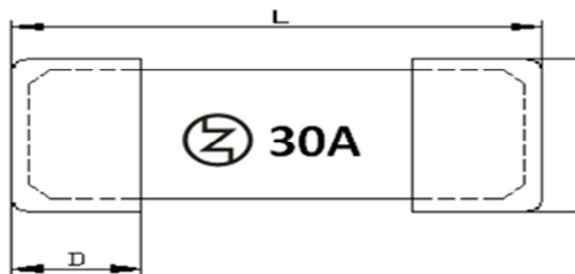
示例 Example:

	30A	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.

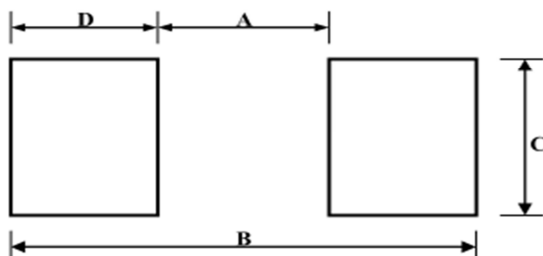
3. 结构及尺寸 / Dimensions and Structure

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

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

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 Salt Spray	5% salt solution, 48hrs	MIL-STD-202, Method 101, Test 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:

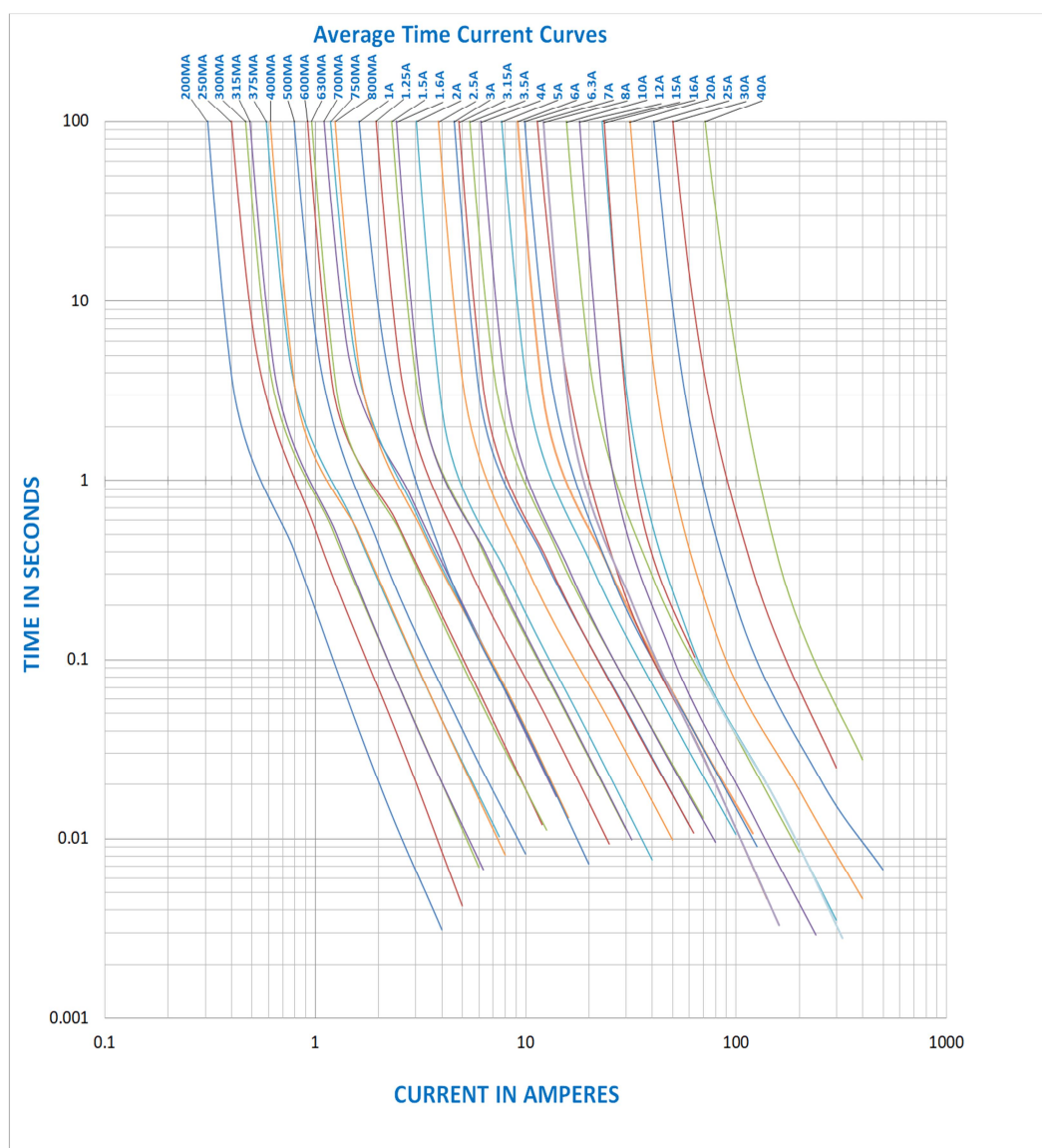
保险丝承受分断能力: 150A@63V 72V 100V 125V 250V 1KA@32V 500A@60V 72V

Breaking Capacity: 150A@63V72V100V125V250V 1KA@32V 500A@60V72V

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

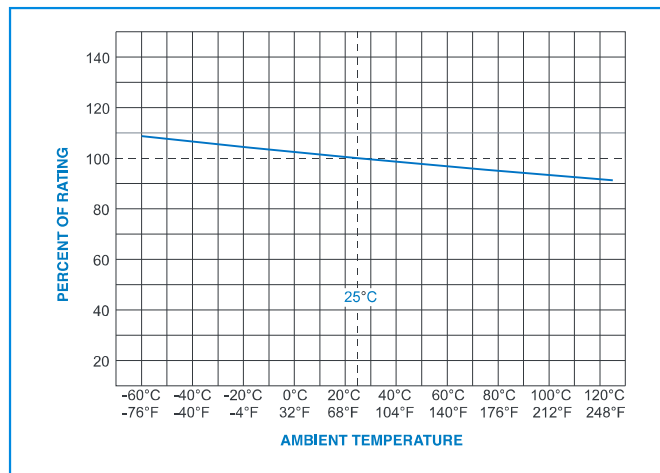


7. 环境特性 / Environmental Characteristic

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

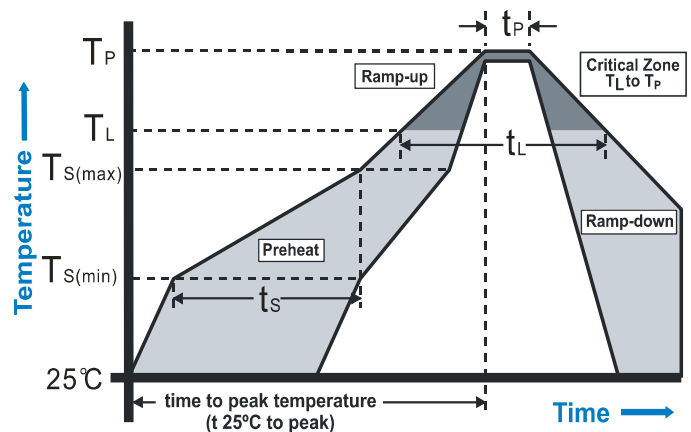
A. 波峰/回流焊参数 / Wave / Reflow Soldering Parameters:

锡膏工艺 / Solder paste process.

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

焊接时间 / Solder Dwell Time: 5 seconds max

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



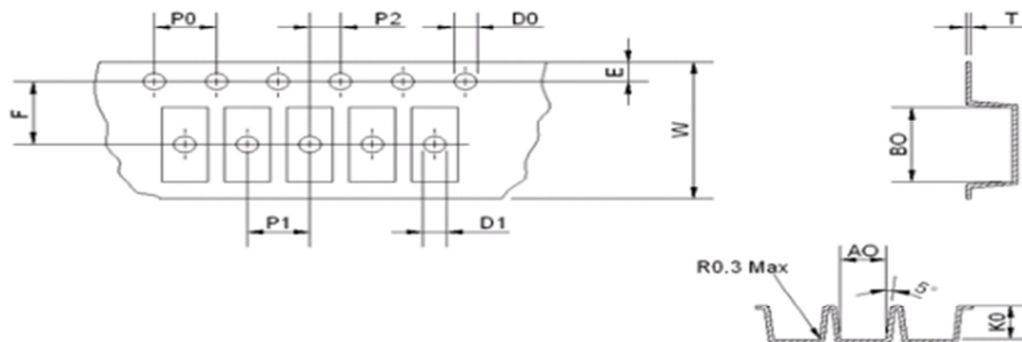
B. 手工焊参数 / Hand-Solder Parameters:

烙铁温度 / Solder Iron Temperature: $300 \pm 5^{\circ}\text{C}$

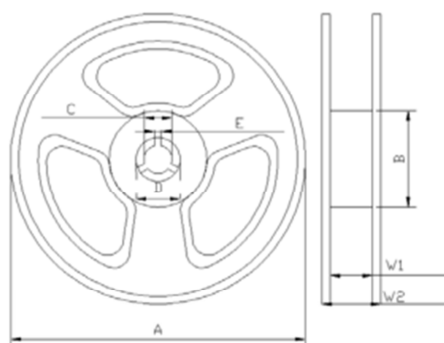
焊接时间 / Heating Time: 1~2 s Max

9. 包装 / Packaging

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

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

E340427

Ditangling Industrial Park Datang Village Dalingshan Town

Dongguan, Guangdong 523800 CHINA

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