

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:

R1032F (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: R1032F 系列 1032/1025 快断型

Product Type: R1032F Series 1032/1025 Fast-Actin

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 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(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	REACH
R1032F.0200	200mA	250V/125V ACDC 72V/100V DC 63V60V/32V DC	1KA@32V 500A@72V60V 150A@63V72V100V 150A@125V250V	2.550	0.08	●	●	○	○	●
R1032F.0250	250mA			1.630	0.218	●	●	○	○	●
R1032F.0300	300mA			1.102	0.387	●	●	○	○	●
R1032F.0315	315mA			1.040	0.367	●	●	○	○	●
R1032F.0375	375mA			0.621	0.631	●	●	○	○	●
R1032F.0400	400mA			0.600	0.650	●	●	○	○	●
R1032F.0500	500mA			0.551	1.01	●	●	○	○	●
R1032F.0600	600mA			0.360	2.01	●	●	○	○	●
R1032F.0630	630mA			0.351	2.02	●	●	○	○	●
R1032F.0700	700mA			0.190	3.73	●	●	○	○	●
R1032F.0750	750mA			0.186	3.83	●	●	○	○	●
R1032F.0800	800mA			0.180	3.91	●	●	○	○	●
R1032F.1100	1A			0.177	4.01	●	●	○	○	●
R1032F.1125	1.25A			0.112	7.34	●	●	○	○	●
R1032F.1150	1.5A			0.072	11.92	●	●	○	○	●
R1032F.1160	1.6A			0.071	12.63	●	●	○	○	●
R1032F.1200	2A			0.054	14.40	●	●	○	○	●
R1032F.1250	2.5A			0.041	28.12	●	●	○	○	●
R1032F.1300	3A			0.032	45.3	●	●	○	○	●
R1032F.1315	3.15A			0.031	45.6	●	●	○	○	●
R1032F.1350	3.5A			0.024	63.5	●	●	○	○	●
R1032F.1400	4A			0.022	64.1	●	●	○	○	●
R1032F.1500	5A			0.015	112.0	●	●	○	○	●
R1032F.1600	6A			0.013	145.3	●	●	○	○	●
R1032F.1630	6.3A			0.012	145.6	●	●	○	○	●
R1032F.1700	7A			0.0083	147.2	●	●	○	○	●
R1032F.1800	8A			0.0080	161	●	●	○	○	●
R1032F.2100	10			0.0053	170	●	●	○	○	●
R1032F.2120	12A			0.0045	187	●	●	○	○	●
R1032F.2150	15A			0.0038	337	●	●	○	○	●
R1032F.2160	16A			0.0032	338	●	●	○	○	●
R1032F.2200	20A			0.0024	720	●	●	○	○	●
R1032F.2250	25A			0.0018	1182	●	●	○	○	●
R1032F.2300	30A			0.0014	2050	●	●	○	○	●

R1032F.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

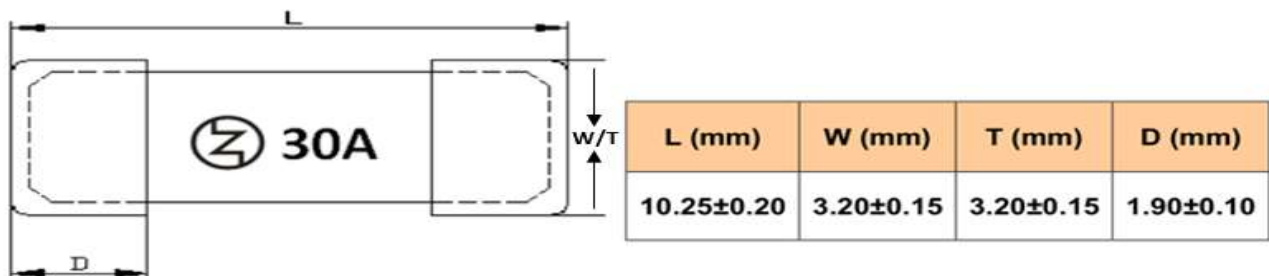
示例 Example:

	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

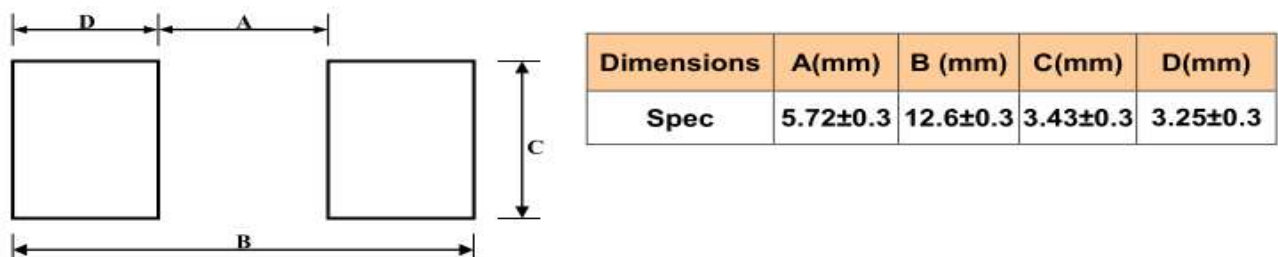
注: 对于标示的大小和位置没有规定 / Note: Size and position of the markings shall not be provided.

3. 结构及尺寸 / Dimensions and Structure

单位: 毫米 / Unit: mm



Recommended pad layout



4. ;

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:

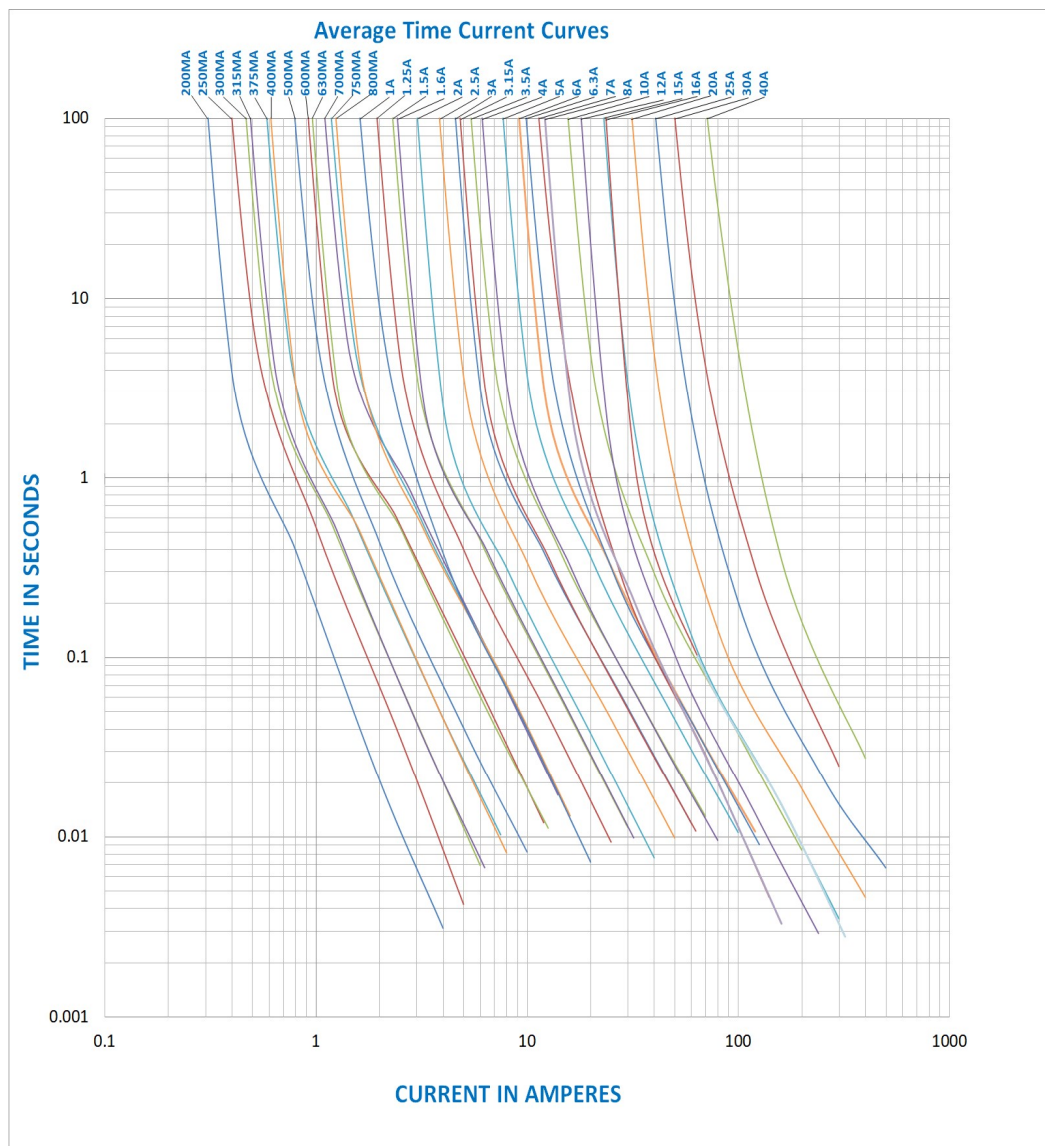
保险丝承受分断能力: 150A@63V72V100V125V250V 1KA@32V 500A@60V72V

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



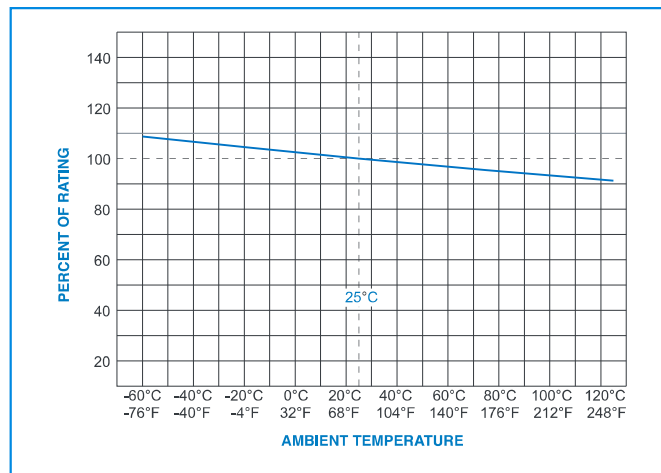
7. 环境特性 / Environmental Characteristic

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

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 Rerating Curve:



8. 建议焊接参数 / Recommended Soldering Parameters

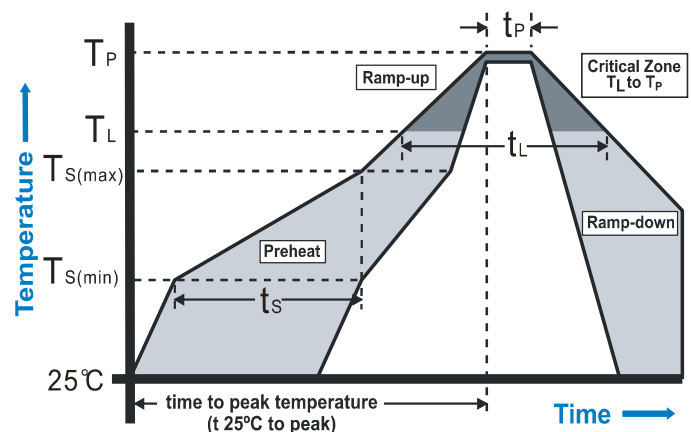
A. 波峰/回流焊参数 / Wave /Reflow Soldering Parameters:

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 (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



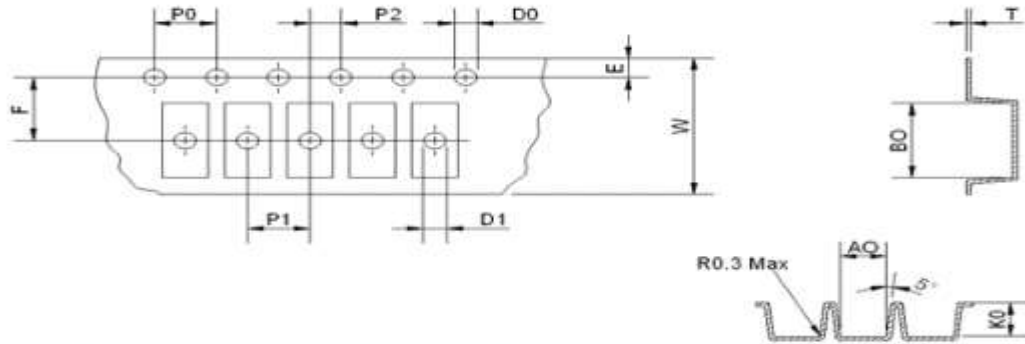
B. 手工焊参数 / Hand-Solder Parameters:

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

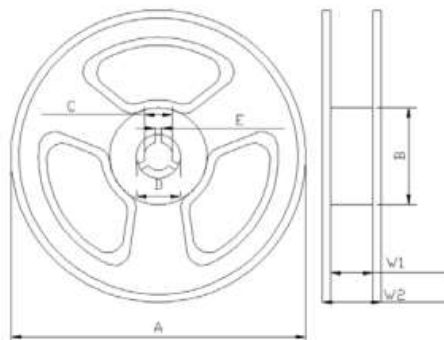
焊接时间 / Heating Time: 1~2 s Max

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

E340427

DONGGUAN REOMAX ELECTRONICS TECHNOLOGY CO LTD

Ditangling Industrial Park Datang Village Dalingshan Town

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Supplemental fuses