

分流贴片电阻-ASR-M-3-1.3F

Alloy Shunt Resistors-ASR-M-3-1.3F



业展电子
YEZHAN ELECTRONICS

特征 Features

精度±1%	Tolerance ±1%
使用温度-65℃~170℃	Operating Temperature range -65℃~170℃
焊接结构	Welding constructure
耐冲击	Ideal for pulse application
电感小于 3 纳亨	Low Inductance < 3nH
符合ROHS 要求	RoHS Compliant
特殊规格可以订做	Customizable
符合AEC-Q200	AEC-Q200 qualified.

应用范围 Applications

变频驱动、伺服驱动系统	Frequency conversion drive, servo drive system
大电流电池管理系统	High current battery management system
汽车电子控制单元、汽车油泵驱动	Automobile electronic control unit, automobile oil pump drive
DC/DC, DC/AC电源模块	DC/DC, DC/AC power modules
自动化控制系统	Automatic control system
工业仪器设备	Industrial instrument and equipment

订购信息 Ordering information

ASR	-M	-3	-1.3	F
Yezhan Type	Element Material	Dimension	Resistance Value(mΩ)	Tolerance
ASR	M: Manganin	3: 2512		F: ±1%

说明 Notice

适用范围 Scope

本承认书适用于深圳市业展电子有限公司 制造之[分流贴片电阻器]。

This specification is available for Alloy Shunt Resistors manufactured by Shenzhen Yezhan Electronics Co., Ltd.

标准试验状态 Standard measuring conditions

温度 5~35℃、相对湿度45~85%给予判定。

Measurement was accepted under the condition of 5~35℃ with a relative Humidity of 45~85%.

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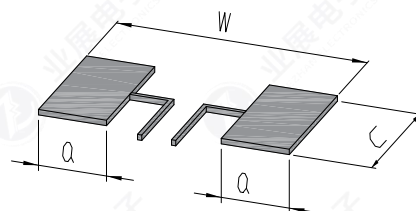
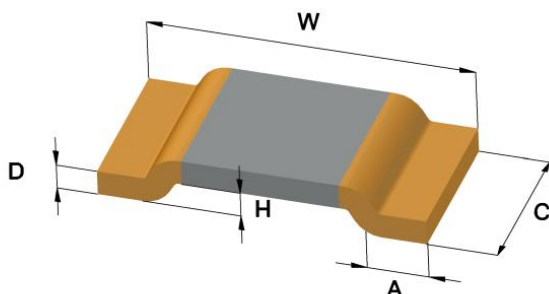


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产品尺寸和PCB板布局

Product dimensions and PCB-layout (Reflow-soldering)

(Unit: mm)



Type	Size	W (mm)	A (mm)	C (mm)	H (mm)
ASR-M-3-1.3F	2512	6.3 ± 0.2	1.2 ± 0.2	3.1 ± 0.3	0.5 ± 0.1

Solder pad type	w	c	a
ASR-M-3-1.3F	7	3.4	1.8

Size	Element Material	Resistance (m Ω)	T ± 0.1 (mm)	D ± 0.1 (mm)	TCR (ppm/ $^{\circ}$ C)	P70 $^{\circ}$ C (W)
2512	M	1.3 ± 0.013	0.75	0.33	± 100	6

TCR (ppm/ $^{\circ}$ C) : Test conditions at 20 $^{\circ}$ C~120 $^{\circ}$ C.

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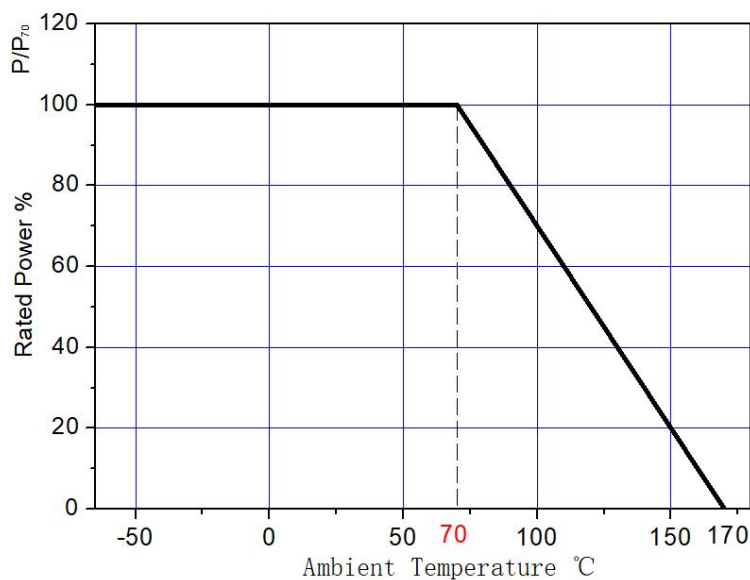
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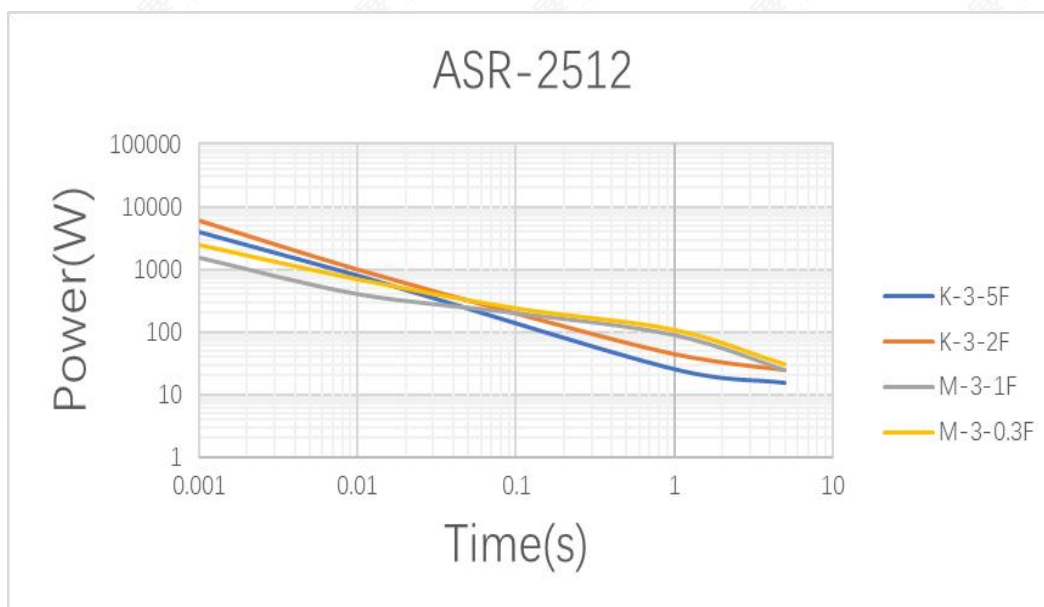
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工作特性 Performance data

降功率曲线 Power Derating



脉冲曲线 Pulse curve



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持久性测试 Endurance test

Items	Additional Requirements	Reference	Limits
Temperature Cycling	1000 Cycles(-55°C to +150°C)	JESD22 Method JA-104	±0.5%
High Temperature Exposure	1000hrs.@T=170°C.Unpowered.	MIL-STD-202 Method 108	±0.5%
Biased Humidity	1000hrs 85°C/85%RH. Note:Specified conditions:10% of operating power.	MIL-STD-202 Method 103	±0.5%
High Temperature Operating Life	1000 hrs.(T=125°C). Rate power was applied to the products intermittently: 90 minutes ON and 30 minutes OFF . Measurement at 24±4 hoursafter test conclusion .	MIL-STD-202 Method 108	±0.5%
Solderability	245°C±5°C,5s±0.5s	J-STD-002C	95% Coverage Minimum
Board Flex	1) PCB board size(H×W×T): 100mm ×40mm ×1.6mm. 2) Press tool: r = 340mm, Width = 20mm. 3) Deformation displacement: 2mm. 4) Duration: 60 (+5) s.	AEC-Q200-005 REV A,	±0.5%
Resistance to Soldering Heat	250°C±5°C, 30s±1s	MIL-STD-202 Method 210	±0.5%
Short Time Overload	5×Rated power for 5 s	MIL-STD-202 Method 301	±0.5%
Mechanical Shock	1) Pulse waveform: Half-Sine pulse. 2) Accelerate peak: 100g. 3) Pulse duration: 6ms. 4) Orientation & Shock time: ±X, ±Y, ±Z; 3 times each orientation, total 18 times	MIL-STD-202H Method 213	±0.5%
ESD	1) Direct Contact (DC): ±6kV; 2) Air Discharge (AD): ±12kV, ±16kV, ±25kV;	AEC-Q200-002 REV-B,	±0.5%
Terminal Strength	1) Press tool: A pointed thruster with a radius of 0.5 mm. 2) Shear force: 17.7N. 3) Duration: 60 (+1) seconds.	AEC-Q200-006 REV A	±0.5%
Flame Retardance	1) Test current: 100%, 115%, 130%, 150% (rated current). 2) Test duration: 1h. The following constitutes a failure: 1) A flame over 3.0 seconds duration; 2) An explosion; 3) A temperature above 350°C sustained for over 10 seconds.	AEC-Q200-001 REV B	> 10s for 350°C

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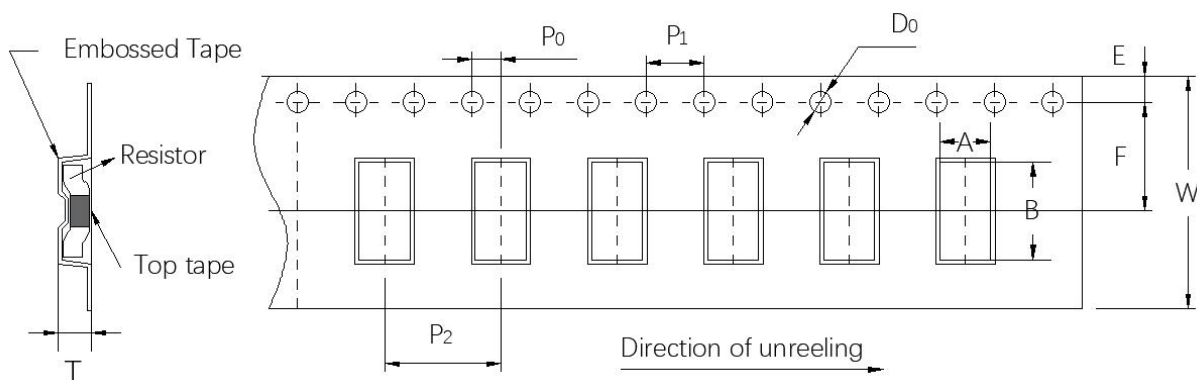
印字标识 Marking

R0013 1%
R0013: 1.3mΩ阻值 Value 1%: ±1%精度 Tolerance

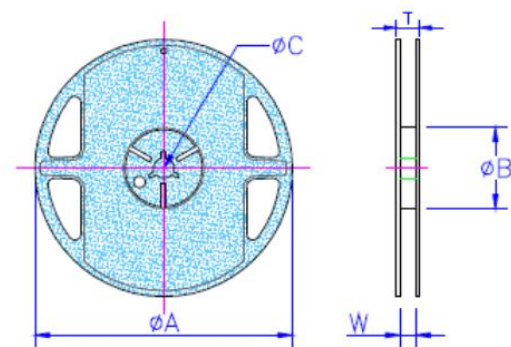
包装 Packaging

Embossed plastic Tape Specifications

(Unit: mm)



Size	A±0.1	B±0.1	W±0.3	E±0.1	F±0.1	P ₀ ±0.1	P ₁ ±0.1	P ₂ ±0.1	D ₀ ±0.1	T±0.15	*Quantity (pcs)
2512	3.5	6.7	12	1.75	5.5	2	4	4	1.50	1.4	3000



Size	2512
φA	178
φB	60
φC	13
W	12.5
T	21

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2025.04.10

受控文件
审核

Checked

版本 Version	日期 Date	修订描述 Description of amendment	拟定 Draft	受控文件 审核 Checked
A1.0	2025-04-10	首版发行	林明月	邓小辉

YZ-WP-RD-458