

分流贴片电阻-ASH-M-3系列

Alloy Shunt- ASH-M-3 Series



业展电子
YEZHAN ELECTRONICS

特征 Features

精度 $\pm 5\%$, $\pm 1\%$, $\pm 0.5\%$	Tolerance $\pm 5\%$, $\pm 1\%$ and $\pm 0.5\%$
使用温度 $-65^{\circ}\text{C}\sim 170^{\circ}\text{C}$	Operating Temperature range $-65^{\circ}\text{C}\sim 170^{\circ}\text{C}$
电子束焊接结构	Electron beam welding
耐冲击	Ideal for pulse application
电感小于 3 纳亨	Low Inductance $< 3\text{nH}$
符合ROHS, REACH, 无卤素要求	HF, REACH, 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	Automobile electronic control unit
汽车油泵驱动	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

ASH	-M	-3	-1	F	-x
Yezhan Type	Resistance Alloy	Dimension	Resistance Value	Tolerance	
ASH	M: Manganin	3: 2512 Unit: in	Unit: m Ω	J: $\pm 5\%$ F: $\pm 1\%$ D: $\pm 0.5\%$	Special

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]。

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

标准试验状态 Standard measuring conditions

温度 $20\pm 2^{\circ}\text{C}$ 、湿度 $65\pm 5\%$ ，但在温度 $5\sim 35^{\circ}\text{C}$ 、湿度 $45\sim 85\%$ 之情况下，仍可给予判定。

Temperature $20\pm 2^{\circ}\text{C}$, Humidity $65\pm 5\%$. Being no doubt about the judgment, measurements can be made within the following Temperature $5\sim 35^{\circ}\text{C}$, Humidity $45\sim 85\%$.

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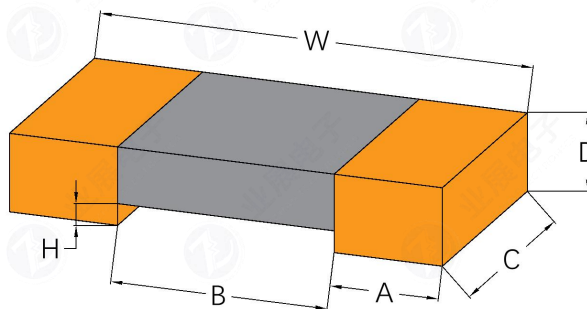
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产品尺寸 Product dimensions

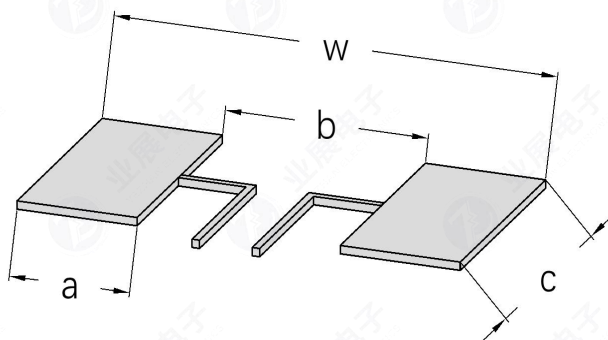
(Unit: mm)



Type	Size (in)	W	A	C	H
ASH-M-3	2512	6.3 ± 0.2	1.2 ± 0.2	3.1 ± 0.3	≥ 0.3

PCB板布局 PCB-layout (Reflow-soldering)

(Unit: mm)



Solder pad type	w	c	a	b
ASH-M-3	7	3.8	1.8	3.4

技术参数 Technical Data

Size (in)	Element material	Resistance (mΩ)	D±0.2 (mm)	*TCR (ppm/°C)	P _{70°C} (W)
2512	Manganin	0.5	1.5	±50	6
		1.0	1.0	±50	6

*TCR (ppm/°C) : Test conditions at -40°C~+150°C.

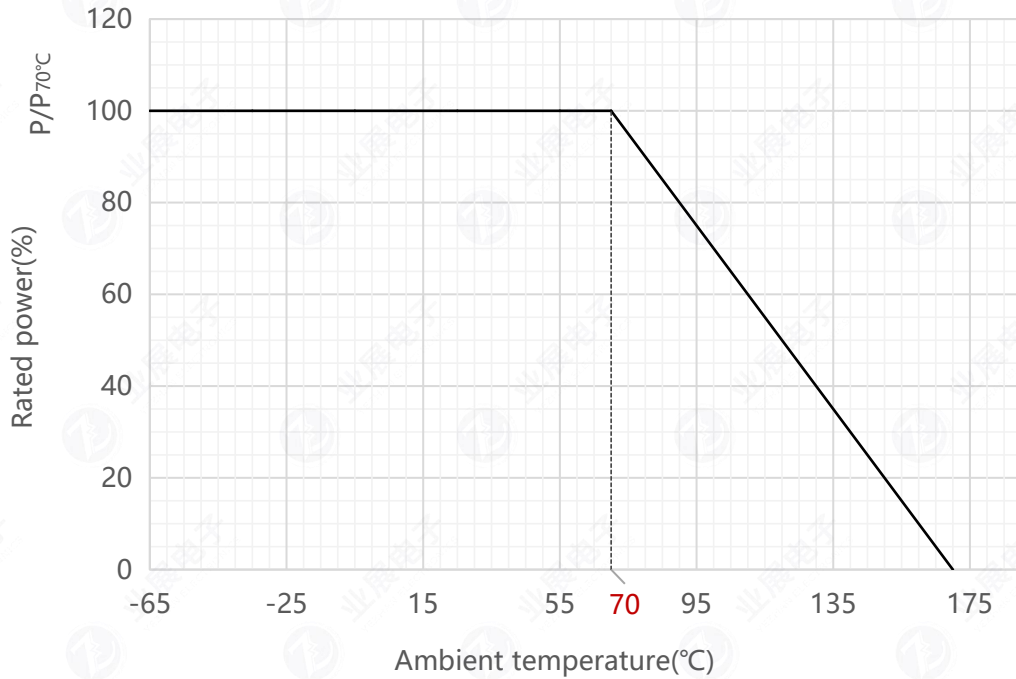
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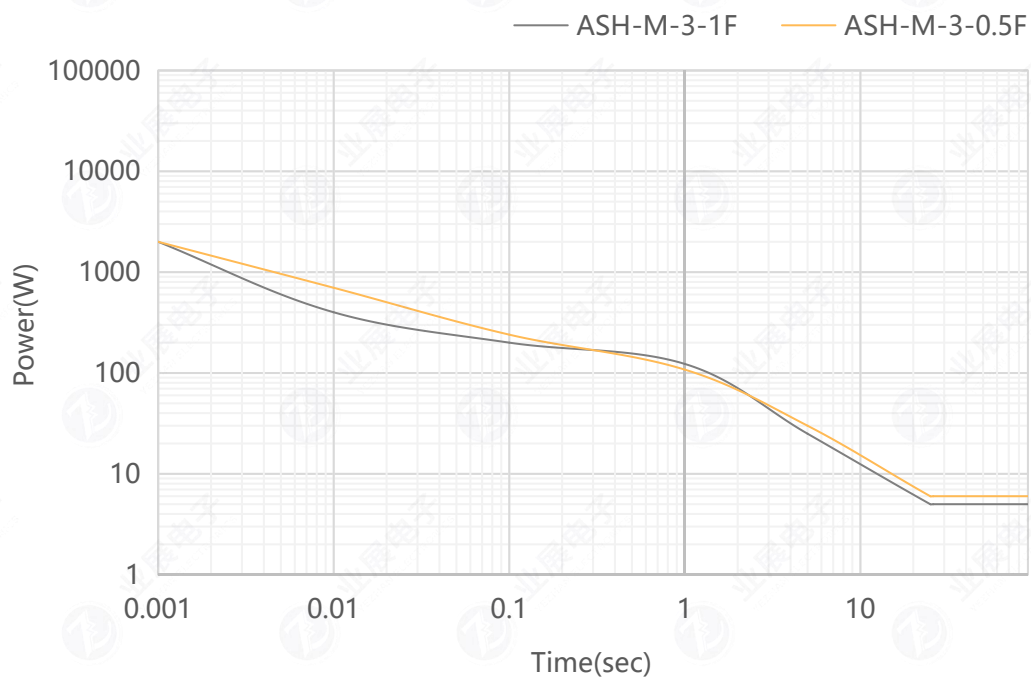


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功率降额曲线 Power derating curve



脉冲功率曲线 Pulse power curve



» 耐久性测试 Endurance Test

Items	Additional Requirements	Reference	Limits
Dimension	Verified according to the specification .	GB/T 5729-1994-4.4.2	As Spec
High Temperature Exposure	1000 hrs. (T=170°C) , unpowered. Measurement at 24±4 hours after test conclusion .	MIL-STD-202 Method 108	±0.5%
Temperature Cycling	1000 Cycles(-55°C to +155°C) , unpowered. Minimum dwell time 15min. at each temperature extreme. maximum transition time 1 min. . Measurement at least 24 hours after test conclusion .	JESD22-A-104	±0.5%
Humidity Bias	1000hrs. (85°C/85%RH) . Note: Specify conditions: 10% of operating power. Measurement at 24±4 hours after test conclusion .	MIL-STD-202 Method 103	±0.5%
High Temperature Operating Life	1000 hrs.(T=125°C). 100% rated power was applied to the products intermittently: 90 minutes ON and 30 minutes OFF . Measurement at 24±4 hours after test conclusion .	MIL-STD-202 Method 108	±0.5%
Resistance to Soldering Heat	250°C±5°C , 30s±5s	MIL-STD-202 Method 210	±0.5%
Solderability	1) Steam ageing for 8 hours (93°C); 2) Weld bath temperature 245°C±5°C, duration 5±0.5S .	J-STD-002	95% Coverage Minimum
Vibration	20 min.(5 g's) , test from 10Hz-2000 Hz, 12 cycles each of 3 orientations .	MIL-STD-202 Method 204	±0.5%
Board Flex Test	Apply an external force once to the circuit board, bend at least Dx = 2mm, duration 60±5 S .	AEC-Q200-005	±0.5%
Terminal Strength (SMD)	Apply an external force once to the side of the test device, the force is 17.7N (1.8kg), duration 60±1S .	AEC-Q200-006	±0.5%
Mechanical Shock	1) Pulse waveform: Half-Sine pulse; 2) Accelerate peak: 100g's; 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%
Resistance to Solvents	Note: Add Aqueous wash chemical - OKEM Clean or equivalent. Do not use banned solvents .	MIL-STD-202 Method 215	There was no missing, faded, smeared, blurred, or shifted (dislodged) with the marks. There was no crack, separation, crazing, swelling, softening, degradation on the samples.
Flame Retardance	1) Test current: 100%, 115%, 130%, 150% (Long-term operating current) . 2) Test duration: 1h .	AEC-Q200-001	The temperature is not higher than 350 ° C for more than 10 seconds, no flame, no explosion.

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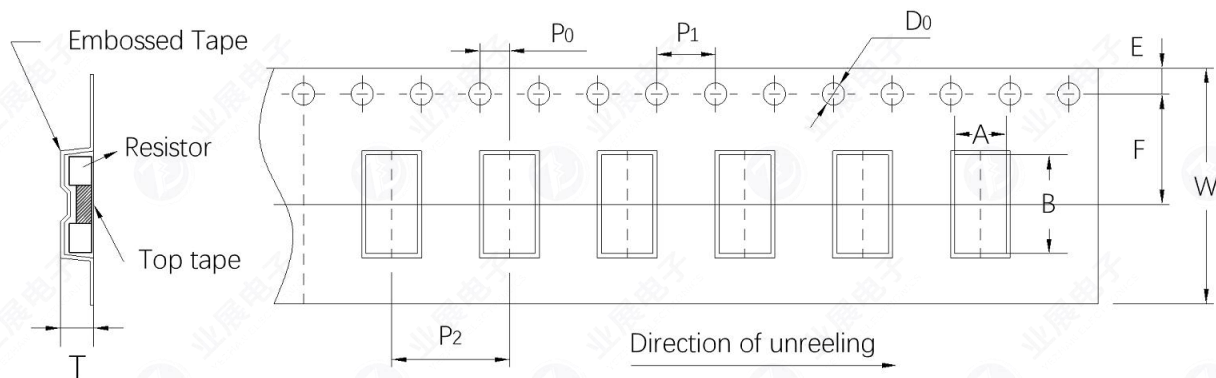
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印字标识 Marking

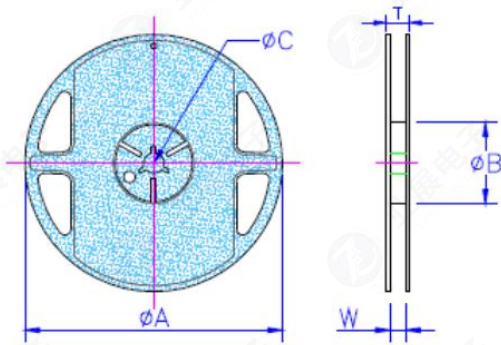
Type	Mark	Explanation
ASH-M-2512	R001 1%	Resistance: 1mΩ Tolerance: ±1%
	0m50 0.5%	Resistance: 0.5mΩ Tolerance: ±0.5%

包装 Packaging

(Unit: mm)



Size-Resistance	A±0.2	B±0.2	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±0.2	Quantity (pcs)
2512-0.5	3.5	6.7	12	1.75	5.5	2	4	8	1.5	1.7	2000
2512-1										1.2	3000



Size (in)	φA	φB	φC	W	T
2512	178	60	13	16.5	21

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2024.03.25

受控文件

版本信息 Version History

Version	Date	Description of amendment	Drafted	Checked
A1.0	8-Nov-2023	First issue	Jiamiao Wang	Ziyang Hu
A1.1	22-Nov-2023	Correction of the thickness (D) dimensions of the product	Jiamiao Wang	Ziyang Hu

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