

分流电阻器-FHRP系列

Alloy Shunt Resistors – FHRP Series



业展电子
YEZHAN ELECTRONICS

特征 Features

精度 $\pm 5\%$ 和 $\pm 2\%$, $\pm 1\%$	Tolerance $\pm 5\%$, $\pm 2\%$ or $\pm 1\%$,
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
高负载稳定性 0.02%	High load stability 0.02%
电感小于 3 纳亨	Low Inductance $< 3\text{nH}$
温度系数低至 $\pm 10\text{ppm}/^{\circ}\text{C}$	TCR down to $\pm 10\text{ppm}/^{\circ}\text{C}$
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

电池化成分容系统	Batterized component volume system
仪器电源及电源测试系统	Instrument power supply and power test system
电池内阻检测设备	Battery internal resistance detection equipment
需要精密采样的电源系统	Power systems that require precision sampling

订购信息 Ordering information

FHRP	-K	-2025	-0.1	F	-L
Yezhan Type FHRP	Element Material K: Karma	Dimension 2025	Resistance Value(m Ω)	Tolerance J: $\pm 5\%$ G: $\pm 2\%$ F: $\pm 1\%$	TCR L: $\pm 10\text{ppm}/^{\circ}\text{C}$ P: $\pm 20\text{ppm}/^{\circ}\text{C}$

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 $20\pm 2^{\circ}\text{C}$ 、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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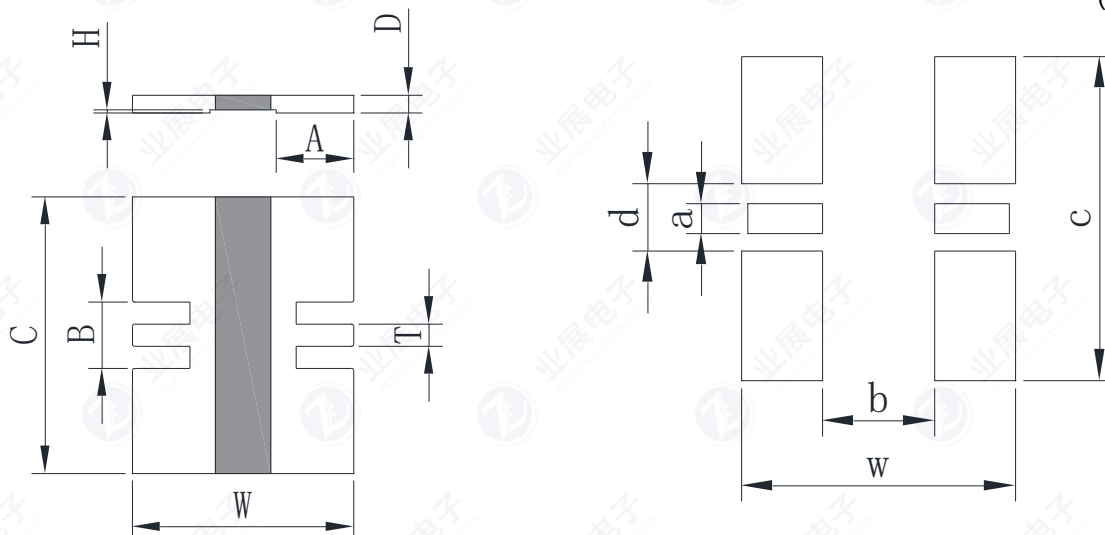


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产品尺寸和PCB板布局

Product Dimensions and pcb-layout (Reflow-soldering)

(Unit: mm)



Type	Size	W (mm)	A (mm)	C (mm)	T (mm)	H (mm)	B (mm)	Tolerance (mΩ)
FHRP-K	2025	20±0.3	7±0.3	25±0.5	2.0±0.1	≥0.3	6.0±0.2	0.1~0.5

Solder pad type	w	c	a	b	d
FHRP-K	22	26	2.4	14	5.4

Size	Element material	Resistance (mΩ)	D±0.1 (mm)	TCR (ppm/°C)	*Load current (A)
2025	K	0.1	3.0	Down to ±10	200
		0.2	1.6		120
		0.25	1.6		120
		0.3	3.0		120
		0.5	3.0		80

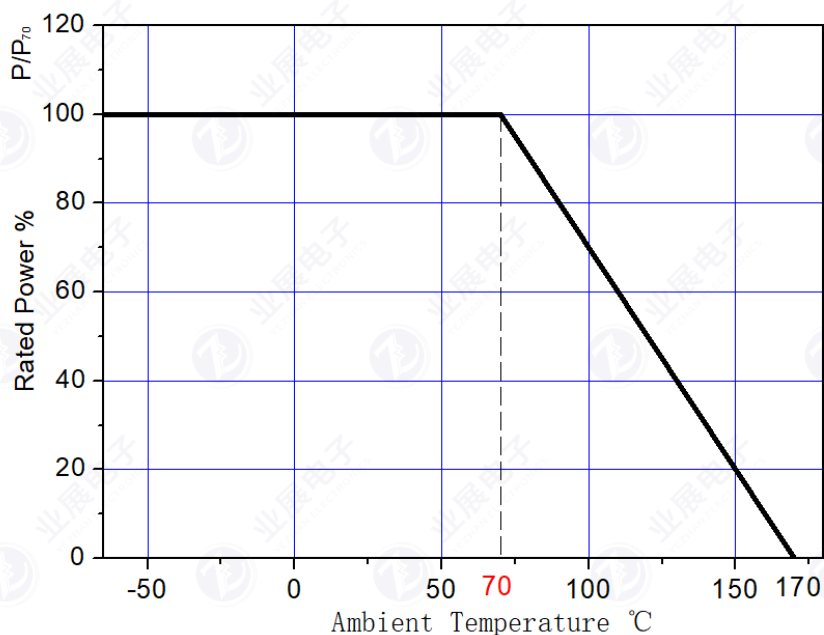
TCR (ppm/°C) : Test conditions at 20°C~120°C.

*负载稳定性: 室温下特定电流加载测试 (铜排夹持或0.3mm厚铜箔连接), 产品阻值变化率≤0.02%

Load stability: At room temperature, Specific current loading test (Copper bar clamp or 0.3mm thick copper foil connection), resistance change rate ≤0.02%

工作特性 Performance Data

降功率曲线 Power Derating



耐久性测试 Endurance Test

Items	Additional Requirements	Reference	Limits
Temperature Cycling	1000 Cycles(-55°C to +125°C)	JESD22 Method JA-104	±0.5%
High Temperature Exposure	100hrs.@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%
Operational Life	Condition D Steady State TA=125°C at rated power.	MIL-STD-202 Method 108	±0.5%
Solderability	245°C±5°C,5s±0.5s	J-STD-002C	95% Coverage Minimum
Resistance to Soldering Heat	260°C±5°C, 10s±1s	MIL-STD-202 Method 210	±0.5%
Short Time Overload	5×Rated power for 5 s	MIL-STD-202 Method 301	±0.5%

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印字标识 Marking



0m10F



业展商标

0m10: 0.1mΩ(Value阻值)

F: ±1%(Tolerance精度)

版本信息 Version History

Version	Date	Description of amendment	Remarks
A1.0	14-Jul-2022	First issue	