

HVR40A 有感厚膜高压电阻器 HVR40A Thick Film High Voltage Resistors



1、硅树脂封装和玻璃介质封装，可在空气、高压油、环氧树脂中使用，电阻误差值提供以下四种选择：±1%、±2%、±5%、±10%

Silicone resin packaging and glass dielectric packaging can be used in air, high-pressure oil, and epoxy resin. The resistance error value provides the following four options: ±1%, ±2%, ±5%, ±10%

2、功率范围，0.25W~5W，具有耐高压、耐脉冲、高稳定性、耐潮湿。引出端采用镀锡铜针。

Power range, 0.25W~5W, with high pressure resistance, pulse resistance, high stability, and moisture resistance. The terminal adopts tinned copper pin.

3、基体采用95%以上的高品质陶瓷(Al_2O_3)，电阻膜层采用贵金属钌、钯等成分浆料，经850°C高温烧结而成，导热好，电性能稳定，引出端采用镀锡铜针。

The substrate is made of more than 95% high-quality ceramics (Al_2O_3), and the resistive film layer is made of precious metal ruthenium, palladium and other composition pastes, which are sintered at 850°C with good thermal conductivity and stable electrical performance. The terminal adopts tinned copper pin.

适用范围 scope of application

有高压和脉冲、浪涌的电路中都适用，使用场合相当广泛，如高压电力设备、高压电源、静电设备、喷涂设备、医疗CT&X光机、高压阻容器、真空设备、分压电路、高压测试设备、高压仪器仪表等。

It is suitable for circuits with high voltage, pulse and surge, and is widely used, such as high-voltage power equipment, high-voltage power supply, electrostatic equipment, spraying equipment, medical CT&X-ray machine, high-voltage resistance container, vacuum equipment, voltage divider circuit, high-voltage test equipment, high-voltage instruments and meters.

性能指标 Performance Parameters

测试项目 Test items	测试方法 Test Methods	性能指标 Performance
过负荷特性 Overload Characteristics	5倍额定功率，但不超过1.5倍最大持续工作电压，连续5秒 5 times the rated power, but not more than 1.5 times the maximum continuous working voltage. 5 seconds continuously	$\Delta R \leq \pm(0.2\%R + 0.1\Omega)$
工作环境温度 working ambient temperature	-55°C~225°C	
介质耐压 Pressure resistance of medium	1000VDC, 60秒钟 1000VDC, 60 seconds	
负载稳定性 load stability	1000小时额定功率(室温) 1000 hours rated power (room temperature)	$\Delta R \leq \pm(0.5\%R + 0.1\Omega)$
冷热冲击 Hot and cold shock	Mil-Std-202, 方法107, 条件C Mil-Std-202, Method 107, Condition C	$\Delta R \leq \pm(0.2\%R + 0.1\Omega)$
防潮能力 Moisture-proof ability	Mil-Std-202, 方法106 Mil-Std-202, Method 106	$\Delta R \leq \pm(0.4\%R + 0.1\Omega)$
绝缘电阻 Insulation resistance	>10000M	

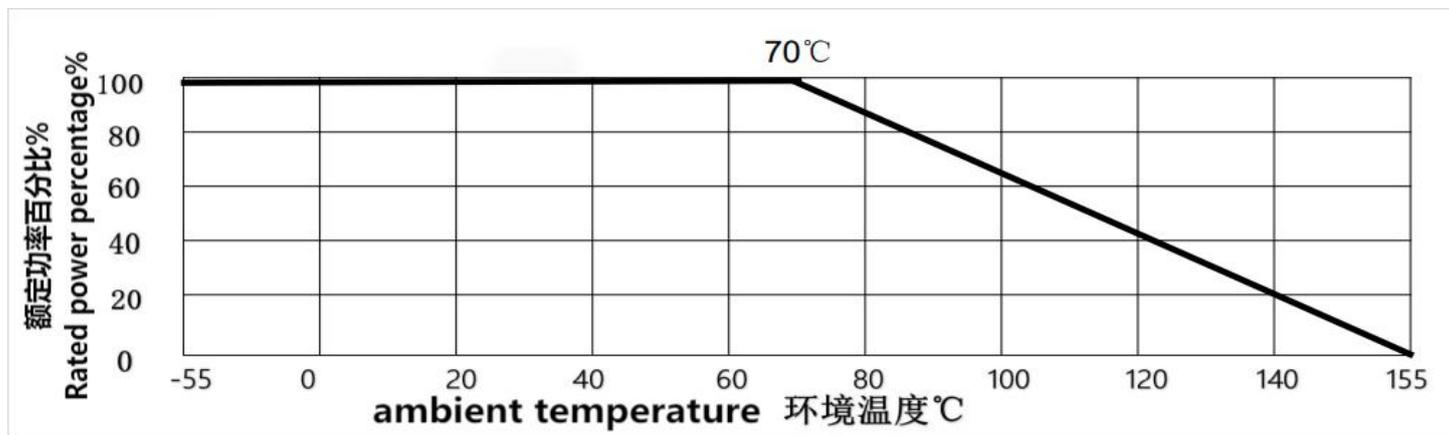
HVR40A



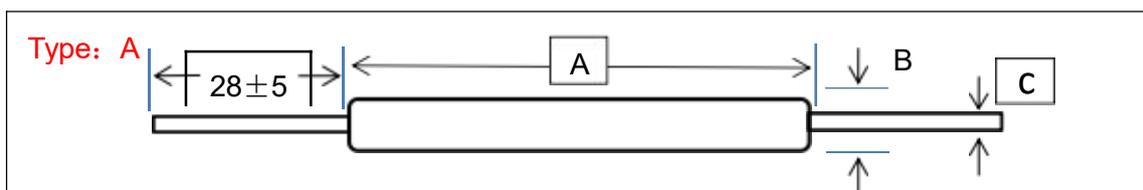
圆柱形 厚膜 有感 高压电阻器 Cylindrical Thick Film Inductive High Voltage Resistor

额定功率或电压/温度变化相关曲线

Rated Power or Voltage Temperature Variation Correlation Curve



规格参数 Specifications



型号 model	功率 Power 25°C (W)	功率 Power 125°C (W)	最大工作电压 Maximum working voltage (kV)	脉冲电压 Pulse voltage (KV) 1.2/50uS	可选精度范围 Optional accuracy range[%]	尺寸dimensions(mm)		
						A±2	B±1	C±0.05
HVR40A								
1/4W	0.25	0.15	1.0	1.5	F: ±1% G: ±2% J: ±5%	6.0	2.5	0.5
1/2W	0.5	0.3	1.5	2.0		9.0	3.0	0.55
1W	1.0	0.6	2.0	3.0		12	4.0	0.7
2W	2.0	1.2	2.5	4.0		15	5.0	0.7
3W	3.0	1.8	3.0	4.5		17	6.0	0.7
5W	5.0	3	5.0	8.0		24	8.0	0.8

- 各种尺寸、规格、电阻值可定制。 Various sizes, specifications, resistance values can be customized.
- 额定功率将受到工作电压的影响。 The rated power will be affected by the working voltage.
- 温度系数 ±200PPM。 Temperature coefficient ± 200PPM

颜色 colour	ROHS 检测报告 ROHS testing report	使用范围 Scope of use
大红袍 Red	无 No	空气中 in air
黑色硅树脂 Black silicone resin	有 Yes	空气、油、灌封中 Air, oil, and Potting

HVR40A



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订购信息 Ordering Information

选型示例: HVR40AK-2W100MJ(HVR40, 引线, 黑色, 尺寸 $\phi 5*15\text{mm}$, $\pm 200\text{ppm}/^\circ\text{C}$, $100\text{M}\Omega$, $\pm 5\%$)

Selection example: HVR40AK-2W100MJ (HVR40, lead,black size $\phi 5*15\text{mm}$, $\pm 200\text{ppm}/^\circ\text{C}$, $100\text{M}\Omega$, $\pm 5\%$)

HVR40	A	K	2W	100M	J
系列型号 Series model	A=引线 lead wire	封装 package K=黑色 K=black H=红色 H=Red	功率 Power 2W=2Watt	阻值 Resistance 10K2=10.2K Ω 1M=1M Ω 1G5=1.5G Ω	精度 Accuracy F: $\pm 1\%$ G: $\pm 2\%$ J: $\pm 5\%$