

Cylindrical Thick Film Inductive High Voltage Resistor

HVR40A Thick Film High Voltage Resistors



1, Silicone resin encapsulation and glass dielectric encapsulation, can be used in air, high pressure oil, epoxy resin, the resistance error value provides the following four options: $\pm 1\%$ 、 $\pm 2\%$ 、 $\pm 5\%$ 、 $\pm 10\%$.

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

3, 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 $850^\circ C$, with good thermal conductivity and stable electrical performance. The terminal adopts tinned copper pin.

Applicable Scope

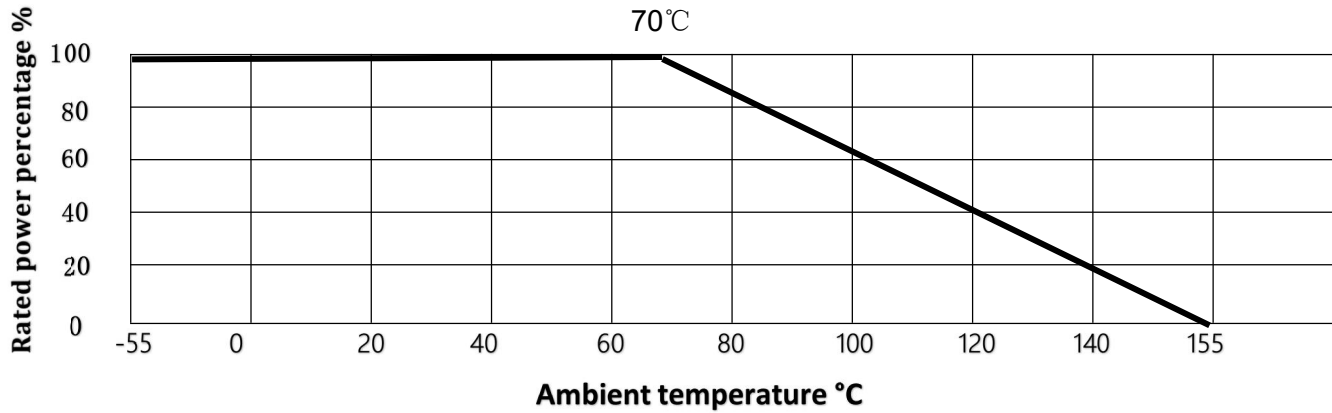
It is suitable for circuits with high voltage, pulse and surge, and is widely used, such as high-voltage power equipment, high-voltage power supply, electrostatic equipment, spraying equipment, medical CT&X-ray machine, high-voltage resistance container, vacuum equipment, voltage divider circuit, high-voltage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

Performance Parameters

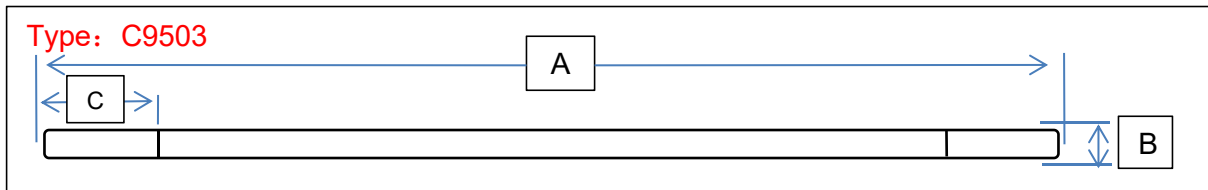
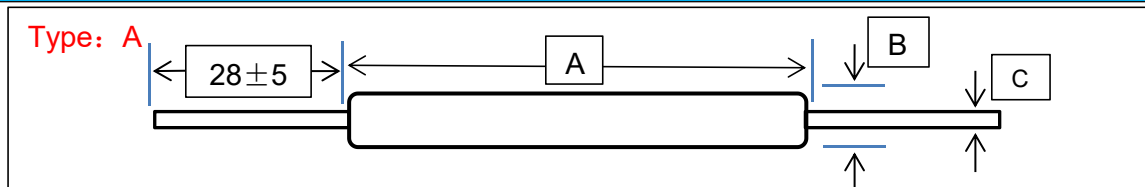
Test items	Test Methods	Performance
Overload Characteristics	5 times the rated power, but not more than 1.5 times the maximum continuous working voltage. 5 seconds continuously	$\Delta R \leq \pm(0.2\%R+0.1\Omega)$
working ambient temperature	$-55^\circ C \sim 225^\circ C$	-
Pressure resistance of medium	1000VDC, 60 seconds	-
load stability	1000 hours rated power (room temperature)	$\Delta R \leq \pm(0.5\%R+0.1\Omega)$
Hot and cold shock	Mil-Std-202, Method 107, Condition C	$\Delta R \leq \pm(0.2\%R+0.1\Omega)$
Moisture-proof ability	Mil-Std-202, Method 106	$\Delta R \leq \pm(0.4\%R+0.1\Omega)$
Insulation resistance	> 10000M	

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Rated Power or Voltage Temperature Variation Correlation Curve



Specifications



Model Number HVR40	power 25°C (W)	power 125°C (W)	Maximum working voltage[KV]	Pulse Voltage [KV] 1.2/50uS	Optional accuracy range[%]	Dimension (mm)		
						A±2	B±1	C±0.05
0602	0.25	0.075	1.0	1.5	F: ±1% G: ±2% J: ±5% K: ±10%	6.0	2.5	0.5
0903	0.5	0.15	1.5	2.0		9.0	3.0	0.55
2903	1.5	0.45	6.0	10		29	3.0	0.75
C9503	5.0	1.5	20	40		95	2.5	8.0
1204	1.0	0.3	2.0	3.0		12	4.0	0.7
1505	2.0	0.6	2.5	4.0		15	5.0	0.7
2205	2.5	0.75	3.5	5.0		22	5.0	0.8
2505	3.0	0.9	5.5	9.0		25	5.0	0.8
2905	3.5	1.05	6.0	10		29	5.0	0.8
3905	5.0	1.5	8.0	12		39	5.0	0.8
4205	5.5	1.65	11	15		42	5.0	0.8
4805	6.0	1.8	13	28		48	5.0	0.8
1706	3.0	0.9	3.0	4.5		17	6.0	0.7
2408	5.0	1.5	5.0	8.0		24	8.0	0.8

1. Various sizes, specifications, resistance values can be customized.
2. The rated power will be affected by the working voltage.

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Ordering Information

Selection example: HVR40AH4205K200MJ(HVR40, lead, size 42X5, $\pm 100\text{ppm}/^\circ\text{C}$, $200\text{M}\Omega$, $\pm 5\%$)

HVR40	A	K	4205	K	100M	J
Series model HVR40 HVR82 HVR80	A=lead B=Screw + Nut C=Nut + Nut D=Screw + Screw	Encapsulation K=Black L=Green H=Red	Dimensions (length x diameter) 4205=42x5 2408=24x8	Temperature Coefficient J= $\pm 200\text{ppm}$ K= $\pm 100\text{ppm}$ L= $\pm 50\text{ppm}$ M= $\pm 25\text{ppm}$	Resistance 10K2=10.2K Ω 1M=1M Ω 1G5=1.5G Ω	Resistance Tolerance: D: $\pm 0.5\%$ F: $\pm 1\%$ G: $\pm 2\%$ J: $\pm 5\%$ K: $\pm 10\%$