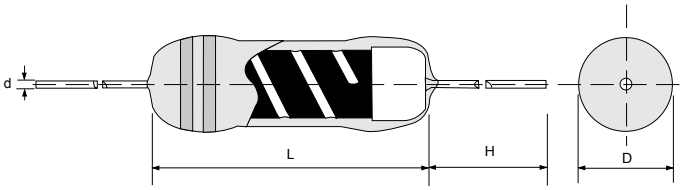
HVR - High Voltage Resistor (High Power)

Quality • Reliability
Cost-Down via Technology



Features

Special conductive film withstands high voltage far over the maximum working voltage of general-purpose resistors. Suitable for high voltage application, such as TV, high voltage transformer circuit, high voltage detection, etc.

DIMENSIONS

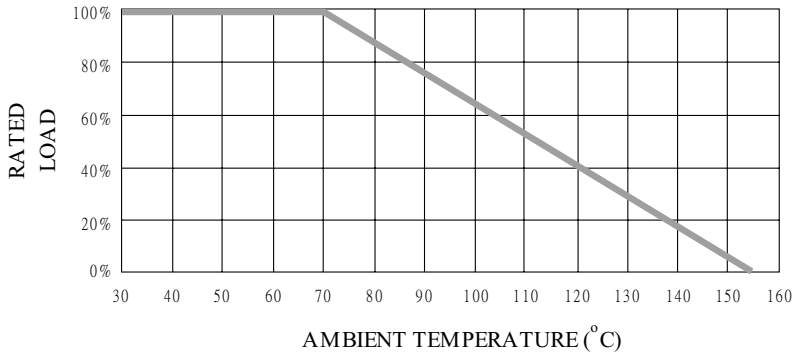
Type	Body Length (L, mm)	Body Diameter (D, mm)	Lead Wire Length (H, mm)	Lead Wire Diameter (d, mm)	Net Weight Per 1000 Pcs
HVR1000	66.5 ± 1.5	8 ± 0.5	39 ± 3.0	0.8 ± 0.03	8200 Grams
HVR1500	66.5 ± 1.5	8 ± 0.5	39 ± 3.0	0.8 ± 0.03	8200 Grams

GENERAL SPECIFICATIONS

Type	Power Rating (at 70°C)	Max. Working Voltage	Max. Overload Voltage	Min. Resistance	Max. Resistance	Resistance Tolerance	Standard Resistance Values
HVR1000	10W	35KV DC	50KV DC	100KΩ	100MΩ	± 5%	E-24
						± 1%	E-96
HVR1500	15W	35KV DC	50KV DC	100KΩ	100MΩ	± 5%	E-24
						± 1%	E-96

Other sizes and values available on request.

POWER DERATING CURVE



ORDERING INFORMATION

Type	Tolerance	Temperature Coefficient	Resistance Value	Packaging	Special Request (Optional)
HVR1000 HVR1500	J (5%) F (1%)	TK800	100K	B	LV (Low value)

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TECHNICAL SUMMARY

Characteristics	Limits
Dielectric Withstanding Voltage, VAC or DC	1000
Temperature Coefficient, PPM / °C	±800
Operating Temperature Range, °C	-55 ~ +155
Insulation Resistance, MΩ	$>10^4$
Voltage Coefficient, PPM / V	<25

PERFORMANCE SPECIFICATIONS

Test Characteristics	Test Conditions	Limits
Short Time Over Load	**IEC 60115-1 4.13** 5 seconds 2.5x rated voltage (not over max. overload voltage)	± 1%
Load Life In Humidity	**IEC 60115-1 4.24** 56 days at 40°C and 93% relative humidity	± 5%
Load Life 1,000 hours	**IEC 60115-1 4.25.1** Rated load 1.5 hours ON, 0.5 hours OFF, at 70°C	± 5%
Resistance To Soldering Heat	**IEC 60115-1 4.18** 10 seconds at 260°C solder bath temperature	± 1%
Solderability	**MIL-STD-202 Method 208** Solder area covered after 230±5°C/5±0.5 seconds w/ flux applied	95% Min.
Vibration	**MIL-STD-202 Method 204** Six hours in each parallel and axial direction w/ a simple harmonic motion having an amplitude of 1.52mm and 10 to 20,000 Hz.	± 1%
Terminal Endurance	**IEC 60115-1 4.25.3** 1000 hours at 155°C without load	± 1%
Thermal Shock	**IEC 60115-1 4.19** -55°C 30minutes, +155°C 30minutes, 5 cycles	± 1%
Surge Test	**Surge voltage = $\sqrt{(100 \times P \times R)}$ DC** P is power rating, R is resistance value, surge voltage is not more than 80KV Surge duration = 50ns Period = 1 sec Number of surges = 5000	5%