

Advantages

Our patented Micropen® precision printing technology provides superior precision, thick-film resistors. Ohmcraft's Micropenned resistors produce superior electrical characteristics including:

- **Ultra High Stability**
- **Very Low Noise**
- **TCR to 50 ppm/°C**
- **Voltage Ratings to 50kV**
- **Tolerances to 0.1%**
- **VCR to 0.1 ppm/V**
- **Non-Inductive**
- **Resistance values to 10 Gigohms**
- **Custom Configurations**

Electrical Specifications

Case Size	Ratings Voltage / Wattage	TCR (±ppm/°C)	Tolerance			
			0.10%	0.25%	0.50%	1%, 2%, 5%, 10%, 20%
05	5kV 1W	50, 100	500K—100M	500K—100M	500K—500M	500K—500M
10	15kV 2W	50, 100	500K—100M	500K—500M	500K—2G	500K—2G
18	15kV 3.6W	50, 100	500K—100M	500K—500M	500K—2G	500K—2G
25	20kV 5W	50, 100	500K—100M	500K—500M	500K—4G	500K—4G
38	30kV 7.5W	50, 100	500K—100M	500K—500M	500K—6G	500K—6G
50	50kV 10W	50, 100	500K—100M	500K—500M	500K—10G	500K—10G

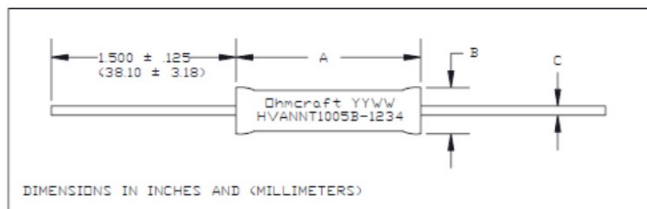
The continuous maximum applied voltage cannot exceed the maximum power rating and is ohmic value dependent. Value range is case size dependent. For custom sizes and configurations, consult factory.

How to Order

HVA	+	G	+		+		+		+	1	
Type		Lead Style		Case Size		TCR Rating		Total R Value		Tolerance	Coating
Precision High Voltage Axial Resistor		G Solderable Gold/Nickel Plated Copper RoHS		05 10 18 25 38 50		H ±50ppm/°C K ±100ppm/°C		Resistance value expressed as a four-digit number—where the first three numbers are the significant value, and the fourth number is the number of zeros.		B ±0.1% C ±0.25% D ±0.5% F ±1% G ±2% J ±5% K ±10% L ±20%	1 High Temperature Conformal Silicone



Resistor Dimensions



Case Size	Length A	Diameter B	Lead Diameter C	Units
05	0.562 ±.030	0.180 ±.015	.025 ±.002	inches
	14.27 ±.76	4.57 ±.38	.64 ±.05	mm
10	1.500 ±.030	0.180 ±.015	.025 ±.002	inches
	38.10 ±.76	4.57 ±.38	.64 ±.05	mm
18	1.500 ±.030	0.310 ±.015	.040 ±.002	inches
	38.10 ±.76	7.87 ±.38	1.02 ±.05	mm
25	2.125 ±.030	0.310 ±.015	.040 ±.002	inches
	53.98 ±.76	7.87 ±.38	1.02 ±.05	mm
38	3.125 ±.030	0.310 ±.015	.040 ±.002	inches
	79.38 ±.76	7.87 ±.38	1.02 ±.05	mm
50	5.000 ±.030	0.310 ±.015	.040 ±.002	inches
	127.00 ±.76	7.87 ±.38	1.02 ±.05	mm

For custom case sizes, consult factory.

Typical Performance Characteristics

Test	Specification
Short Term Overload/Overvoltage	ΔR 0.5% max.
Thermal Shock	ΔR 0.25% max.
Moisture Resistance	ΔR 0.4% max.
Load Life (1000 Hours)	ΔR 0.5% max.
Insulation Resistance	10,000 Megohms min.

Parameter	Typical
Operating Temperature	-55°C to 225°C
Temperature Coefficient	Measured from 25°C to 75°C
Resistance Value	Values > 10M are measured at 100 VDC For custom test voltages consult factory

Material Construction

Substrate	Alumina
Coating	High Temperature Silicone Conformal
End Caps	Stainless Steel
Leads	Solderable Gold and Nickel Plated Copper

Custom Configurations Available Upon Request

Please consult with our knowledgeable sales staff for help specifying custom parts to meet your needs:

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Power Derating Curve

