

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
- Voltage Ratings to 50kV
- Non-Inductive
- Very Low Noise
- Tolerances to 0.1%
- Resistance values to 50 GΩs
- TCR to 50 ppm/°C
- VCR to 0.1 ppm/V
- Custom Configurations

Electrical Specifications

Case Size Ratings	TCR (±ppm/°C)	Tolerance							
		0.10%	0.25%	0.50%	1%	2%	5%	10%	20%
05	50	100K—100M	100K—100M	100K—1G	100K—1G	100K—1G	100K—1G	100K—1G	100K—1G
1W	100	100K—100M	100K—100M	100K—10G	100K—10G	100K—50G	100K—50G	100K—50G	100K—50G
5kV	200	100K—100M	100K—100M	100K—10G	100K—50G	100K—50G	100K—50G	100K—50G	100K—50G
06	50	100K—100M	100K—100M	100K—1G	100K—1G	100K—1G	100K—1G	100K—1G	100K—1G
1.2W	100	100K—100M	100K—100M	100K—10G	100K—10G	100K—50G	100K—50G	100K—50G	100K—50G
7.5kV	200	100K—100M	100K—100M	100K—10G	100K—50G	100K—50G	100K—50G	100K—50G	100K—50G
07	50	100K—100M	100K—500M	100K—10G	100K—10G	100K—10G	100K—10G	100K—10G	100K—10G
1.5W	100	100K—100M	100K—500M	100K—10G	100K—50G	100K—50G	100K—50G	100K—50G	100K—50G
10kV	200	100K—100M	100K—500M	100K—10G	100K—50G	100K—50G	100K—50G	100K—50G	100K—50G
10	50	100K—100M	100K—500M	100K—10G	100K—10G	100K—10G	100K—10G	100K—10G	100K—10G
2W	100	100K—100M	100K—500M	100K—10G	100K—50G	100K—50G	100K—50G	100K—50G	100K—50G
15kV	200	100K—100M	100K—500M	100K—10G	100K—50G	100K—50G	100K—50G	100K—50G	100K—50G
12	50	100K—100M	100K—500M	100K—10G	100K—10G	100K—10G	100K—10G	100K—10G	100K—10G
2.5W	100	100K—100M	100K—500M	100K—10G	100K—50G	100K—50G	100K—50G	100K—50G	100K—50G
20kV	200	100K—100M	100K—500M	100K—10G	100K—50G	100K—50G	100K—50G	100K—50G	100K—50G
18	50	100K—100M	100K—500M	100K—10G	100K—10G	100K—10G	100K—10G	100K—10G	100K—10G
3.6W	100	100K—100M	100K—500M	100K—10G	100K—50G	100K—50G	100K—50G	100K—50G	100K—50G
15kV	200	100K—100M	100K—500M	100K—10G	100K—50G	100K—50G	100K—50G	100K—50G	100K—50G
24	50	100K—100M	100K—500M	100K—10G	100K—10G	100K—10G	100K—10G	100K—10G	100K—10G
5W	100	100K—100M	100K—500M	100K—10G	100K—50G	100K—50G	100K—50G	100K—50G	100K—50G
20kV	200	100K—100M	100K—500M	100K—10G	100K—50G	100K—50G	100K—50G	100K—50G	100K—50G
30	50	100K—100M	100K—500M	100K—10G	100K—10G	100K—10G	100K—10G	100K—10G	100K—10G
6W	100	100K—100M	100K—500M	100K—10G	100K—50G	100K—50G	100K—50G	100K—50G	100K—50G
25kV	200	100K—100M	100K—500M	100K—10G	100K—50G	100K—50G	100K—50G	100K—50G	100K—50G
36	50	100K—100M	100K—500M	100K—10G	100K—10G	100K—10G	100K—10G	100K—10G	100K—10G
7.5W	100	100K—100M	100K—500M	100K—10G	100K—50G	100K—50G	100K—50G	100K—50G	100K—50G
30kV	200	100K—100M	100K—500M	100K—10G	100K—50G	100K—50G	100K—50G	100K—50G	100K—50G
42	50	100K—100M	100K—500M	100K—10G	100K—10G	100K—10G	100K—10G	100K—10G	100K—10G
8W	100	100K—100M	100K—500M	100K—10G	100K—50G	100K—50G	100K—50G	100K—50G	100K—50G
40kV	200	100K—100M	100K—500M	100K—10G	100K—50G	100K—50G	100K—50G	100K—50G	100K—50G
50	50	100K—100M	100K—500M	100K—10G	100K—10G	100K—10G	100K—10G	100K—10G	100K—10G
10W	100	100K—100M	100K—500M	100K—10G	100K—50G	100K—50G	100K—50G	100K—50G	100K—50G
50kV	200	100K—100M	100K—500M	100K—10G	100K—50G	100K—50G	100K—50G	100K—50G	100K—50G

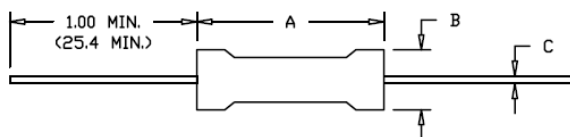
The continuous maximum applied voltage cannot exceed the maximum power rating and is resistance value dependent.
For resistance values below 100 KΩs or for custom case sizes, consult factory.

How to Order

	+		+		+		+		+		+	
HVA		G										1
Type	Lead Style											
Precision High Voltage Axial Resistor	Case Size											
	TCR Rating											
	Total R Value											
	Tolerance											
	Coating											
	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											
	H ±50ppm/°C K ±100ppm/°C L ±200ppm/°C											
	G Solderable Gold/Nickel Plated Copper RoHS											
	05 06 07 10 12 18 24 30 36 42 50											



Resistor Dimensions



For custom case sizes, consult factory.

Case Size	Length A	Diameter B	Lead Diameter C	Units
05	0.560 +.030/-0.060 14.22 +.76/-1.52	0.180 ±.015 4.57 ±.38	.025 ±.002 .64 ±.05	inches mm
06	0.750 +.030/-0.060 19.05 +.76/-1.52	0.180 ±.015 4.57 ±.38	.025 ±.002 .64 ±.05	inches mm
07	1.000 +.030/-0.060 25.40 +.76/-1.52	0.180 ±.015 4.57 ±.38	.025 ±.002 .64 ±.05	inches mm
10	1.500 +.030/-0.060 38.10 +.76/-1.52	0.180 ±.015 4.57 ±.38	.025 ±.002 .64 ±.05	inches mm
12	2.000 +.030/-0.060 50.80 +.76/-1.52	0.180 ±.015 4.57 ±.38	.025 ±.002 .64 ±.05	inches mm
18	1.500 +.030/-0.080 38.10 +.76/-2.03	0.310 ±.015 7.87 ±.38	.040 ±.002 1.02 ±.05	inches mm
24	2.000 +.030/-0.080 50.80 +.76/-2.03	0.310 ±.015 7.87 ±.38	.040 ±.002 1.02 ±.05	inches mm
30	2.500 +.030/-0.080 63.50 +.76/-2.03	0.310 ±.015 7.87 ±.38	.040 ±.002 1.02 ±.05	inches mm
36	3.000 +.030/-0.080 76.20 +.76/-2.03	0.310 ±.015 7.87 ±.38	.040 ±.002 1.02 ±.05	inches mm
42	4.000 +.030/-0.080 101.60 +.76/-2.03	0.310 ±.015 7.87 ±.38	.040 ±.002 1.02 ±.05	inches mm
50	5.000 +.030/-0.080 127.00 +.76/-2.03	0.310 ±.015 7.87 ±.38	.040 ±.002 1.02 ±.05	inches mm

Typical Performance Characteristics

Test	Specification
Short Term Overload/Overvoltage	ΔR 0.5% max.
Thermal Shock	ΔR 0.25% max.
Shock and Vibration	ΔR 0.5% 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:

93 Paper Mill St. E: ohmcraftsales@exxelia.com
Honeoye Falls, NY 14472 P: 585.624.2610

Power Derating Curve

