

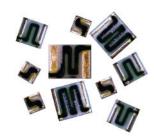




### **Advantages**

Our patented Micropen® precision printing technology provides superior precision, thick-film resistors.

- Very Small Package Sizes
- Resistance Values to 10 GΩ
- Ultra High Stability
- Very Low Noise
- Tolerances to 1%
- TCR to 50 ppm/°C
- Custom Configurations
- Ideal for Small High Gain Preamplifiers



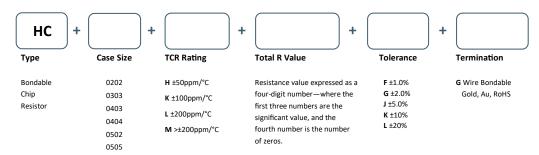
## **Electrical Specifications**

Case Size	TCR	Tolerance				
Ratings	(±ppm/°C)	1%	2%	5%	10%	20%
0202 40mW	50	10K-100M	10K-100M	10K-100M	10K-100M	10K-100M
	100	10K-500M	10K-500M	10K-500M	10K-500M	10K-500M
50V	200	10K-500M	10K-1G	10K-1G	10K-10G	10K-10G
	>200	10K-500M	10K-1G	10K-1G	10K-10G	10K-10G
	50	10K-100M	10K-100M	10K-100M	10K-100M	10K-100M
0303	100	10K-500M	10K-500M	10K-500M	10K-500M	10K-500M
50mW 50V	200	10K-500M	10K-1G	10K-1G	10K-10G	10K-10G
300	>200	10K-500M	10K-1G	10K-1G	10K-10G	10K-10G
	50	10K-100M	10K-100M	10K-100M	10K-100M	10K-100M
0403 55mW	100	10K-500M	10K-500M	10K-500M	10K-500M	10K-500M
100V	200	10K-500M	10K-1G	10K-1G	10K-10G	10K-10G
1007	>200	10K-500M	10K-1G	10K-1G	10K-10G	10K-10G
	50	10K-100M	10K-500M	10K-500M	10K-500M	10K-500M
0404 60mW	100	10K-500M	10K-1G	10K-1G	10K-1G	10K-1G
100V	200	10K-500M	10K-1G	10K-1G	10K-10G	10K-10G
	>200	10K-500M	10K-1G	10K-1G	10K-10G	10K-10G
	50	10K-100M	10K-500M	10K-500M	10K-500M	10K-500M
0502 50mW	100	10K-500M	10K-1G	10K-1G	10K-1G	10K-1G
100V	200	10K-500M	10K-1G	10K-1G	10K-10G	10K-10G
	>200	10K-500M	10K-1G	10K-1G	10K-10G	10K-10G
	50	10K-100M	10K-500M	10K-500M	10K-500M	10K-500M
0505 100mW	100	10K-500M	10K-1G	10K-1G	10K-1G	10K-1G
10011VV	200	10K-500M	10K-1G	10K-1G	10K-10G	10K-10G
	>200	10K-500M	10K-1G	10K-1G	10K-10G	10K-10G

The continuous maximum applied voltage cannot exceed the maximum power rating and is resistance value dependent. Resistance value range is case size dependent.

For custom sizes and resistance values over 10 G $\Omega$ s, contact ohmcraftsales@exxelia.com.

### How to Order







#### **Resistor Dimensions**



Case Size	L (Length)	W (Width)	T (Max. Thickness)	D <sub>T</sub> (Pad Length)	Units
0202	0.02 ±0.005	0.02 ±0.005	0.015	0.005	inches
	0.508 ±0.127	0.508 ±0.127	0.381	0.127	mm
0303	0.03 ±0.005	0.03 ±0.005	0.015	0.005	inches
	0.762 ±0.127	0.762 ±0.127	0.381	0.127	mm
0403	0.045 ±0.005	0.03 ±0.005	0.02	0.01	inches
	1.143 ±0.127	0.762 ±0.127	0.508	0.254	mm
0404	0.040 +0.01/-0.005	0.04 ±0.005	0.02	0.01	inches
	1.016 +0.254/-0.127	1.016 ±0.127	0.508	0.254	mm
0502	0.050 +0.01/-0.005	0.025 ±0.005	0.02	0.01	inches
	1.27 +0.254/-0.127	0.635 ±0.127	0.508	0.254	mm
0505	0.050 +0.01/-0.005	0.05 ±0.005	0.02	0.01	inches
	1.27 +0.254/-0.127	1.27 ±0.127	0.508	0.254	mm

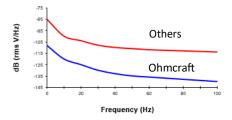
For custom case sizes, contact <a href="mailto:ohmcraftsales@exxelia.com">ohmcraftsales@exxelia.com</a>.

## **Typical Performance Characteristics**

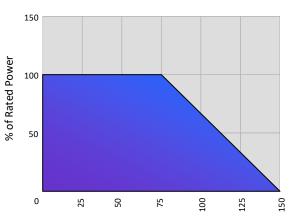
Test	Maximum ΔR	
Short Time Overload	0.1%	
Load Life	0.1%	
Thermal Shock	0.1%	

Parameter	Typical		
Operating Temperature	-55°C to 150°C		
TCR	Measured from 25°C to 75°C		
Resistance Value	Values > 10M are measured at 10 VDC For custom test voltages consult factory		

### Low Noise



# **Power Derating Curve**



Ambient Temperature °C

### **Material Construction**

Resistive ElementThick FilmSubstrate96% AluminaEncapsulationEpoxy

**Termination** Wire bondable gold (Au)

## **Custom Configurations Available Upon Request**

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

E: ohmcraftsales@exxelia.com

P: 585.624.2610 www.ohmcraft.com 93 Paper Mill St.

