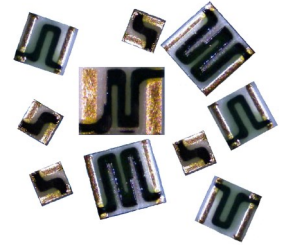


## Advantages

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

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



## Electrical Specifications

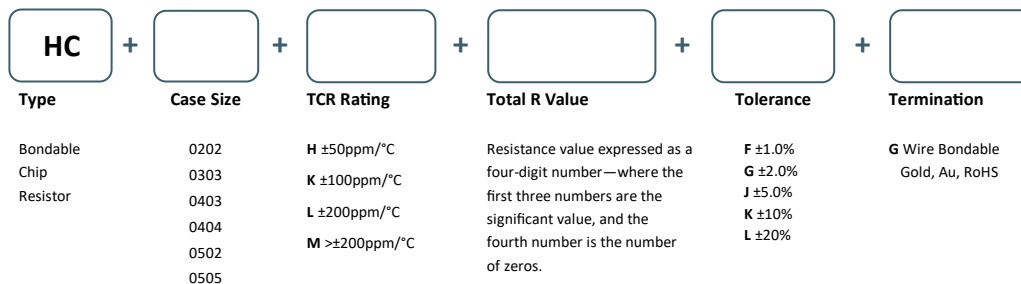
Case Size Ratings	TCR (±ppm/°C)	Tolerance				
		1%	2%	5%	10%	20%
<b>0202</b> 40mW 50V	50	10K-100M	10K-100M	10K-100M	10K-100M	10K-100M
	100	10K-500M	10K-500M	10K-500M	10K-500M	10K-500M
	200	10K-500M	10K-1G	10K-1G	10K-10G	10K-10G
	>200	10K-500M	10K-1G	10K-1G	10K-10G	10K-10G
<b>0303</b> 50mW 50V	50	10K-100M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

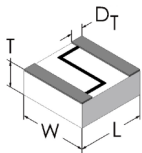
Resistance value range is case size dependent.

For custom sizes and resistance values over 10 GΩ, contact [ohmcraftsales@exxelia.com](mailto: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

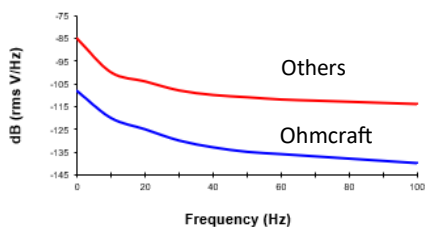
For custom case sizes, contact [ohmcraftsales@exxelia.com](mailto:ohmcraftsales@exxelia.com).

## Typical Performance Characteristics

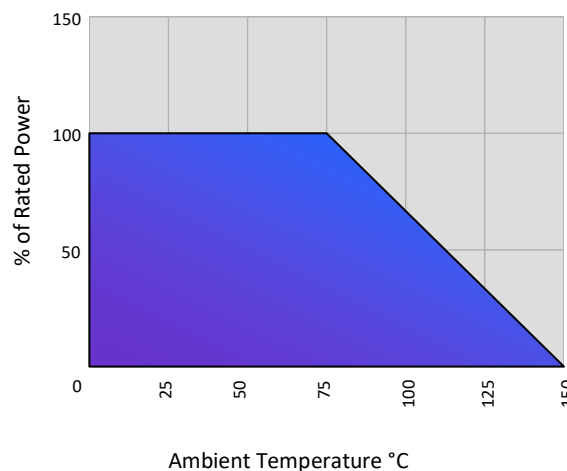
Test	Maximum ΔR
Short Time Overload	0.1%
Load Life	0.1%
Thermal Shock	0.1%

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



## Material Construction

<b>Resistive Element</b>	Thick Film
<b>Substrate</b>	96% Alumina
<b>Encapsulation</b>	Epoxy
<b>Termination</b>	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](mailto:ohmcraftsales@exxelia.com)

P: 585.624.2610

[www.ohmcraft.com](http://www.ohmcraft.com)

93 Paper Mill St.