

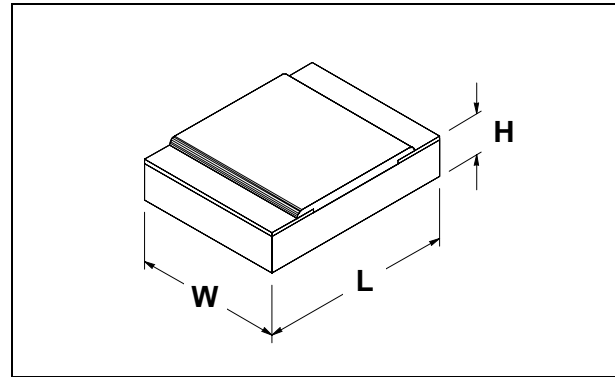
# Model 114

## High Megohm Micro Miniature Chip Resistor



**Model 114** High Megohm Miniature Chip Resistor has thick film gold terminals fired to one side of a ceramic chip at about 900°C. The resistive glass does not contain any organic materials and is applied as a continuous film so exposure in hard vacuum environments will not create any problems due to outgassing.

Thick film gold terminals are suited for ultrasonic ball bonding of gold wire or TC bonding using gold or aluminum wire.



### Applications:

- Hybrid Circuits
- High Impedance Load Resistors
- Low Noise, High Gain Feedback Resistors
- Low Current Biological & Medical Instrumentation
- Photon Infrared Detectors
- Piezoelectric Accelerometers
- Hydrophone Preamplifiers
- Extremely Low Noise Cryogenically Cooled First Stage Detection Circuits
- Electret Microphones
- Telecommunications Line Station Monitoring

Dimensions	L	W	H
Inches	0.055	0.028	0.015
(Tolerance +/-)	0.005	0.003	0.003
Millimeters	1.40	0.71	0.38
(Tolerance +/-)	0.13	0.08	0.08

Tolerance: .....  $1 \times 10^6$  to  $9 \times 10^9 \Omega \pm 5\% \pm 10\% \pm 20\% \pm 30\%$   
 $1 \times 10^{10}$  to  $1 \times 10^{12} \Omega \pm 10\% \pm 20\% \pm 30\%$

Noise figure, 1V bias, noise above thermal (Johnson) noise level: ..... 0.5 dB  
 Operating Voltage Range (Recommended): ..... 0 to 1 Volt  
 Maximum Operating Voltage: ..... to 60 Volts  
 Operating Temperature: ..... -270°C to +200°C  
 (3K to 473K)

Resistors with intermediate values are available. Resistors below  $1 \times 10^6$  as well as resistors beyond  $1 \times 10^{12}$  are also available (special order).

**Note:** Each resistor is measured at 1 VDC @ 25°C. Testing at other voltages is available on special order.



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