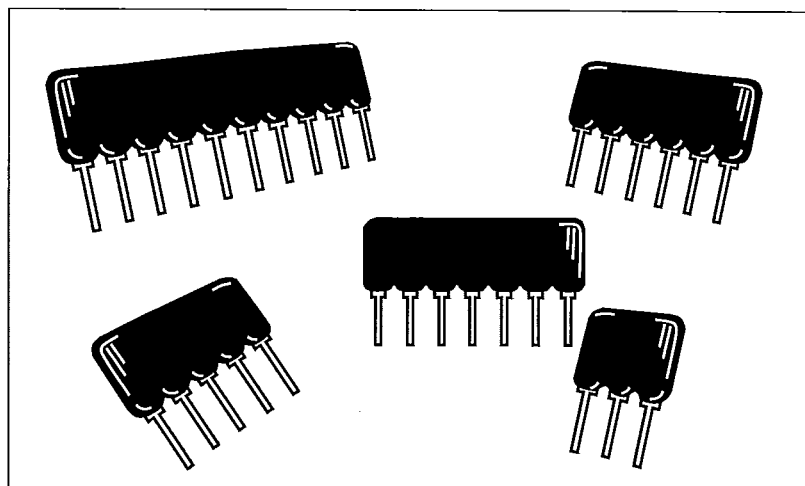


Custom Precision Resistor Networks Single-In-Line (Conformal)

SIP networks available in 3 - 10 pin sizes can obtain important performance parameters in an economical, mass produceable style. SIPs take up the least amount of board space and are the easiest possible configuration to hand insert into printed circuit boards. Standard pin centers are 0.100". Passivation coatings plus a conformal coating of epoxy protect the active element from the outside environment.

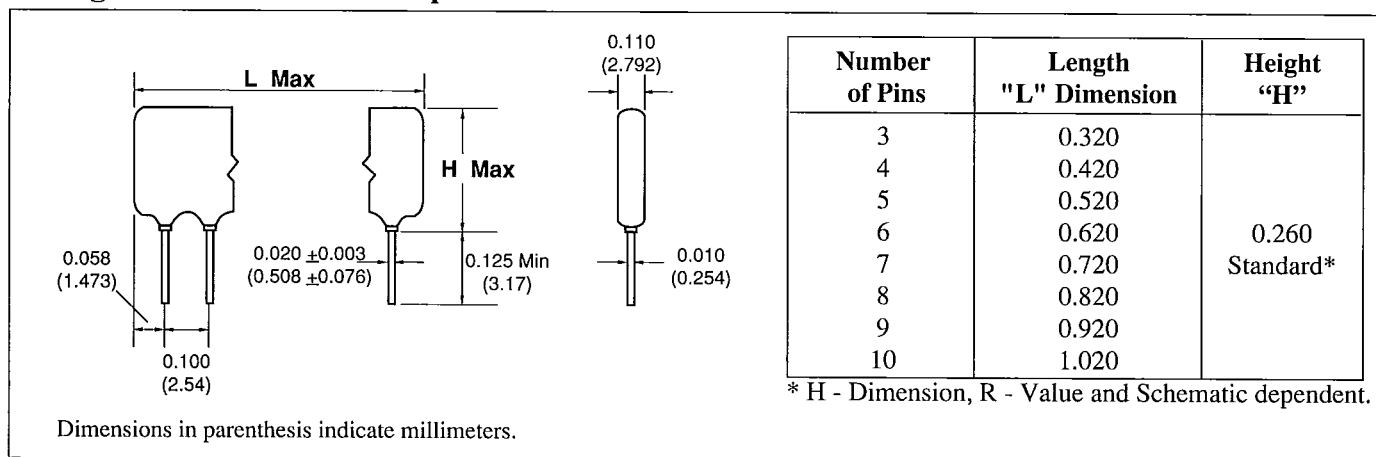
Features

- ▲ Minimal PC board space
- ▲ Standard 0.100 mil centers
- ▲ Exceptional stability over time and temperature
- ▲ Integrated construction improves reliability
- ▲ Conformal coating flame resistant (UL94V-0 rating)



Wirewound Or Metal Film Performance
In A Space Saving Package

▼ Figure 27 Mechanical Specifications



▼ Table 6 Typical Performance

Resistance Range	20 ohms to 10 Megohms
Absolute Tolerance	1.0% to 0.05%
Ratio Tolerance	0.5% to 0.01%
Absolute TCR	±25 ppm/°C to ±10 ppm/°C
TCR Tracking	±2 ppm/°C (typical less 1 ppm/°C equal values)
Temp Range Operating	-55 to +125°C
Temp Range Storage	-55 to +125°C
Low Voltage Coefficient	< 0.0015 ppm/V
Low Noise	< -35dB
Low Thermal EMF	< 0.10 µV/°C
Shelf Stability	< 100 ppm/yr absolute; < 20 ppm/yr ratio Max
Power Rating	100 mW per element typical at +25°C

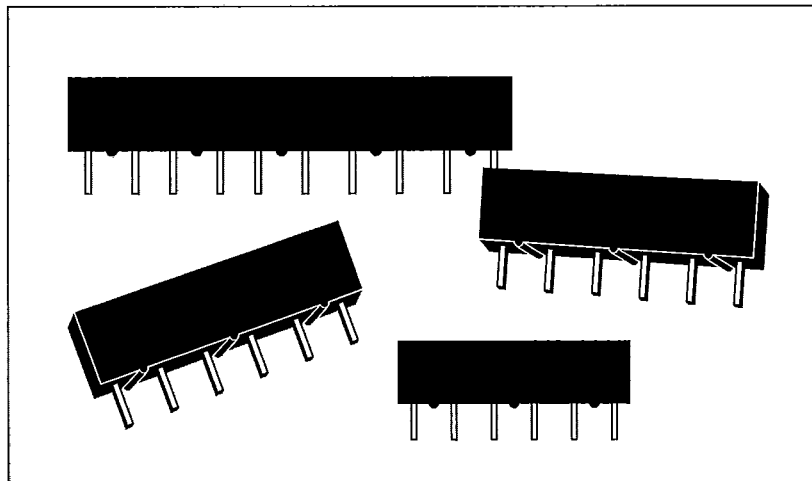
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Custom Precision Resistor Networks Single-In-Line (Molded)



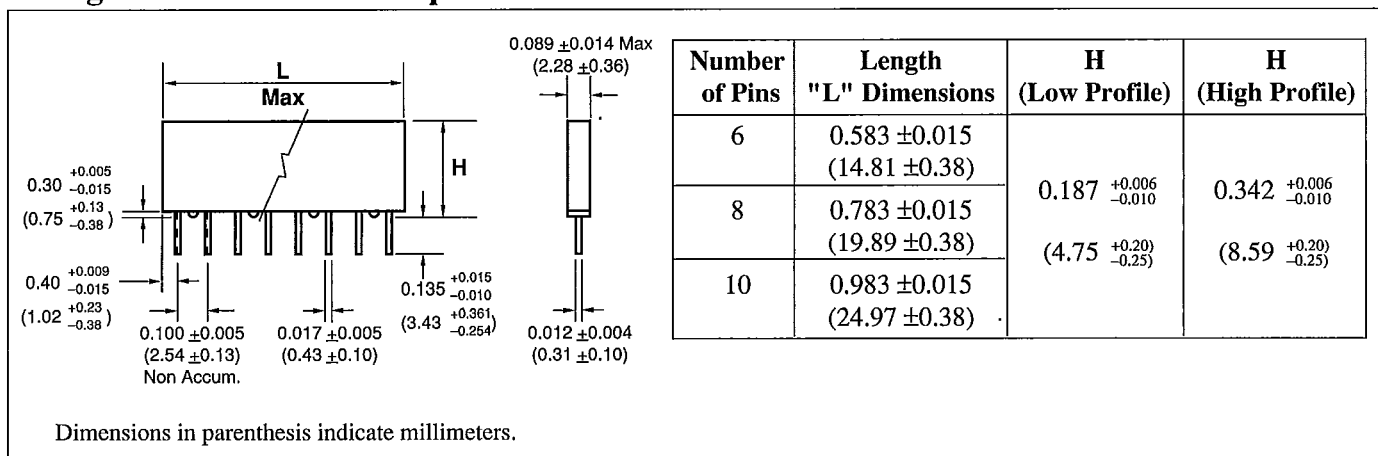
Military grade networks designed to meet MIL-R-83401 characteristics "V" and "H" available in 6, 8, and 10 pin sizes in high and low profile. The molded style features a direct thermal compression bonded lead attachment in a rugged molded construction.

Features

- ▲ Gold to gold terminations attachment (no internal solder)
- ▲ Exceptional stability over time and temperature
- ▲ Internally passivated elements
- ▲ Compatible with automatic insertion equipment

Designed To Meet MIL-R-83401 Characteristic "V" and "H"

▼ Figure 28 Mechanical Specifications



▼ Table 7 Typical Performance

Resistance Range	20 ohms to 300K ohms
Absolute Tolerance	0.5% to 0.05%
Ratio Tolerance	0.1% to 0.025%
Absolute TCR	±25 ppm/°C to ±10 ppm/°C
TCR Tracking	±2 ppm/°C (typical less 1 ppm/°C equal values)
Temp Range Operating	-55 to +125°C
Temp Range Storage	-55 to +125°C
Low Voltage Coefficient	< 0.0015 ppm/V
Low Noise	< -35dB
Low Thermal EMF	< 0.08 µV/°C
Shelf Stability	< 100 ppm/yr absolute; < 20 ppm/yr ratio Max
Power Rating	100 mW per element typical at +25°C

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Custom Precision Resistor Networks Single-In-Line (Ceramic Sandwich)

OHMTEK presents a design concept in precision thin film resistor networks. The essence of this new concept is the marriage of two principle design elements...a unique RESISTIVE FILM, having electrical properties comparable to those of wire-wound resistors, and a RUGGED, LOW COST, CERAMIC PACKAGE in an almost limitless variety of sizes and configurations.

Features

- ▲ **Gold-to-gold terminations.** External leads are attached directly to gold pads on the ceramic substrate by thermo-compression bonding (no internal solder).
- ▲ **Low profile (0.200 Min)**
- ▲ **Custom pin-outs available**

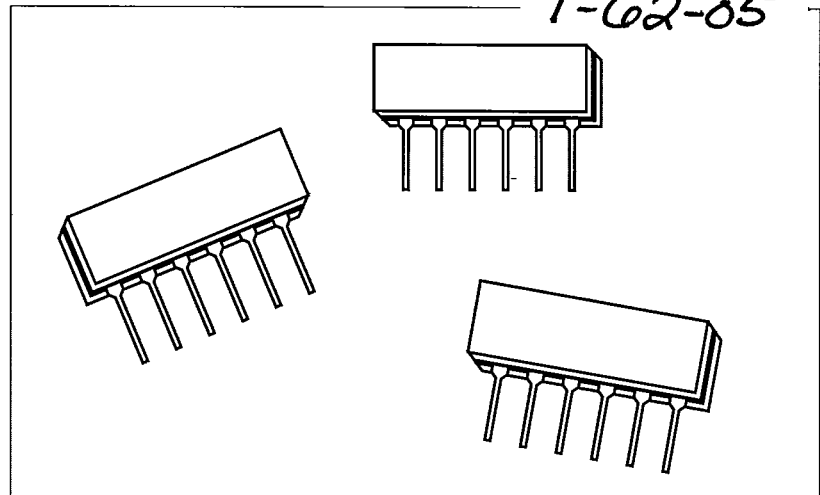
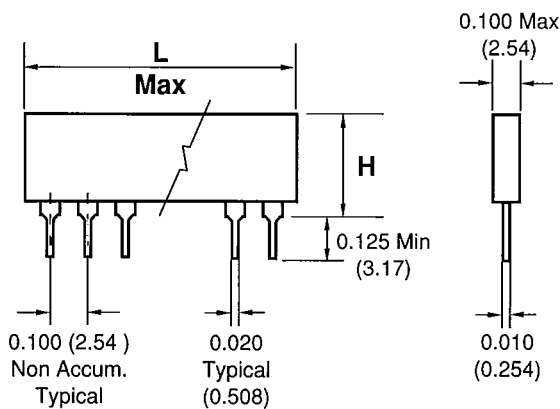


Figure 29 Mechanical Specifications

Dimensions in parenthesis indicate millimeters.



Number of Pins	Length "L" Dimensions	Height "H"
3	0.320	0.200 Standard*
4	0.420	
5	0.520	
6	0.620	
7	0.720	
8	0.820	
9	0.920	
10	1.020	

*Resistance value and schematic dependent. By occupying more than one 0.100" space values up to 10MΩ are available.

Table 8 Typical Performance

Resistance Range	20 ohms to 10 Megohms
Absolute Tolerance	1.0% to 0.05%
Ratio Tolerance	0.5% to 0.01%
Absolute TCR	±25 ppm/°C to ±10 ppm/°C
TCR Tracking	±2 ppm/°C (typical less 1 ppm/°C equal values)
Temp Range Operating	-55 to +125°C
Temp Range Storage	-55 to +125°C
Low Voltage Coefficient	< 0.0015 ppm/V
Low Noise	< -35dB
Low Thermal EMF	< 0.08 μV/°C
Shelf Stability	< 100 ppm/yr absolute; < 20 ppm/yr ratio
Power Rating	100 mW per element typical at +25°C

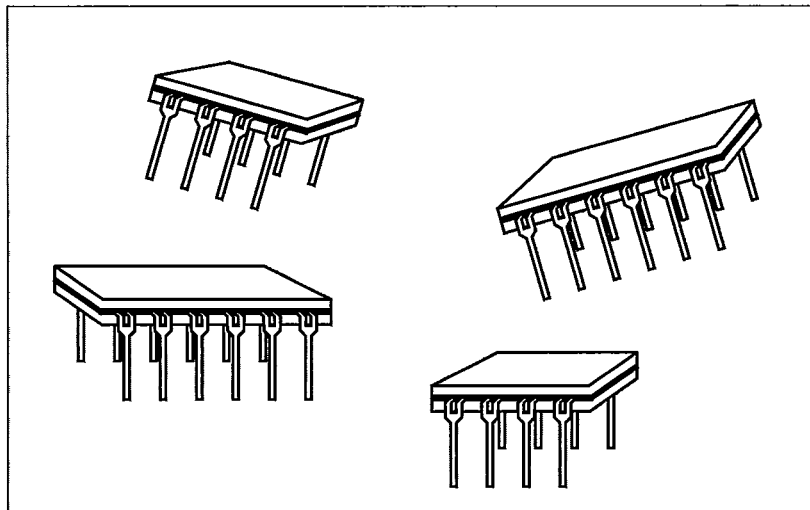
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Custom Precision Resistor Networks Dual-In-Line (Ceramic Sandwich)

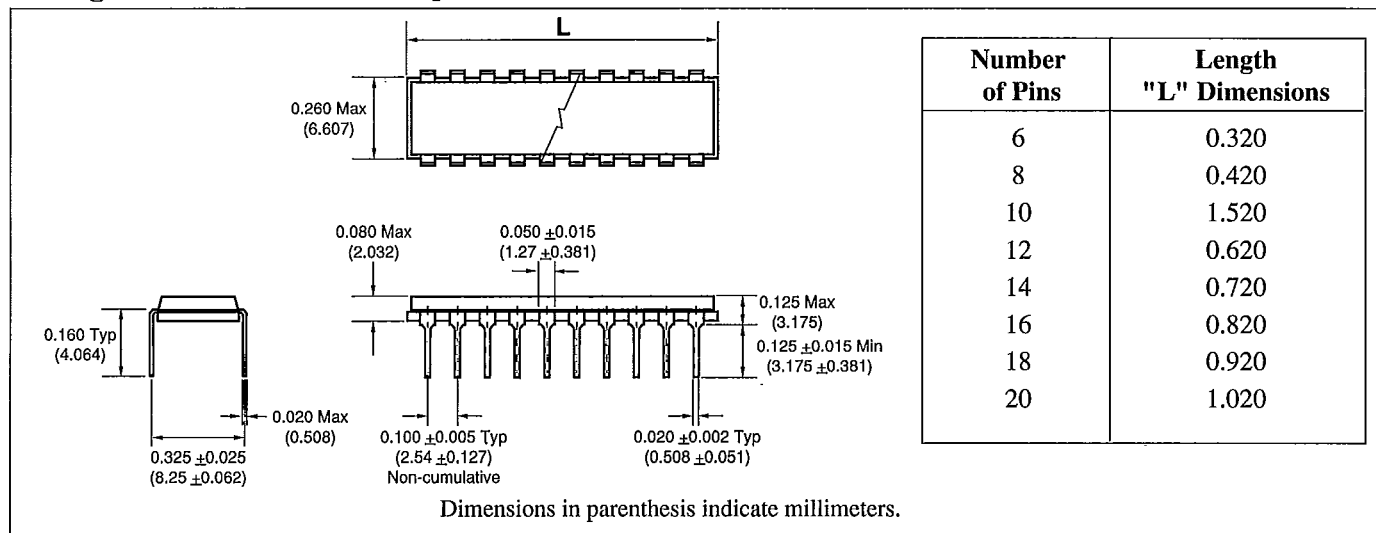


A dual-in-line monolithic ceramic package in an almost limitless variety of sizes and configurations. A rugged, low cost packaging technique with 4 – 22 leads that allows higher resistance integration than chip and wire ceramic packages.

Features

- ▲ **Gold-to-gold terminations.** External leads are attached directly to gold pads on the ceramic substrate by thermo-compression bonding (no internal solder).
- ▲ **Ceramic package with no cavity.**
- ▲ **Flexibility of lead variations to save PC board space.**

▼ **Figure 30 Mechanical Specifications**



▼ **Table 9 Typical Performance**

Resistance Range	100 ohms to 3 Megohms
Absolute Tolerance	1.0% to 0.05%
Ratio Tolerance	0.1% to 0.01%
Absolute TCR	±25 ppm/°C to ±10 ppm/°C (0-70°C)
TCR Tracking	±2 ppm/°C (typical less 1 ppm/°C equal values)
Temp Range Operating	-55 to +125°C
Temp Range Storage	-55 to +125°C
Low Voltage Coefficient	< 0.1 ppm/V
Low Noise	< -35dB
Low Thermal EMF	< 0.1 µV/°C
Shelf Stability	< 100 ppm/yr absolute; < 20 ppm/yr ratio
Power Rating	100 mW per element typical at +25°C

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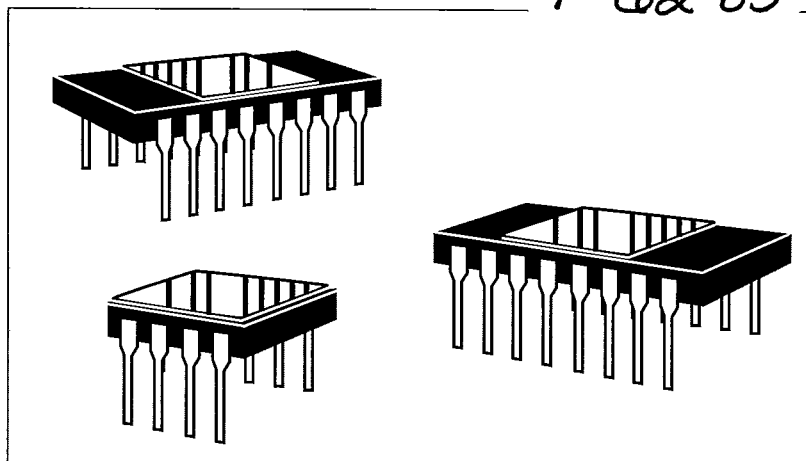
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Custom Precision Resistor Networks Dual-In-Line (Hermetic)

T-62-05

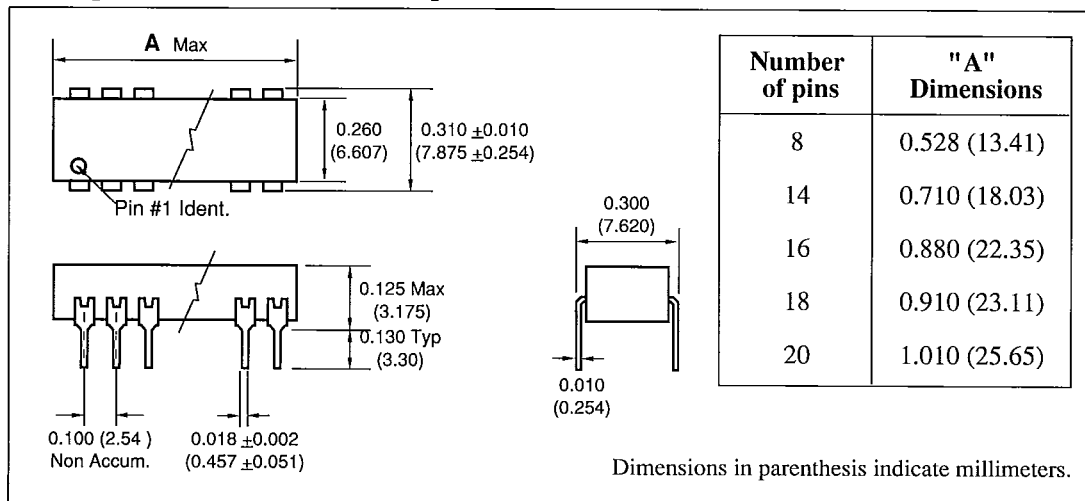
The most advanced thin film technology is put to work in the manufacture of exceptionally stable, precision thin film resistor networks in a variety of popular hermetic-type packages. These networks are based on the utilization of a resistive film possessing outstanding stability throughout board assembly and equipment life.

Manufacturing is performed under rigid process control by a team of specialists having many years experience in the design, fabrication and automatic laser adjustment of several hundred different precision thin film resistor networks. Circuits are designed for specific customer requirements and manufactured according to highly standardized procedures. Testing is conducted in one of the most completely equipped laboratories in the industry.



Designed To Meet or Exceed MIL-R-83401 Characteristic "C"

▼ Figure 31 Mechanical Specifications



▼ Table 10 Typical Performance

Resistance Range	50 ohms to 1.5 Megohms
Absolute Tolerance	1.0% to 0.02%
Ratio Tolerance	0.5% to 0.01%
Absolute TCR	±25 ppm/°C to ±5 ppm/°C
TCR Tracking	±2 ppm/°C (typical less 1 ppm/°C equal values)
Temp Range Operating	-55 to +125°C
Temp Range Storage	-55 to +125°C
Low Voltage Coefficient	< 0.02 ppm/V
Low Noise	< -35dB
Low Thermal EMF	< 0.10 µV/°C
Shelf Stability	< 100 ppm/yr absolute; < 20 ppm/yr ratio Max
Power Rating	100 mW per element typical at +25°C

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