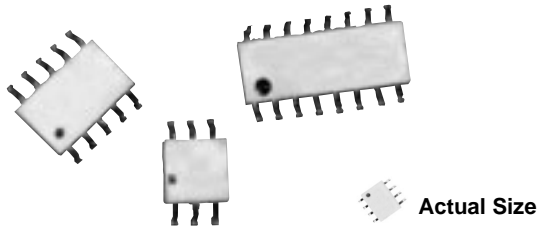


## Sandwich, 50 Mil Pitch, Dual-In-Line Resistor Networks



A Dual-In-Line monolithic ceramic sandwich in a variety of pin sizes (4 - 20) that allow higher resistance integration than traditional chip and wire molded construction. In addition, tighter resistance tolerances can be obtained over traditional molded networks due to the elimination of molding temperature and stress.

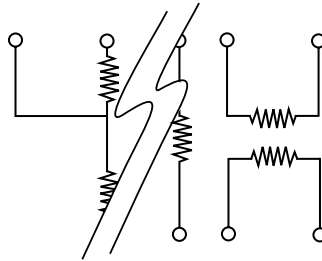
### FEATURES

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

### TYPICAL PERFORMANCE

	ABS	TRACKING
TCR	25	5
	ABS	RATIO
TOL	0.1	0.02

### SCHEMATIC



Custom schematics available  
Please consult factory

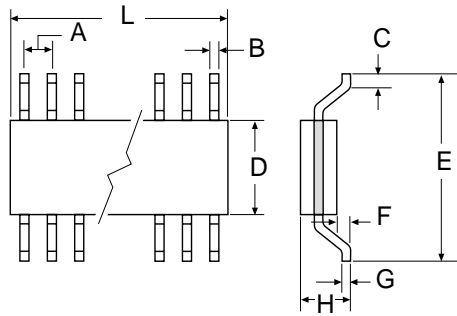
STANDARD ELECTRICAL SPECIFICATIONS			
TEST	SPECIFICATIONS		CONDITIONS
<b>MATERIAL</b>	<b>TAMELOX® OR TANTALUM NITRIDE*</b>		
<b>Resistance Range</b>	100 ohms to 1.5M ohms total		
<b>TCR:</b>	<b>Tracking</b>	± 5 ppm/°C typical	- 55°C to + 125°C
	<b>Absolute</b>	± 50 to ± 25ppm/°C	- 55°C to + 125°C
<b>Tolerance:</b>	<b>Ratio</b>	± 0.1% to ± 0.02%	+ 25°C
	<b>Absolute</b>	± 1% to ± 0.05%	+ 25°C
<b>Power Rating:</b>	<b>Resistor</b>	100mW	per element at + 70°C
	<b>Package</b>	500mWatt	Max. @ + 70°C
<b>Stability:</b>	<b>ΔR Absolute</b>	0.1%	2000 hrs. @ + 70°C
	<b>ΔR Ratio</b>	0.03%	2000 hrs. @ + 70°C
<b>Voltage Coefficient</b>	0.1ppm/Volt		
<b>Working Voltage</b>	100 Volts		
<b>Operating Temperature Range</b>	- 55°C to + 125°C		
<b>Storage Temperature Range</b>	- 55°C to + 150°C		
<b>Noise</b>	< - 30dB		
<b>Thermal EMF</b>	0.08 μV/°C		
<b>Shelf Life Stability:</b>	<b>Absolute</b>	100ppm	1 year @ + 25°C
	<b>Ratio</b>	20ppm	1 year @ + 25°C

\* Tantalum Nitride film is custom, consult factory

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**DIMENSIONS AND IMPRINTING** in inches and millimeters



DIMENSIONS	DIMENSIONS	
	INCHES	MILLIMETERS
A	0.050	1.27
B (Typ.)	0.015	0.38
C	0.017 - 0.005 + 0.010	0.432
D (Max.)	0.157	3.99
E	0.239	6.07
F (Min.)	0.005	0.13
G (Typ.)	0.006	0.15
H (Max.)	0.070	1.72

Number of Pins	6	8	10	12	14	16	18	20
Length "L" ± 0.01	0.150	0.200	0.250	0.300	0.350	0.400	0.450	0.500
Millimeters	3.81	5.08	6.35	7.62	8.89	10.16	11.43	12.70

MECHANICAL SPECIFICATIONS	
Resistive Element	Tamelox® or Tantalum Nitride
Body	Ceramic
Lead Coplanarity	± 0.004
Substrate Material	Alumina
Plating	SN 60
Marking Resistance to Solvents	Per MIL-PRF-83401

**How to Order Check List**

Special requirements should be identified in advance, but as a minimum, you should have the following information ready.

Electrical	Mechanical
<ol style="list-style-type: none"> <li>Resistors, by value and tolerance</li> <li>Reference resistor(s) and matching of which resistors to which reference resistors.</li> <li>Resistance by ratio.</li> <li>Absolute temperature coefficient of resistivity.</li> <li>Temperature tracking of subordinate resistors to reference resistor(s).</li> <li>Maximum operating voltage</li> <li>Resistor power ratings.</li> <li>Operating temperature range.</li> </ol>	<ol style="list-style-type: none"> <li>Maximum allowable seated height (from PC board to top of network)</li> <li>Special marking concerns.</li> <li>Schematic pin out of package.</li> </ol>