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ELECTRONICS

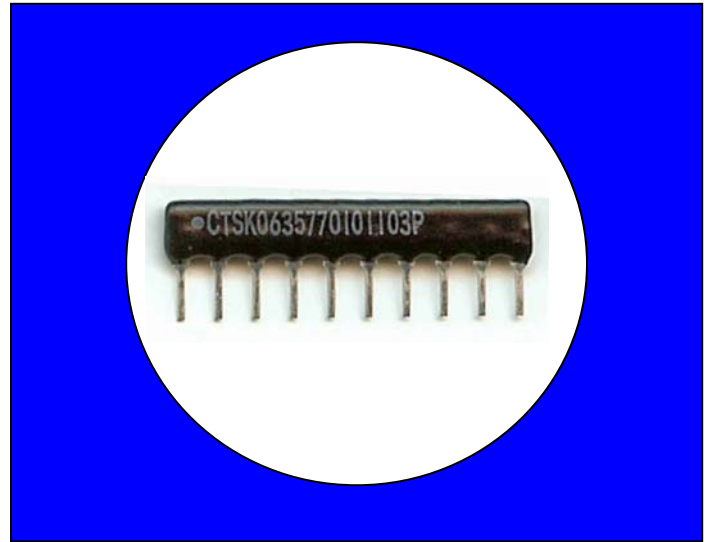
**www.Jameco.com ♦ 1-800-831-4242**

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Jameco Part Number 1180550

**Features**

- High-Reliability Cermet Resistors
- Space Saving Over Individual Resistors
- Available in Odd or Even Number of Pins From 4 to 12 Leads
- 2.54mm/.100 in. Pin Spacing
- Packaged in Bulk
- RoHS Compliant



**Resistance Tolerance:**

Standard:  $\pm 2\%$  or  $0.5\Omega$  (whichever is greater)

**Resistance Range:**

Standard:  $10\Omega$  to  $1\text{ Meg}\Omega$

**Operating Temperature Range:**

$-55^\circ\text{C}$  to  $+125^\circ\text{C}$

**Dielectric Strength:**

100 VAC

**Temperature Coefficient:**

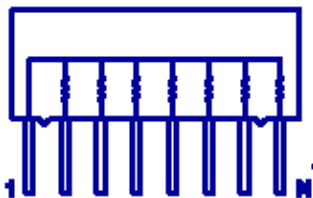
Standard:  $100\Omega$  to  $1\text{ Meg}\Omega$   
 $100\text{PPM}/^\circ\text{C}$  typical  
 $22\Omega$  to  $99\Omega$   
 $\pm 200\text{PPM}/^\circ\text{C}$  typical

**Maximum Operating Voltage:**

100V not to exceed rated power

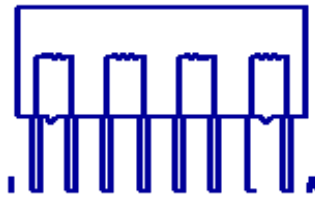
**Types of Circuits**

**Bussed (Schematic 1)**



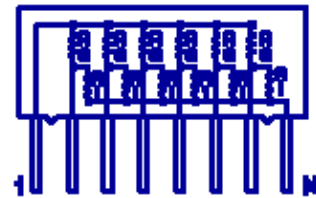
Bussed Schematic 1  
 Available in 4 through 12 Pins

**Isolated (Schematic 3)**



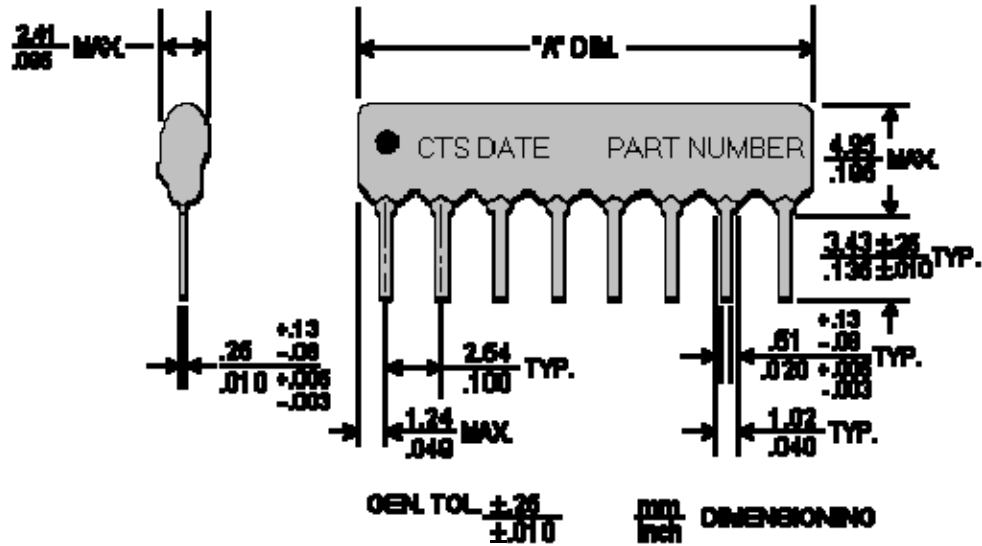
Isolated Schematic 3  
 Available in 4, 6, 8, 10, 12 Pins

**Dual Terminator (Schematic 5)**



Isolated CTS Schematic 5  
 Available in 6, 8, 10 Pins

## Package Dimensions



NOTES:

\*General Tolerances  
mm +/-0.25  
inch +/-0.010

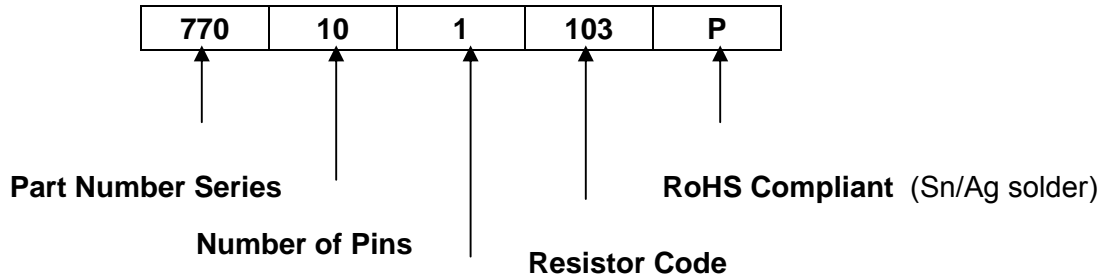
\*Copper Alloy Leads,  
Solder-coated

Number of Pins	"A" Dimension +/-0.25/0.010	Packaged Power @25°C	Packaged Power @70°C
4	10.11/0.398	0.60W	0.40W
5	12.65/0.498	0.83W	0.52W
6	15.19/0.598	0.96W	0.64W
7	17.30/0.698	1.18W	0.76W
8	20.27/0.798	1.32W	0.88W
9	22.81/0.898	1.49W	1.00W
10	25.35/0.998	1.66W	1.11W
11	27.89/1.098	1.83W	1.24W
12	30.43/1.198	2.00W	1.35W
Schematic		Packaged Power @25°C	Packaged Power @70°C
1 & 5		0.15W	0.10W
3		0.30W	0.20W

## Standard Resistor Values & EIA Code

Ohms	Code	Ohms	Code	Ohms	Code	Ohms	Code	Ohms	Code	Ohms	Code
10	100	75	750	510	511	3.9K	392	33K	333	270K	274
12	120	82	820	560	561	4.7K	472	39K	393	330K	334
15	150	100	101	680	681	5.1K	512	47K	473	390K	394
18	180	110	111	820	821	5.6K	562	51K	513	470K	474
22	220	120	121	1K	102	6.8K	682	56K	563	510K	514
27	270	150	151	1.2K	122	8.2K	822	68K	683	560K	564
33	330	180	181	1.5K	152	10K	103	82K	823	680K	684
39	390	220	221	1.8K	182	12K	123	100K	104	820K	824
47	470	270	271	2.0K	202	15K	153	120K	124	1M	105
51	510	330	331	2.2K	222	18K	183	150K	154		
56	560	390	391	2.7K	272	22K	223	180K	184		
68	680	470	471	3.3K	332	27K	273	220K	224		

## How to Order



NOTE: No dashes or spaces to appear in part number.  
Example: 770101103P

### Schematic

- |   |                 |
|---|-----------------|
| 1 | Bussed          |
| 3 | Isolated        |
| 5 | Dual Terminator |

Refer to the EIA Code Noted on Page 2.  
Resistor Code Schematics 1 & 3  
Resistor Value Schematic 5  
Example 220/330 = 220Ω/330Ω  
All part numbers are ±2%

## Packaging

**Bulk Pack** All Products 250 Parts/Bag

## Environmental Performance Specifications

Test	Max. % Delta R	Mil. Std. 202 Method	Test Cond.	Test Description
Thermal Cycling	0.5%	107	B	5 cycles, -65°C to +125°C
Short Time Overload	0.5%			2 1/2 x rated voltage, 5 sec (100V Max.)
Moisture Resistance	0.5%	106		240 hours, 0.1 rated load, -10°C to +65°C, 90% RH
Load Humidity	1.0%			1000 hours, 0.1 rated load, 70°C, 85-92% RH
High Temp Exposure	1.0%			240 hours, no load, @ 125°C
Load Life	1.0%	108	D	1000 hours @ 70°C rated load
Resistance to Solder Heat	0.25%		A	3 second dwell @ 350°C, dwell
Mechanical Shock	0.25%	213	I	100g, 1 msec., 3 shocks each plane
Vibration	0.25%	204	D	20g, 10-2000Hz, 4 hours/plane
Terminal Strength	0.25%			2.0 Kg. pull, 30 sec., three 45° bends
Low Temp Storage	0.25%			24 hours @ -65°C, no load
Low Temp Operation	0.25%			45 min @ -65°C, full load
Flammability	N/A			94V-0
Non-Fungus per MIL-STD 810C				
Resistance to Solvents				Isopropyl alcohol
Solderability				RMA Flux, 230°C, 5 seconds dip, 95% coverage