

PECOS® stands for Porcelain Enamel Coating on Steel. It is a plate resistor system utilizing thick film ruthenium oxide on a porcelain coated steel substrate. Copper plated silver conductors are employed and the resistive element is protected by a glass passivation layer.

These resistors offer low inductance (50nh @1MHz) and very high power densities (15W/in²). Being PC-board mountable, they are economic to install and best suited for applications under 200V operating.

FEATURES

- 15W/in² Power Density
- Low Inductance
- Easy to Install

SPECIFICATIONS

MATERIAL

Substrate: PECOS® (Porcelain Enamel Coating on Steel)

Resistor: Ruthenium Oxide

Coating: Glass

Terminals: Solder Plated

Phosphor Bronze, riveted in place and electrically connected with high temperature solder.

Thermal Conductivity: 60 Watts/Meter/°C, x-y direction

Temperature Coefficient: 150 ppm/°C ≥ 1Ω

ELECTRICAL

Ohmic Range: 1-2500Ω

Tolerance: ±1-5% to 20%

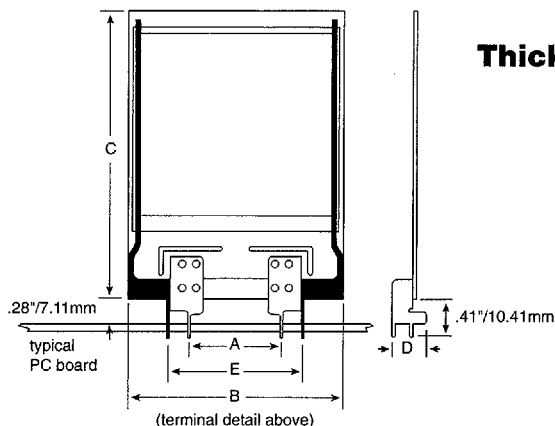
Power Rating: Based on 25°C free air.

Maximum Operating Voltage: 200 VDC

Overload: Five times rated power, as long as the one second average dissipation does not exceed the wattage rating.
ΔR: ±2%, 2000 hours.

TC Series

PECOS® Resistors Thick Film on Porcelainized Steel Substrate



Series	Watts	Dimensions (in. / mm)				
		A	B	C	D	E
TC010PA	10	0.300 / 7.62	0.55 / 13.97	1.25 / 31.75	0.29 / 7.37	0.50 / 12.70
TC020PA	20	0.600 / 15.24	1.10 / 27.94	1.40 / 35.56	0.37 / 9.40	1.00 / 25.40
TC025PA	25	1.000 / 25.40	1.60 / 40.64	1.25 / 31.75	0.37 / 9.40	1.40 / 35.56
TC050PA	50	1.000 / 25.40	1.75 / 44.45	2.50 / 63.50	0.37 / 9.40	1.40 / 35.56
TC100PA	100	1.300 / 33.02	2.55 / 64.77	3.35 / 85.09	0.37 / 9.40	1.70 / 43.18

STOCK PART NUMBERS FOR STANDARD RESISTANCE VALUE

Ohmic value	Part No. Prefix Suffix	Part Numbers					
		TC010PA	TC020PA	TC025PA	TC050PA	TC100PA	
0.8	—R800J	✓	✓	✗	✓	✓	
1.0	—1R00J	✗	✓	✓	✗	✓	
1.5	—1R50J	✓	✓	✓	✗	✓	
2.5	—2R50J	✓	✓	✗	✓	✓	
3.3	—3R30J	✓	✗	✓	✓	✓	
5.0	—5R00J	✓	✗	✓	✓	✗	
10.0	—10R0J	✗	✓	✗	✗	✓	
15.0	—15R0J	✓	✓	✓	✗	✓	
20.0	—20R0J	✗	✗	✓	✓	✓	
30.0	—30R0J	✓	✗	✓	✓	✓	
50.0	—50R0J	✗	✓	✓	✓	✗	
75.0	—75R0J	✓	✓	✓	✗	✓	
82.0	—82R0J	✓	✗	✓	✓	✓	
100.0	—100RJ	✓	✗	✗	✗	✓	
200.0	—200RJ	✗	✗	✓	✓	✓	
1,000.0	—1K00J	✗	✓	✓	✗	✓	
2,500.0	—2K50J	✓	✓	✗	✓	✓	

ORDERING INFORMATION

TC	025	PA	5R00	K
Series	Power Rating	Package Modifier PA=Standard	Ohm Value 5R00 = 5 50R0 = 50	Tolerance J = 5% K = 10% *L = 20%

*20% Values are not laser trimmed and offer enhances surge handling.

LINEAR DERATING

