

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/in<sup>2</sup>). Being PC-board mountable, they are economic to install and best suited for applications under 200V operating.

**FEATURES**

- 15W/in<sup>2</sup> 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%

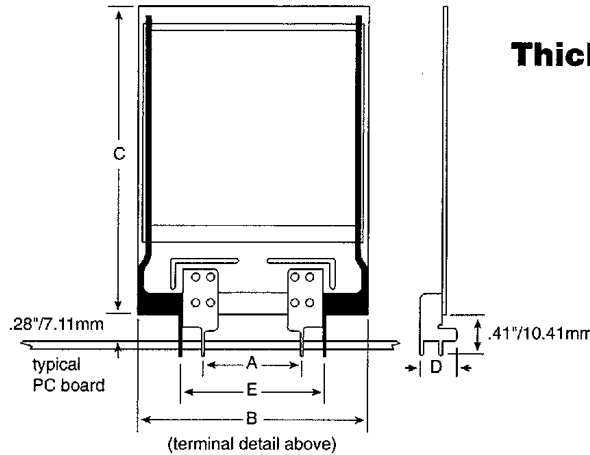
**Power Rating:** Based on 25°C free air.

**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

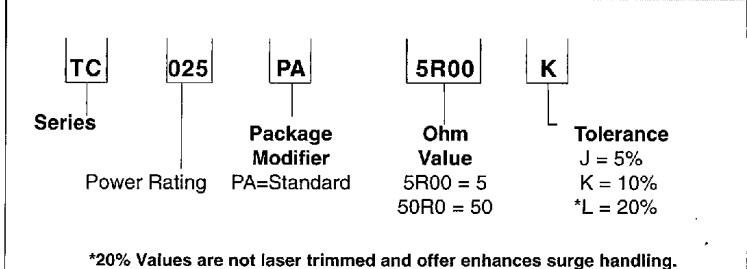


Series	Watts	Dimensions (in. / mm)				
		A	B	C	D	E
TC010PA	10	0.300 / 7.62	0.55 / 13.97	1.25 / 31.75	0.29 / 7.37	0.50 / 12.70
TC020PA	20	0.600 / 15.24	1.10 / 27.94	1.40 / 35.56	0.37 / 9.40	1.00 / 25.40
TC025PA	25	1.000 / 25.40	1.60 / 40.64	1.25 / 31.75	0.37 / 9.40	1.40 / 35.56
TC050PA	50	1.000 / 25.40	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 Numbers					
	Part No. Prefix → Suffix ↓	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**



**LINEAR DERATING**

