

TP Series



High Energy Thick Film on Alumina Substrate

TP Series high energy resistors offer the user the benefits of non-inductive performance and high power density. As an added feature, they provide the impulse energy capability normally associated with wirewound or composition resistors. Double-sided screen printing of pulse-tolerant thick film ink, coupled with a sophisticated scan-cut laser trimming process, maximize the energy withstanding capabilities of the TP Series.

FEATURES

- High-Temp Terminal Construction
- Wide Resistance Range
- Low Inductance (50nH-100nH)
- High Power Density
- Easy to install. PC-mountable



CHARACTERISTICS

Substrate	Alumina
Resistor	Thick Film
Coating	Glass
Terminals	Solder Plated Phosphor Bronze
Thermal Conductivity	20 Watts/Meter/°C
Temperature Coefficient	1 to 100Ω: 100 ppm/°C 101Ω and up: 50 ppm/°C
Tolerance	±1%, ±5% and ±10%
Power Rating	Based on 25°C free air
Resistance Range	10 ohms to 1M ohm. Consult factory for other values
Maximum Operating Voltage	350 VAC, 500 VDC through glass, 1000 VAC, 1500 VDC through substrate
Energy Rating	100J: 100ms pulse with 100uF capacitor, not to exceed 1500 volts
Derating	100% @ 25°C to 0% @ 180°C ambient.

Pulse

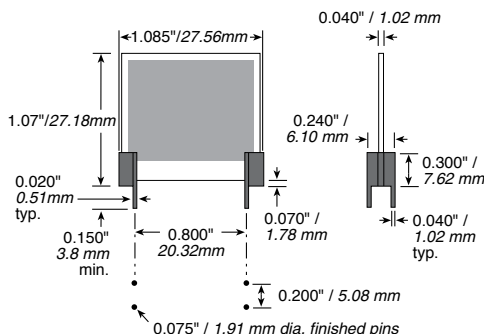
$$E = \frac{1}{2} CV^2$$

$$t = RC$$

E = Energy (joules)
t = Time (seconds)
V = Voltage (volts)
R = Resistance (ohms)
C = Capacitance (farads)

DIMENSIONS

(±.020 in. / ±.508mm)



ORDERING INFORMATION

Pin spacing 8 = 0.80"		Tolerance K = 10% J = 5%		RoHS compliant	
TP	810	PW	4K	50	JE
Series	Power Rating 10 = 10 watts	Package PW = wraparound terminal	Resistance Value (Ω) 10R0 = 10.0 2K00 = 2,000 45K0 = 45,000		

Standard part numbers for TP series

TP810PW10R0JE
TP810PW20R0JE
TP810PW50R0JE
TP810PW100RJE
TP810PW470RJE
TP810PW1K00JE
TP810PW4K70JE
TP810PW10K0JE