# **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

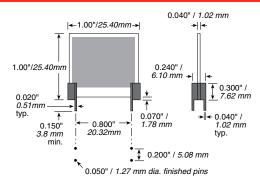
- High-Temp Terminal Construction
- Wide Resistance Range
- Low Inductance (50nH-100nH)
- High Power Density
- Easy to install.
  PC-mountable



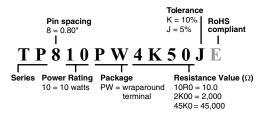
CHARACTERISTICS		
Substrate	Alumina	Pulse
Resistor	Thick Film	ruise
Coating	Glass	$\bigvee_{V}  E = \frac{1}{2}CV^2$
Terminals	Solder Plated Phosphor Bronze	t = RC
Thermal Conductivity	20 Watts/Meter/°C	> t  <b>∢</b>
Temperature Coefficient	1 to 100Ω: 100 ppm/°C 101Ω and up: 50 ppm/°C	E = Energy (joules) t = Time (seconds) V = Voltage (volts)
Tolerance	±1%, ±5% and ±10%	R = Resistance (ohmś)
Power Rating	Based on 25°C free air	C = Capacitance (farads)
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.	

#### DIMENSIONS

 $(\pm .020 in. / \pm .508 mm)$ 



#### **ORDERING INFORMATION**



#### Standard part numbers for TP series

TP810PW10R0JE TP810PW20R0JE TP810PW50R0JE TP810PW100RJE TP810PW470RJE TP810PW1K00JE TP810PW4K70JE TP810PW10K0JE

