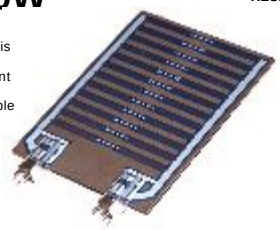
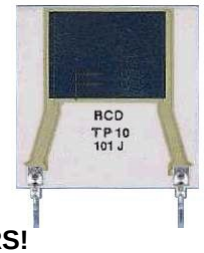
RESISTORS•CAPACITORS•COILS•DELAY LINES

HIGH POWER PLANAR RESISTORS, 5W to 100W

TP SERIES CERAMIC SUBSTRATE
TPS SERIES STEEL SUBSTRATE

RoHS Term.W is RoHS compliant & 260°C compatible





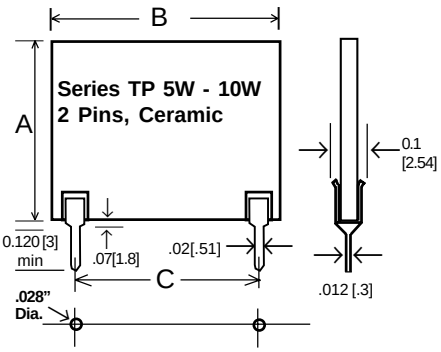
- ❒ Space saving flame retardant design
- ❒ High power density
- ❒ Thin profile, and lightweight
- ❒ Low Inductance: 50nh typ at 1MHz
- ❒ Wide resistance range: 0.5Ω to 1MΩ
- ❒ Excellent transient withstanding capabilities
- ❒ Standard tolerances: as tight as ±0.5%

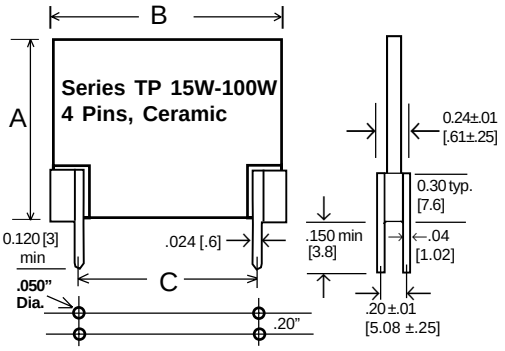
OPTIONS

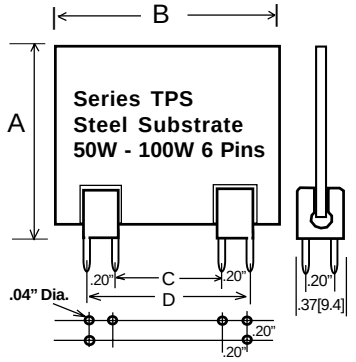
❒ Special marking, extended value range, custom sizes and shapes, burn-in and military screening, insulated leads, quick-disconnect terminals, multiple resistor circuits, etc. Consult factory for assistance.

SPACE SAVING THICK FILM PLANAR RESISTORS!

Series TP/TPS offer high power density in a lightweight design. Designed for switch mode power supplies, snubber circuits, heaters, in-rush limiters, dynamic braking, and other power applications, the planar construction offers significant PCB real estate savings over conventional resistors, especially in forced air applications. The unique design enables very low inductance and excellent surge capabilities. Series TP utilize alumina substrates for excellent heat dissipation. Series TPS utilize stainless steel substrates for even greater dissipation and durability. A special hi-temp/hi-voltage dielectric insulates the resistor and terminals from the metal substrate, enabling greater voltage and insulation compared to porcelain enameled models.







RCD Type	Wattage @ 25°C	Max. Voltage Rating[1]	Standard Resistance Range[2]	DIMENSIONS Inch [mm]			
				A Max	B Max	C	D
TP05	5W	500V	1Ω to 200K	1.015 [25.8]	.512 [13]	.200±.01[3] [5.08±.25][3]	-
TP07[5]	7.5W	500V	1Ω to 200K	1.015 [25.8]	.765 [19.4]	.500±.01[3,4] [12.7±.25]	-
TP10	10W	500V	1Ω to 300K	1.015 [25.8]	1.015 [25.8]	.800±.01[3] [20.3±.25]	-
TP15[5]	15W	500V	1Ω to 1MΩ	1.22 [31]	1.27 [32.26]	1.00±.02 [25.4±.5]	-
TP25[5]	25W	500V	1Ω to 1MΩ	1.18 [30]	2.22 [56.39]	1.90±.02 [48.26±.5]	-
TP50[5]	50W	500V	1Ω to 1MΩ	2.27 [57.66]	2.22 [56.39]	1.90±.02 [48.26±.5]	-
TPS50	50W	250V	0.5Ω to 10KΩ	2.80 [71.1]	1.77 [44.96]	1.00±.02 [25.4±.5]	1.40±.02 [35.56±.5]
TPS100	100W	300V	0.5Ω to 20KΩ	3.65 [92.7]	2.59 [65.8]	1.30±.02 [33.02±.5]	1.70±.02 [43.18±.5]

[1] Maximum Operating Voltage is DC or AC peak [2] Expanded range available [3] Available with 0.300" [7.62mm] pin spacing, specify opt.78 [4] Available with 0.200" [5.08mm] pin spacing, specify opt.80
[5] Preliminary information

TYPICAL PERFORMANCE CHARACTERISTICS

Load Life (1000 hours)	±2%
Moisture Resistance	±1%
Temperature Cycling	±1%
Overload (not to exceed max voltage)	5x rated W, 200mS
Dielectric Strength	500VDC (750V avail)
Resistance to Solder Heat (260°C, 5 sec)	±0.5%
Temperature Coefficient (ppm/°C)	100ppm°C (≥2%=200ppm)
Operating Temperature	TP = -55°C to 170°C TPS = -55°C to 275°C
Power Derating	TP = 1%/°C > 70°C TPS = 0.4%/°C > 25°C

P/N DESIGNATION:

TP05 ☐ - 102 - J B W

RCD Type

Options: assigned by RCD (leave blank for standard)

Resis.Code 0.5%, 1%: 3 signif. figures & multiplier, e.g. 1R00=1Ω,10R0=10Ω,1000=100Ω,1001=1K, etc.
Resis.Code 2%-10%: 2 signif. figures & multiplier, e.g. R50=.5Ω, 1R0=1Ω, 100=10Ω,101=100Ω,102=1K, etc.

Tol. Code: D=0.5%, F=1%, G=2%, J=5%, K=10%, M=20%

Packaging: B = Bulk

Termination: W= Lead-free, Q= Tin/Lead (leave blank if either is acceptable)

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