

# HIGH POWER CHIP RESISTORS, TERMINATIONS

## 50 & 100 OHMS

# SERIES PPC, NPC

### GENERAL INFORMATION

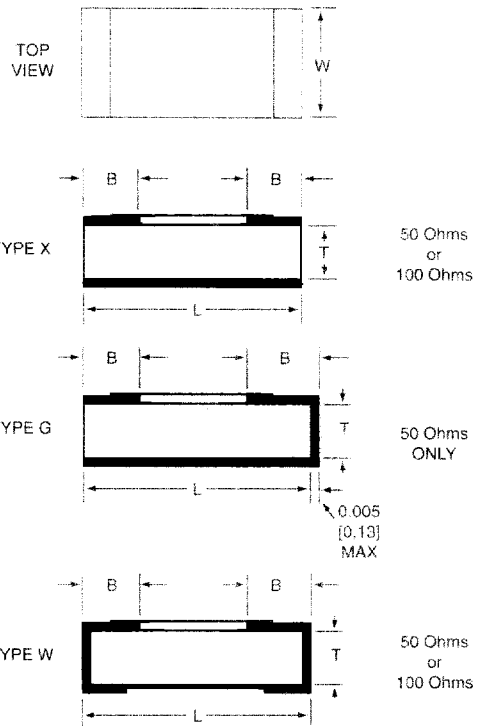
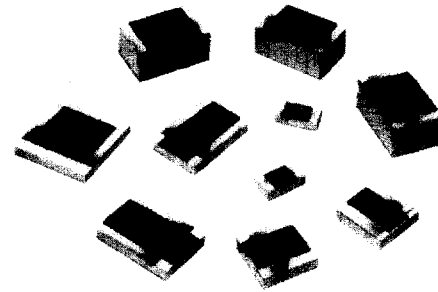
When mounted on an appropriate heat sink, these chip devices provide high power dissipation in terminations and as balancing resistors in Wilkinson power divider networks. Laser trimming provides maximum peak and average R.F. power capability.

### GENERAL SPECIFICATIONS

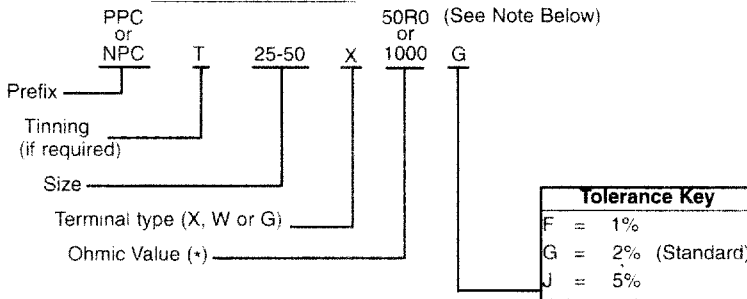
<b>DC Voltage (Maximum):</b>	$E = \sqrt{PR}$
<b>Resistive Tolerance:</b>	$\pm 2\%$ standard
<b>Solderable Terminals:</b>	Electroplated Silver over Nickel (PPC) Gold over Nickel alloy (NPC)
<b>Substrate:</b>	Beryllium Oxide Ceramic
<b>Resistive Element:</b>	Thin Film *
<b>Environment:</b>	Meets applicable portions of MIL-R-55342

#### Notes:

- The "L" and "T" dimensions are for the substrate only and do not include terminal thickness or optional tinning thickness.
- Thermal Resistance ( $R\theta$ ) is measured in  $^{\circ}\text{C}/\text{W}$  between resistive film and mounting surface.
- The CW power rating is based on maximum film temperature of  $+150^{\circ}\text{C}$  and with maximum heatsink temperature of  $+100^{\circ}\text{C}$ . Power is based on infinite and ideal heatsink. Type "W" termination style does not have full back plane metallization and typically handles less power.



#### TYPICAL MODEL NO.



#### Note:

Resistance value is expressed using military 4-digit call-out.  
 50R0 = 50 ohms  
 1000 = 100 ohms  
 Other values from 10–500 ohms available. Contact factory.

### PERFORMANCE SPECIFICATIONS

Model Prefix	W	L (Note 1)	T (Note 1)	B	Capacitance (pF) Typical	$R\theta$ C/W Maximum (Note 2)	CW Power (Maximum) (Note 3)	Typical Power
* PPC 100-200A	0.100[2,5]	0.200[5,1]	0.040[1,02]	0.030[0,76]	0.8	0.80	62W	20W
* PPC 250-250A	0.250[6,4]	0.250[6,4]	0.040[1,02]	0.050[1,27]	1.2	0.30	170W	40W
* PPC 250-250B	0.250[6,4]	0.250[6,4]	0.062[1,57]	0.050[1,27]	0.8	0.45	110W	30W
* PPC 250-375A	0.250[6,4]	0.375[9,53]	0.040[1,02]	0.050[1,27]	3.5	0.15	330W	150W
PPC 250-375B	0.250[6,4]	0.375[9,53]	0.135[3,43]	0.050[1,27]	1.0	0.50	100W	75W
NPC 20-40	0.020[0,5]	0.040[1,02]	0.010[0,25]	0.010[0,25]	—	6.00	8W	2W
NPC 25-50	0.025[0,64]	0.050[1,27]	0.010[0,25]	0.012[0,305]	—	3.90	12W	3W
NPC 50-50	0.050[1,27]	0.050[1,27]	0.010[0,25]	0.012[0,305]	—	1.90	25W	5W
* NPC 50-100	0.050[1,27]	0.100[2,5]	0.010[0,25]	0.017[0,43]	—	0.72	70W	10W
NPC 75-150	0.075[1,91]	0.150[3,8]	0.010[0,25]	0.020[0,51]	—	0.29	170W	15W

\* Low cost thick film models available on these sizes. Consult factory for specifications.

REF: (inches) [millimeters] IX = 0.01, XX = 0.010, X = 0.05, XX = 0.25



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