

# 5W TO 50 WATT POWER RESISTORS CERAMIC ENCASED, RADIAL LEADS

## PWLL & PWH SERIES

- ☐ Low cost, fireproof construction
- ☐ 0.1Ω to 150KΩ, ±5% is standard (0.5% to 10% avail.)

### OPTIONS

- ☐ Option X: Non-Inductive
- ☐ Option P: Increased pulse capability
- ☐ Option G: 1/4x.032" male fast-on terminals (PWH & PWHM15-50)



Term.W is  
RoHS  
compliant  
& 260°C  
compatible



PWLL and PWH resistors are designed for general purpose and semi-precision power applications. The ceramic construction is fireproof and resistant to moisture & solvents. The internal element is wirewound on lower values, power film on higher values (depending on options, e.g. opt. P parts are always WW). If a specific construction is preferred, specify opt.'WW' for wirewound, opt.'M' for power film (not available in all values).

RCD Type	Wattage (25°C)	Resis. Range	Max.Cont. Working Voltage <sup>1</sup>	DIMENSIONS: Inch (mm)						
				L (max)	W (max)	H (max)	LS	P1	P2	P3 ±.06 [1.5]
PWLL5	5	.1Ω-50K	350	1.10 [28]	.413 [10.5]	.413 [10.5]	.59±.06 [15±1.5]	.055±.01[1.4±.25]	.11 [2.8] min	.413 [10.5] <sup>3</sup>
PWLL7	7	.1Ω-100K	500	1.42 [36]	.413 [10.5]	.413 [10.5]	.89±.06[22.5±1.5]	.055±.01[1.4±.25]	.11 [2.8] min	.413 [10.5] <sup>3</sup>
PWLL10	10	.2Ω-100K	700	1.93 [49]	.413 [10.5]	.413 [10.5]	1.26±.06 <sup>4</sup> [32±1.5]	.055±.01[1.4±.25]	.11 [2.8] min	.413 [10.5] <sup>3</sup>
PWLL15	15	.5Ω-100K	750	1.95 [49.5]	.532 [13.5]	.532 [13.5]	1.26±.08 [32±2]	.108±.012[2.75±.3]	.15 [3.8] min	.591 [15] <sup>3</sup>
PWLL25	25	.5Ω-100K	1000	2.54 [64.5]	.591 [15]	.591 [15]	1.77±.08 [45±2]	.108±.012[2.75±.3]	.15 [3.8] min	.591 [15] <sup>3</sup>
PWH10, PWHM10	10 <sup>2</sup>	.5Ω-50K	700	1.97 [50]	.433 [11.0]	.473 [12.5]	1.30±.08 [33±2]	.470 ± .04 [12 ± 1]	.22 ±.04 [5.5±1]	.275 [7]
PWH15, PWHM15	15 <sup>2</sup>	.5Ω-150K	750	1.97 [50]	.531 [13.5]	.572 [14.5]	1.30±.08 [33±2]	.470 ± .04 [12 ± 1]	.24 ±.04 [6 ± 1]	.315 [8]
PWH25, PWHM25	25 <sup>2</sup>	.5Ω-150K	1000	2.56 [65]	.598 [15.2]	.591 [15]	1.77±.12 [45±3]	.470 ± .04 [12 ± 1]	.24 ±.04 [6 ± 1]	.315 [8]
PWH40, PWHM40	40 <sup>2</sup>	1Ω-2K	1000	3.03 [77]	.787 [20.0]	.847 [21.5]	2.17±.08 [55±3]	.69 ±.04 [17.5 ± 1]	.28 ±.06 [7±1.5]	.394 [10]
PWH50, PWHM50	50 <sup>2</sup>	1Ω-2K	1000	3.62 [92]	.787 [20.0]	.847 [21.5]	2.72±.12 [69±3]	.69 ±.04 [17.5 ± 1]	.28 ±.06 [7±1.5]	.394 [10]

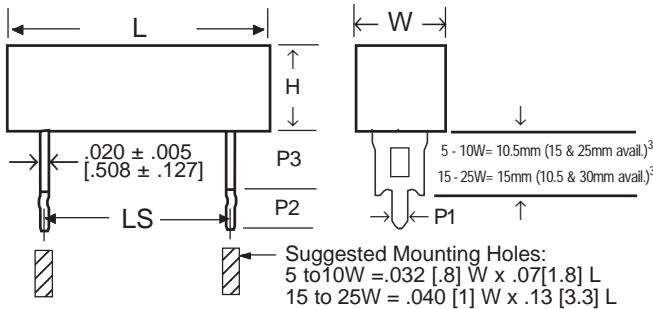
<sup>1</sup> Max voltage determined by E=(PR)<sup>1/2</sup>, E not to exceed MCWV (increased voltage levels avail.)

<sup>2</sup> When mounted on suitable heatsink, PWHM wattage may be increased by 25% (use thermal grease)

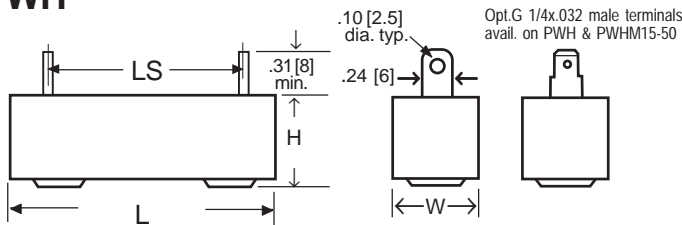
<sup>3</sup> PWLL5,PWLL7,PWLL10 also avail. with 15 or 25mm standoff terminals (specify opt.15 or 25); PWLL15 & PWLL25 avail. with 10.5mm or 30mm, specify options 10 or 30.

<sup>4</sup> 1.39"[35mm] avail., specify opt. 35

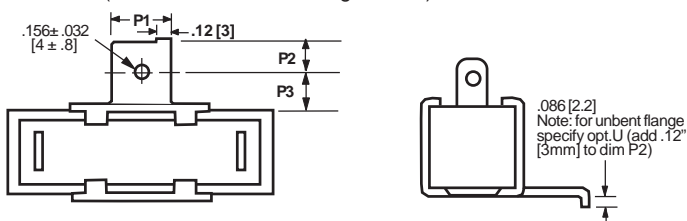
### PWLL



### PWH



### PWHM (PWH with metal mounting bracket)



### PERFORMANCE (typ.)

Temperature Coef <sub>T25 to T100</sub>	1Ω & above	100ppm/°C typ., 300ppm max *
	Below 1Ω	200ppm/°C typ., 600ppm max. *
Operating Temp.	-55° to +235° C (275° C avail)	
Terminal Strength	5 lbs. minimum	
Dielectric Strength	1000V	
5 Sec. overload (≤1.5x max V)	3X rated wattage (Opt. WW = 5X)	
Moisture Resistance	3.0%	
High Temp. Exposure	1.0%	
Load Life (1000 hours)	3.0%	
Temperature Cycling	2.0%	
Shock and Vibration	1.0%	
Inductance (standard parts are inductive, specify opt.X for low inductance version)	Opt.X 25W & smaller: ≤50Ω=0.3uH max, >50Ω= 0.6uH max. Opt. X 30W & larger: ≤50Ω=1uH max, >50Ω= 2uH max). Reduced induc. avail.	
Temperature Rise	100 to 140°C typ at 50% rated power, 200 to 250°C typ at full rated power	
Derating	Derate wattage and voltage by .48%/°C above 25° C	

\* Tightened TC's available, consult factory

### P/N DESIGNATION:

