



RESISTOR

- ▶ 5W to 50W, Ceramic Encased, Radial Leads
- ▶ Low cost, fireproof construction
- ▶ 0.10Ω to 150KΩ, ±5% is standard (0.50% to 10% available)

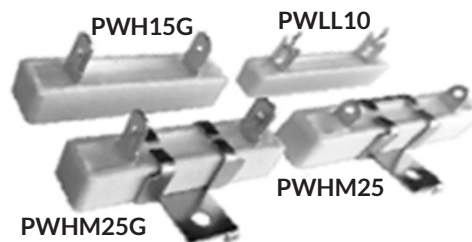
CUSTOM OPTIONS

- ▶ **Opt. X:** Non-Inductive
- ▶ **Opt. P:** Increased Pulse Capability
- ▶ **Opt. G:** 1/4 x 0.032" Male Fast-On Terminals (all PWH sizes & PWHM15-50)

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 size and options (**Opt. P** parts are always Wirewound). If a specific construction is preferred specify **Opt. WW** for Wirewound, **Opt. M** for Power Film (not available in all values).



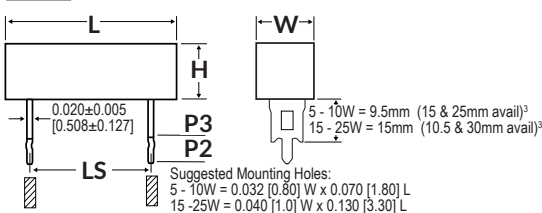
POWER RESISTORS PWLL & PWH SERIES



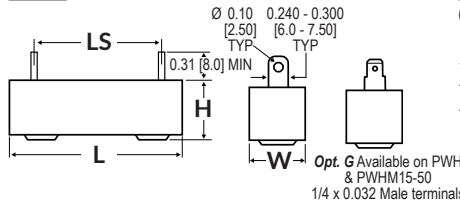
RCD TYPE	WATTAGE @ 25°C (W)	RESISTANCE RANGE ⁶	MAX CONT. VOLTAGE ¹ (V)	DIMENSIONS In (mm)						
				L MAX	W MAX	H MAX	LS	P1	P2	P3 ³ ±0.06[1.50]
PWLL5	5	0.10Ω - 50K	350	1.10 [28]	0.413 [10.5]	0.413 [10.5]	0.59±0.06 [15±1.5]	0.055±0.010 [1.4±0.25]	0.110 [2.8] MIN	0.413 [10.5] ³
PWLL7	7	0.10Ω - 100K	500	1.42 [35]	0.413 [10.5]	0.413 [10.5]	0.89±0.06 [22.5±1.5]	0.055±0.010 [1.4±0.25]	0.110 [2.8] MIN	0.413 [10.5] ³
PWLL10	10	0.20Ω - 100K	700	1.93 [49]	0.413 [10.5]	0.413 [10.5]	1.26±0.064 [32±1.5]	0.055±0.010 [1.4±0.25]	0.110 [2.8] MIN	0.413 [10.5] ³
PWLL15	15	0.50Ω - 100K	750	1.95 [49.5]	0.532 [13.5]	0.532 [13.5]	1.26±0.080 [32±2.0]	0.108±0.012 [2.75±0.30]	0.150 [3.8] MIN	0.591 [15.0] ³
PWLL25	25	0.50Ω - 100K	1000	2.54 [64.5]	0.591 [15.0]	0.591 [15.0]	1.69±0.100 [43±2.5]	0.108±0.012 [2.75±0.30]	0.150 [3.8] MIN	0.591 [15.0] ³
PWLL40	40 - 50 ⁵	1.0Ω - 2.0K	1000	3.62 [92]	0.787 [20.0]	0.847 [21.5]	2.68±0.080 [68±2.0]	0.118±0.012 [2.75±0.30]	0.197 [5.0] MIN	0.590±0.120 [15±3.0]
PWH10 PWHM10	10 ²	0.50Ω - 50K	700	1.97 [50]	0.433 [11.0]	0.473 [12.5]	1.30±0.080 [33±2.0]	0.470±0.040 [12±1.0]	0.220±0.040 [5.5±1.0]	0.275 [7.0]
PWH15 PWHM15	15 ²	0.50Ω - 150K	750	1.97 [50]	0.531 [13.5]	0.572 [14.5]	1.30±0.080 [33±2.0]	0.470±0.040 [12±1.0]	0.240±0.040 [6.0±1.0]	0.315 [8.0]
PWH25 PWHM25	25 ²	0.50Ω - 150K	1000	2.56 [65]	0.598 [15.2]	0.591 [15.0]	1.69±0.100 [43±2.5]	0.470±0.040 [12±1.0]	0.240±0.040 [6.0±1.0]	0.315 [8.0]
PWH40 PWHM40	40 ²	1.0Ω - 2.0K	1000	3.03 [77]	0.787 [20.0]	0.847 [21.5]	2.17±0.120 [55±3.0]	0.690±0.040 [17.5±1.0]	0.280±0.060 [7.0±1.5]	0.394 [10.0]
PWH50 PWHM50	50 ²	1.0Ω - 2.0K	1000	3.62 [92]	0.787 [20.0]	0.847 [21.5]	2.72±0.120 [69±3.0]	0.690±0.040 [17.5±1.0]	0.280±0.060 [7.0±1.5]	0.394 [10.0]

¹ Max voltage determined by E = (PR)^{1/2}, E not to exceed MCWW (increased voltage levels available). ² When mounted on suitable heatsink, PWHM wattage may be increased by 25% (use thermal grease). ³ PW5LL, PW7LL, PW10LL also available with 15mm to 25mm standoff terminals (specify **Opt. 15** or **Opt. 25**); PW15LL, PW25LL available with 9.5mm ±1mm or 30mm, specify **Opt. 10** or **Opt. 30**. ⁴ 1.39 [35] available, specify **Opt. 35**. ⁵ PWLL40 is rated 40W at 70°C, 50W at 25°C. ⁶ Expanded range is available; consult factory.

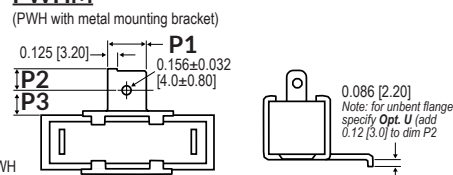
PWLL



PWH



PWHM



TYPICAL PERFORMANCE

Temperature Coefficient (T25 to T100)	1Ω & Above	100ppm/°C TYP, 300ppm/°C MAX *
	Below 1Ω	200ppm/°C TYP, 600ppm/°C MAX *
Operating Temperature Range		-55°C to +235°C (275°C avail.)
Terminal Strength		5 lbs. MIN
Dielectric Strength		1000 V
5 Sec. Overload (≤1.5x MAX V)		3X rated Wattage (Opt. WW = 5X)
Moisture Resistance		3.0%
High Temperature 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 = 0.30μH MAX, >50Ω = 60μH MAX Opt. X 30W & Larger: >50Ω = 1μH MAX, >50Ω = 2μH MAX. (Reduced inductance available)
Temperature Rise		100°C to 140°C TYP at 50% rated power 200°C to 250°C TYP at full rated power
Derating Above 25°C		Derate Wattage & Voltage by 0.48%/°C

* Tightened TC's available, consult factory.

PART NUMBER DERIVATION

