

SMT PULSE RESISTORS PRM SERIES



RESISTOR



FEATURES

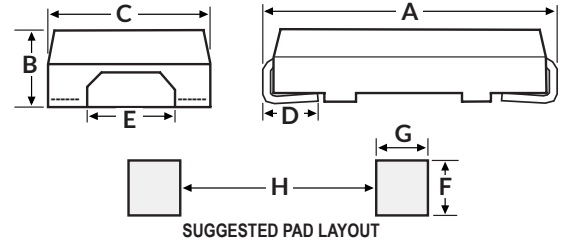
- ▶ High voltage / high surge capability
- ▶ Cost effective surface mount package

OPTIONS

- ▶ **Opt. ER:** Group A Screening per MIL-R-39008 RCR
- ▶ **Opt. B:** Increased Power
- ▶ **Opt. X:** Non-Inductive

Pulse tolerant surface mount resistors!

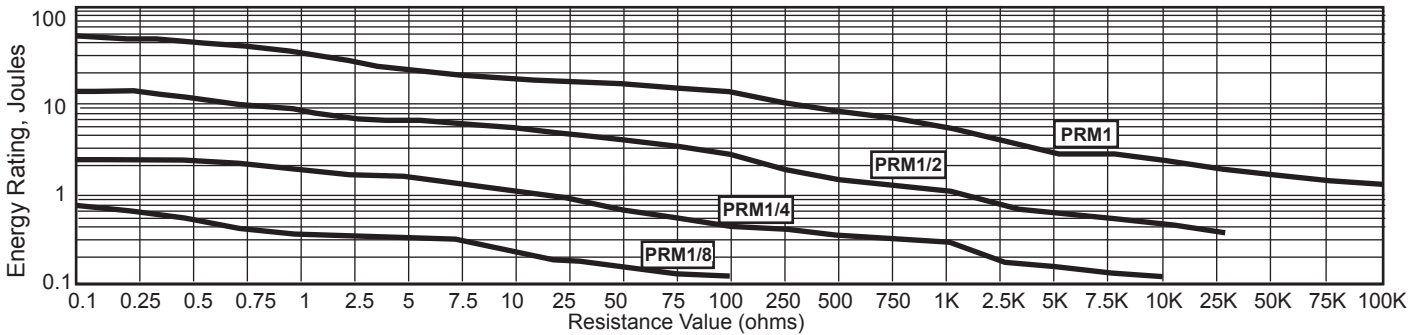
Series PRM withstand high energy pulses and are superior to conventional film & wirewound types. The heavy duty construction features a ceramic core, enabling improved thermal transfer and long term stability. Elements are protected by flame-retardant molding for excellent environmental performance. Alpha-numeric marking is standard. PRM resistors are cost effective in a wide variety of pulse applications, including telecom line feed resistors, snubber circuits, in-rush currents, capacitor charge/discharge circuits, lightning surge, etc.



RCD TYPE	WATTAGE RATING		MAX VOLTAGE RATING ^{1,3,4} (V)	MAX PEAK PULSE VOLTAGE ^{2,4} (KV)	RESIS. RANGE	DIMENSIONS In [mm]							
	STD (W)	OPT. B (W)				A	B	C	D MIN	E	F	G	H
PRM1/8	0.125	0.50	150	2.0	0.10Ω - 2K	0.200±0.020 [5.10±0.50]	0.096±0.015 [2.44±0.38]	0.120±0.010 [3.18±0.25]	0.025 [0.63]	0.045±0.015 [1.14±0.38]	0.080 [2.0]	0.100 [2.50]	0.080 [2.0]
PRM1/4	0.250	1.0	250	3.5	0.10Ω - 10K	0.258±0.020 [6.55±0.50]	0.110±0.015 [2.79±0.38]	0.150±0.015 [3.81±0.38]	0.032 [0.80]	0.060±0.015 [1.50±0.38]	0.100 [2.5]	0.125 [3.20]	0.120 [3.0]
PRM1/2	0.500	2.0	350	5.0	0.10Ω - 24K	0.472±0.024 [12.0±0.60]	0.208±0.020 [5.30±0.50]	0.228±0.016 [5.80±0.40]	0.050 [1.27]	0.070±0.020 [1.78±0.50]	0.160 [4.0]	0.180 [4.57]	0.200 [5.0]
PRM1	1.0	4.0	500	10	0.10Ω - 100K	0.811±0.020 [20.6±0.50]	0.275±0.020 [6.99±0.50]	0.273±0.020 [6.93±0.50]	0.063 [1.60]	0.102±0.028 [2.60±0.70]	0.200 [5.0]	0.200 [5.0]	0.600 [15.2]

¹ Rated continuous voltage = $\sqrt{P \times R}$, not to exceed the value listed. ² Pulse voltage capability is dependent on resistance value, waveform & repetition rate. ³ Expanded range available. ⁴ Multiply by 0.70 on **Opt. X** parts.

SURGE CAPABILITY

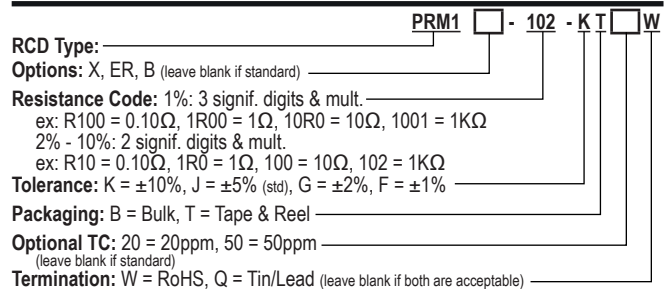


NOTES

APPLICATION NOTE:

Use chart above to select model to meet desired surge level. Pulse not to exceed peak V & j ratings (derate 30% for **Opt. X**), and average power during repetitive pulses NTE rated W. 30% safety factor is recommended for infrequent pulses, 50% typ. for repetitive pulses (request Note R42 for derating factors attributable to pulse width, rep. rate, temperature, altitude, humidity). Verify by evaluating under worst-case conditions. Depending on specifics, PR series can often satisfy the surge requirements of UL-217, -268, -294, -497, -508, -913, -943, -991, -1459, -1971, ANSI/IEEE C62.41, CCITT (Rec. K17), Bellcore/Telcordia TR-NWT-001089 & TR-TSY-000057, CSA C22.2-225, IEC 664, IEC 801.5, IEEE587, Can.Doc. CS-03, FCC Part 68, etc. Consult factory for assistance.

PART NUMBER DERIVATION



TYPICAL PERFORMANCE

Operating Temperature Range	-55°C to +150°C, +275°C available
Wattage Derating	1.25%/°C > 70°C 0.80%/°C > 25°C (Opt. B)
Max Inductance*	Opt. X ≤50Ω: 0.20μH (PRM1/8 - 1/2), 0.30μH (PRM1) Opt. X >50Ω: 0.37μH (PRM1/8 - 1/2), 0.60μH (PRM1)
Short-Time Overload	±0.50%
Temperature Cycling	±0.50%
TCR (20ppm avail)	±100ppm/°C (<0.20Ω = 200ppm)
Moisture Resistance	±1.0%
Shock and Vibration	±0.20%
Effect of Soldering	±0.20%
Voltage Coefficient	±0.005%/V
Load Life	±0.50% (Std), ±1.0% (Opt. B)
Dielectric Strength	500V (1KV avail)

* Specify **Opt. 75** for inductance levels 50% that of **Opt. X**, or **Opt. 76** for 33% that of **Opt. X**