

Specifications Per

- IEC 60115-1
- MIL-R-10509

Features

- Conformal multi-layer coating
- Low temperature coefficient and tolerances
- Excellent stability
- Superior power handling
- Products meet RoHS requirements and do not contain substances of very high concern identified by European Chemicals Agency

■ DIMENSIONS

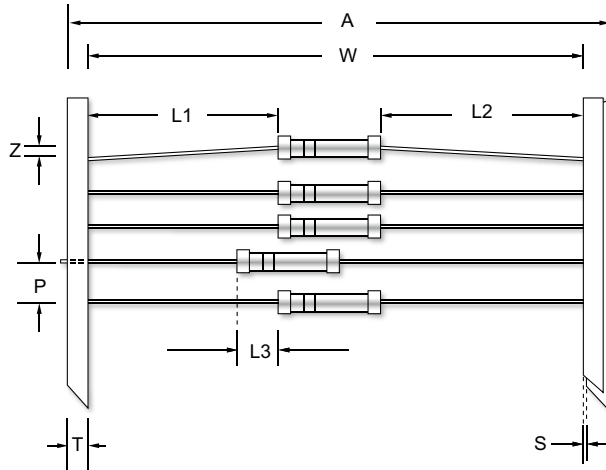
Type	Body Length (L, mm)	Body Diameter (D, mm)	Lead Wire Length (H, mm)	Lead Wire Diameter (d, mm)	Net Weight Per 1000 Pcs
PMA204	3.20 ± 1.0	1.9 ± 0.2	28 ± 3.0	0.45 ± 0.02	145 Grams
PMA204T	3.20 ± 1.0	1.9 ± 0.2	28 ± 3.0	0.45 ± 0.02	145 Grams
PMA25	6.50 ± 1.0	2.4 ± 0.2	26 ± 3.0	0.55 ± 0.03	220 Grams
PMA207	6.50 ± 1.0	2.4 ± 0.2	26 ± 3.0	0.55 ± 0.03	220 Grams
PMA70	9.00 ± 1.0	3.2 ± 0.2	26 ± 3.0	0.60 ± 0.03	340 Grams
PMA100	11.0 ± 1.0	4.5 ± 0.5	26 ± 3.0	0.70 ± 0.03	600 Grams
PMA120	15.5 ± 1.0	5.5 ± 0.5	26 ± 3.0	0.80 ± 0.03	1200 Grams

■ GENERAL SPECIFICATIONS

Type	Power Rating (at 70°C)	Maximum Working Voltage	Maximum Overload Voltage	Minimum Resistance	Maximum Resistance	Resistance Tolerance	Available Resistance Values
PMA204	0.4W	250V	500V	10Ω	1MΩ	±0.1~5%	E-24~192
PMA204T	0.5W	250V	500V	10Ω	330KΩ	±0.1~5%	E-24~192
PMA25	0.25W	350V	600V	10Ω	1MΩ	±0.1~5%	E-24~192
PMA207	0.6W	350V	600V	1Ω	4.7MΩ	±0.1~5%	E-24~192
PMA70	0.7W	350V	600V	10Ω	1MΩ	±0.1~5%	E-24~192
PMA100	1.0W	500V	1000V	10Ω	1MΩ	±0.1~5%	E-24~192
PMA120	1.2W	600V	1000V	10Ω	1MΩ	±0.1~5%	E-24~192

Special sizes, values, and specifications not listed available on special order.

■ TAPING/PACKING SPECIFICATIONS

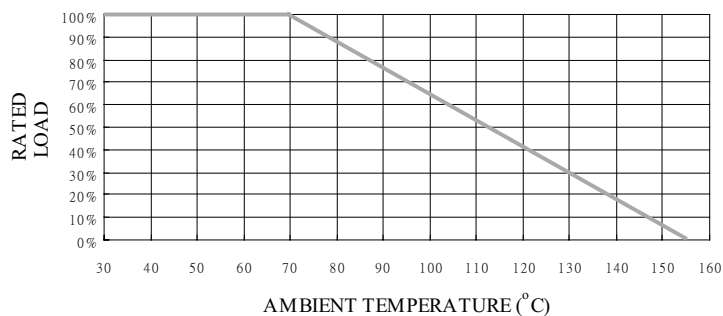


Unit (mm)

Type	A (Max.)	L1-L2 (Max.)	L3 (Max.)	P ±0.5	S (Max.)	T ±0.5	W ±1.5	Z (Max.)
PMA204	65	±1.0	0.5	5.0	0.8	6.0	52.5	1.2
PMA204T	65	±1.0	0.5	5.0	0.8	6.0	52.5	1.2
PMA25	65	±1.0	0.5	5.0	0.8	6.0	52.5	1.2
PMA207	65	±1.0	0.5	5.0	0.8	6.0	52.5	1.2
PMA70	65	±1.0	0.5	5.0	0.8	6.0	52.5	1.2
PMA100	65	±1.0	0.5	5.0	0.8	6.0	52.5	1.2
PMA120	76	±1.5	1.0	10.0	0.8	6.0	63.5	1.2

Type	Packing Type	PMA204	PMA204T	PMA25	PMA207	PMA70	PMA100	PMA120
Minimum Packing QTY (pcs)	Ammo pack	5000	5000	5000	5000	2000	1000	500

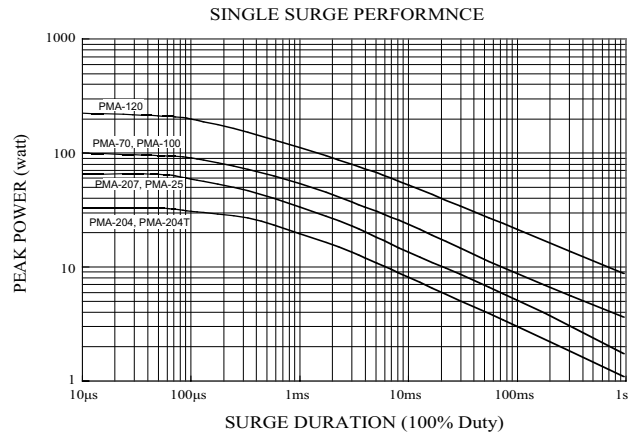
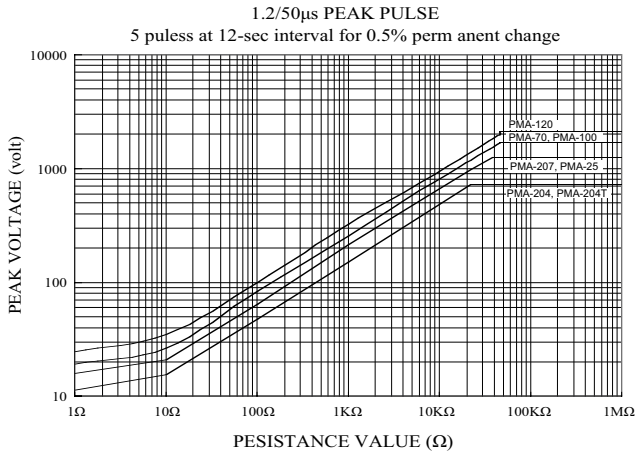
■ POWER DERATING CURVE



Quality • Reliability
Cost-Down via Innovation

PMA

■ SURGE PERFORMANCE



■ PART NUMBER

Example: PMA204B10K0TKQTB5K0

PMA204	B	10K0	TKQ	TB5K0
Type	Tolerance*	Resistance	TCR*	Packaging
	B (0.1%) C (0.25%) D (0.5%) F (1%) G (2%) J (5%)	10KΩ 4-character code containing - 3 significant digits 1 letter multiplier <u>OHM MULTIPLIER</u> R = 1 K = 10 ³ M = 10 ⁶ G = 10 ⁹	25ppm 3-character code TKP = ± 15 ppm TKQ = ± 25 ppm TKR = ± 50 ppm TKS = ± 100 ppm	5-character code TB = Tape Box (pieces per box) <u>PM204/PMA204T/</u> <u>PMA25/PMA207</u> 5K0 = 5,000 <u>PMA70</u> 2K0 = 2,000 <u>PMA100</u> 1K0 = 1,000 <u>PMA120</u> 500 = 500

* Listed values may not be applicable across product types or to all resistance values. Please check with us before placing order.

TECHNICAL SUMMARY

Characteristics	Limits				
	PMA204 PMA204T	PMA25 PMA207	PMA70	PMA100	PMA120
Dielectric Withstanding Voltage, VAC	300	500	700	700	700
Thermal Resistance, K/W	<170	<145	<120	<95	<75
Axial Terminal Strength, N	>30	>45	>60	>70	>70
Temperature Coefficient, PPM / °C*	±15, ±20, ±25, ±50, ±100				
Operating Temperature Range, °C	-55 ~ +155				
Insulation Resistance, MΩ	>10 ⁵				
Failure Rate	<1 pcs / 10 ⁹ Device Hours				

* Not applicable to all resistance values. Please check with us regarding the PPM of specific resistance value(s).

PERFORMANCE SPECIFICATIONS

Characteristics	Test Conditions	Limits
Short Time Over Load	IEC 60115-1 4.13 6.25 times of rated power 2 seconds for PMA204 & 204T, 5 seconds for other sizes	±0.5%
Load Life In Humidity	IEC 60115-1 4.24 56 days rated load (not over max. working voltage) at (40±2)°C and (93±3)% relative humidity	±1%
Load Life	IEC 60115-1 4.25.1 Rated load (not over max. working voltage) 1,000 hours with 1.5 hours ON, 0.5 hours OFF, at (70±2)°C	±1%
Resistance To Soldering Heat	IEC 60115-1 4.18.2 Leads immersed till 3mm from the body in (260±5)°C solder for 10±1 seconds	±0.5%
Solderability	IEC 60115-1 4.17.2 Solder area covered after (235±3)°C/(2±0.2) seconds with flux applied	95% min.coverage
Vibration	IEC 60115-1 4.22 Six hours in each parallel and axial direction with a simple harmonic motion having an amplitude of 0.75mm and 10 to 500 Hz.	±0.5%
Thermal Endurance	IEC 60115-1 4.25.3 1000 hours at 155°C without load	±0.5%
Thermal Shock	IEC 60115-1 4.19 -55°C 30minutes, +155°C 30minutes, 5 cycles	±0.5%