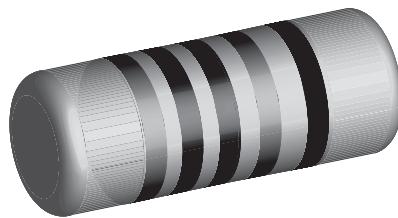


Metal Film, Cylindrical Resistors



FEATURES

- Stable metal film on high quality ceramic
- Very low TC and tight tolerances
- Excellent stability at different environmental conditions
- Force fitted steel caps, tin plated on nickel barrier

STANDARD ELECTRICAL SPECIFICATIONS

MODEL	POWER RATING $P_{70^\circ\text{C}}^{1)}$ W	LIMITING ELEMENT VOLTAGE MAX ²⁾ V_{max}	TEMPERATURE COEFFICIENT ppm/K	TOLERANCE %	RESISTANCE RANGE Ω	E-SERIES
PMM0204	0.125	100	5	0.1, 0.25	100R - 100K	96 - 192
PMM0204	0.125	100	10	0.1, 0.25	100R - 221K	96 - 192
PMM0204	0.125	100	15	0.1, 0.25	100R - 221K	96 - 192
PMM0204	0.125	100	25	0.1, 0.25	100R - 221K	96 - 192
PMM0204	0.125	100	50	0.1, 0.25	100R - 221K	96 - 192

¹⁾ Power rating depends on the maximum temperature at the solder point, the component placement density and the substrate material

- Coating: green
- Without TC-band
- Marking :see appropriate catalog or web page

²⁾ Rated voltage: \sqrt{PxR}

• TC $\leq 10 \text{ ppm}/^\circ\text{C}$: temperature range is - 10°C to + 85°C

TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	PMM0204
Rated Dissipation at 70°C	W	0.125
Limiting Element Voltage ²⁾	V_{max}	100
Insulation Voltage (1 min)	$V_{\text{dc/ac peak}}$	200
Thermal Resistance ³⁾	K/W	≤ 220
Insulation Resistance	Ω	$\geq 10^{10}$
Category Temperature Range	°C	- 10 / + 100
Failure Rate	$10^{-9} / \text{h}$	< 1
Weight / 1000pcs	g	18

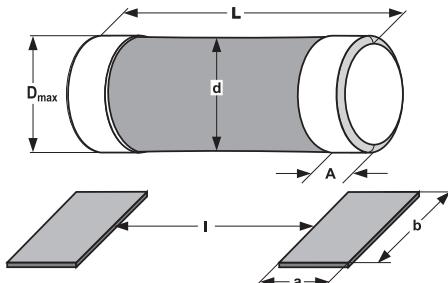
²⁾ Rated voltage: \sqrt{PxR}

³⁾ Based on measurements on test board acc. to EN 140000

PACKAGING: see SMM0204

ORDERING INFORMATION

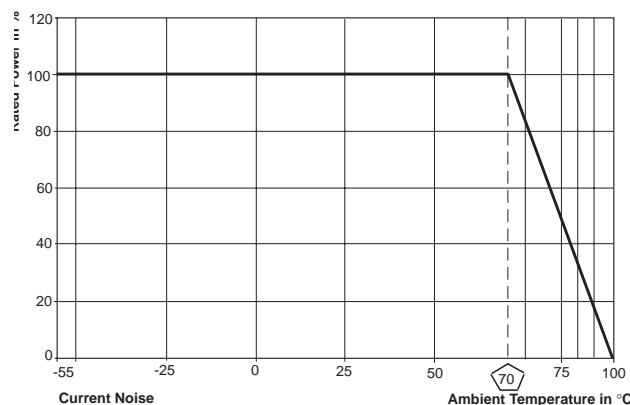
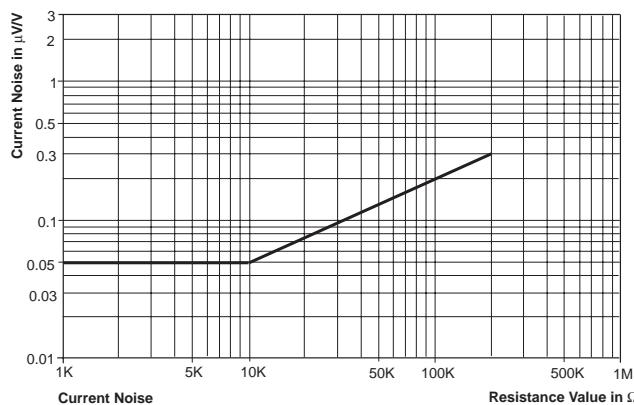
PMM0204 MODEL	25 TC ppm / K	562R RESISTANCE VALUE Ω	0.1% TOLERANCE $\pm \text{ %}$	B1 PACKAGING B1-Blistertape 1000 pcs

DIMENSIONS

MODEL	DIMENSIONS [in millimeters]				
	D _{max}	d *	L	A _{max}	A _{min}
PMM0204	1.4	D -0.15	3.6 - 0.15	0.85	0.5

*d measured in the middle of the resistor

MODEL	SOLDER PAD DIMENSIONS [in millimeters]					
	REFLOW SOLDERING			WAVE SOLDERING		
	a	b	l	a	b	l
PMM0204	1.0	1.6	2.2	1.2	1.6	2.2

**PERFORMANCE**

TEST	CONDITIONS OF TEST	TEST RESULTS
Endurance Test at 70°C IEC 60115-1 4.25.1	1000 hours at 70°C, 1.5 hours "ON", 0.5 hours "OFF"	≤ ± 0.1%
Endurance at UCT IEC 60115-1 4.25.3	1000 hours at 125°C without load	≤ ± 0.1%
Overload Test IEC 60115-1 4.13	Short time overload for 2 seconds 2.5 x rated voltage or ≤ 2 x limiting element voltage	≤ ± 0.02%
Thermal Shock IEC 60115-1 4.19 IEC 60068-2-14	Rapid change between upper and lower category temperature	≤ ± 0.02%
Damp Heat Steady State IEC 60115-1 4.24 IEC 60068-2-3	56 days at 40°C and 93% relative humidity	≤ ± 0.2%
Resistance to Soldering Heat IEC 60115-1 4.18 IEC 60068-2-20	10 seconds at 260°C solder bath temperature	≤ ± 0.05%

APPLICABLE SPECIFICATIONS

- CECC40000 / 40400 / 40401-803
- EN140400 / IEC 60115 – 1