SMC-SERIES

PRECISION MELF RESISTOR

PRECISION RESISTIVE PRODUCTS, INC.
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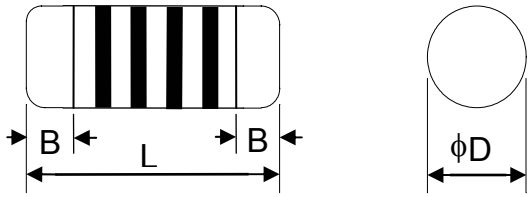
- **Thin Film Technology**
- **Wide Ohmic Range 0.1R – 10M**
- **Precision Tolerances 0.1% to 5%**
- **Standard EIA Values E-24, E-96 & E-192**
- **Multi-Layer Conformal Coating**
- **Tin Plated Termination on Nickel barrier**
- **Standard Metric Sizes 0204 & 0207**
- **Applications: Medical & Industrial, Test and Measurement, Military, Automotive, Telecommunication**
- **Lead Free & RoHS Compliant**
- **TCR ±10 to ±100 ppm/°C**
- **Packaging is Tape & Reel 3000 pcs – SMC0204 2000 pcs – SMC0207**



Dimensions (mm)

Style	L	ϕ D	B
SMC0204	3.45 ±0.1	1.35 ±0.1	0.6
SMC0207	5.9 ±0.1	2.2 ±0.1	1.2

Specifications

Style	Power Rating @ 70°C		Working Voltage (max.)	Resistance Range	Resistance Tolerance @ 25°C	T.C.R. PPM/°C
SMC0204	.25 W .5W	V U	200V 300V	0.1Ω ~ 10MΩ	1%, 5%	50, 100
				1Ω ~ 1MΩ	0.5%, 1%, 5%	50
				50Ω ~ 200KΩ	0.1%, 0.25%, 0.5%, 1%	10, 15, 25, 50
SMC0207	.5 W 1W	U T	300V 500V	0.1Ω ~ 10MΩ	1%, 5%	50, 100
				1Ω ~ 1MΩ	0.5%, 1%, 5%	50
				50Ω ~ 200KΩ	0.1%, 0.25%, 0.5%, 1%	10, 15, 25, 50
				200KΩ ~ 300KΩ		15, 25, 50

Operating Temperature Range –55°C to + 155°C

How to Order

Sample Part Number

SMC0204 TC25 10K 1% U

- **U** – **Power Rating**
- **1%** – **Resistance Tolerance**
- **10K** – **Resistance Value**
- **TC25** – **Temperature Coefficient**
- **SMC0204** – **Style**

DEDICATION TO EXCELLENCE

Performance Specifications

Test Item		Allowable Limits			Test Method
		0.25%	0.50%	0.50%	
Stability for Product Types	SMC0204	50Ω ~ 220KΩ	10Ω ~ 50Ω	>220KΩ	
	SMC0207	50Ω ~ 1MΩ	10Ω ~ 50Ω	>1MΩ	
Short Time Overload		ΔR ±0.1% No visible damage			**JIS-C-5202-5.5** RCWV*2.5 or Max Overload Voltage, 5sec.
Temperature Cycle		ΔR ±0.1%	ΔR ±0.25%	ΔR ±0.1%	**MIL-STD-202F Method 107G** -55°C~150°C, 100 cycles
		No visible damage			
Load Life		ΔR ±0.25%	ΔR ±0.25%	ΔR ±0.50%	**MIL-STD-202F Method 108A** RCWV, 70°C, 1.5 hours ON, 0.5 hours OFF, total 1000~1048 hours
Humidity		ΔR ±0.25%	ΔR ±0.50%	ΔR ±0.50%	**MIL-STD-202F Method 103B** 40°C, 90~95% RH, RCWV 1.5 hours ON, 0.5 hours OFF, total 1000~1048 hours
		No visible damage			
Resistance to Dry Heat		ΔR ±0.50%	ΔR ±1.00%	ΔR ±1.00%	**JIS-C-5202-7.2** 96 hours @ +155°C without load
Low Temperature Operation		ΔR ±0.25%	ΔR ±0.50%	ΔR ±0.50%	**JIS-C-5202-7.1** 1 hour, -65°C, followed by 45 minutes of RCWV
		No visible damage			
Solderability		95% minimum coverage			**MIL-STD-202F Method 208H** 245°C ±5°C, 2 ±0.5 sec.
Resistance to Soldering Heat		ΔR ±0.10%	ΔR ±0.25%	ΔR ±0.10%	**MIL-STD-202F Method 210E** 260°C ±5°C, 10 ±1 sec.
		No visible damage			