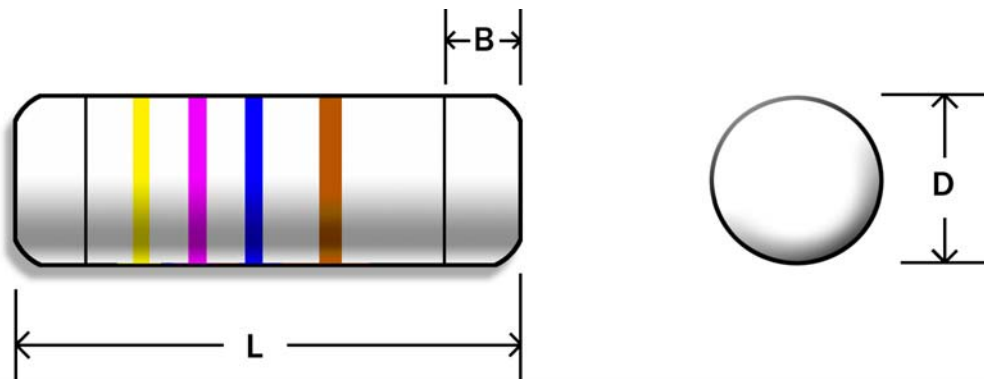


## High Power

# SRM - Surge Resistant MELF Resistor

### Features:

Miniaturized MELF design handles high power. Special conductive film enhances anti-surge capability. Absorbs harmful surge which damages precious devices or components. Can be considered a SMD-type carbon composition resistor.



### Dimensions

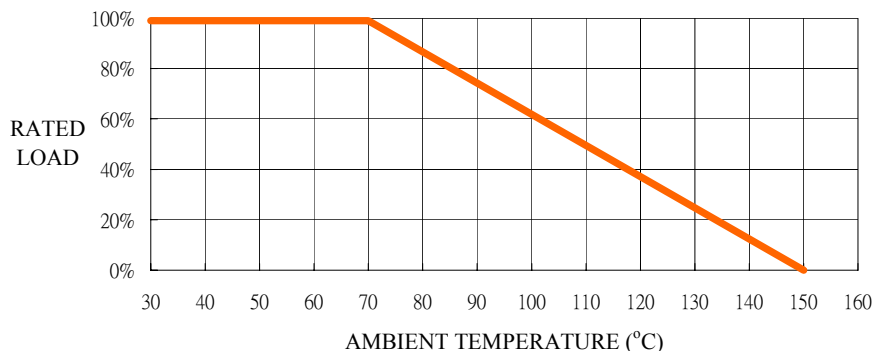
Type	Body Length (L)	Body Diameter (D)	Soldering Spot (B)	Net Weight Per 1000 pcs
SRM204T	3.45 ± 0.1mm	1.35 ± 0.1mm	0.6mm Min.	17 grams
SRM207T	5.90 ± 0.2 mm	2.20 ± 0.1mm	1.0mm Min.	66 grams

### General Specifications

Type	Power Rating (at 70°C)	Max. Working Voltage	Max. Permissible Surge Voltage	Resistance Range Min.	Resistance Range Max.	Resistance Tolerance	Standard Resistance Value
SRM204T	1/2W	200V	4000V	1Ω	10KΩ	±5%	E-24
						±1%	E-96
SRM207T	1W	300V	8000V	0.1Ω	10KΩ	±5%	E-24
						±1%	E-96

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

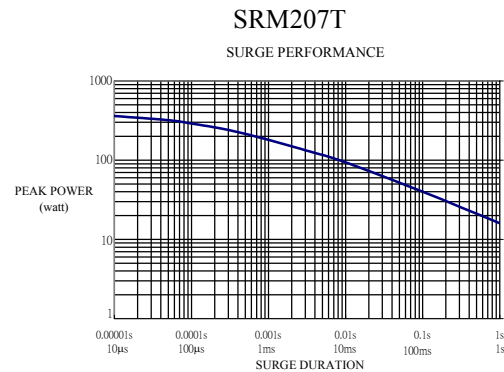
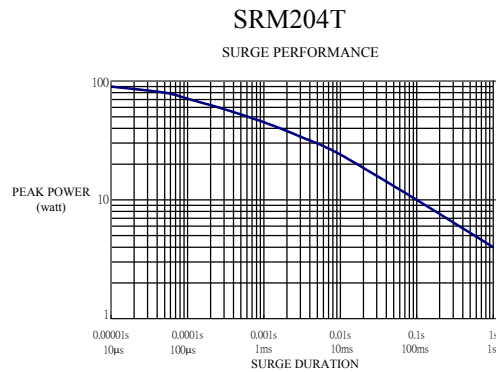
POWER DERATING CURVE



Nov. 28, 2000

## High Power

# SRM - Surge Resistant MELF Resistor



### Technical Summary:

Characteristics	Limits	
Dielectric Withstanding Voltage, V AC or DC	SRM204T:	300
	SRM207T:	350
Temperature Coefficient, PPM/°C	±100	
Operating Temperature Range, °C	-55 ~ +150	
Insulation Resistance, MΩ	>10 <sup>4</sup>	
Power Derating, Linear	100% at 70°C, down to zero at 150°C	

### Performance Specifications

Tests Characteristics	Test Conditions	Limits	
Short Time Overload	IEC 60115-1 4.13 2 seconds 2.5x rated voltage (not over max. overload voltage)	±(2%+0.05R)	
Load Life In Humidity	IEC 60115-1 4.24 56 days at 40°C and 93% relative humidity	±(5%+0.05R)	
Load Life 1,000 hours	IEC 60115-1 4.25.1 Rated load 1.5 hours ON, 0.5 hours OFF, at 70°C	±(5%+0.05R)	
Resistance To Soldering Heat	IEC 60115-1 4.18 10 seconds at 260°C solder bath temperature	±(1%+0.05R)	
Solderability	MIL-STD-202 Method 208 Solder area covered after 230±5°C/5±0.5 seconds w/ flux applied	95% Min.	
Vibration	IEC 60115-1 4.22 Six hours in each parallel and axial direction w/ a simple harmonic motion having an amplitude of 0.75mm and 10 to 500 Hz.	±(1%+0.05R)	
Terminal Strength	IEC 60115-1 4.25.3 1000 hours at 150°C without load	±(1%+0.05R)	
Thermal Shock	IEC 60115-1 4.19 -55°C 30minutes, +150°C 30minutes, 5 cycles	±(1%+0.05R)	
Surge Test	Surge voltage = $\sqrt{6000 \times P \times R}$ DC <i>P is power rating, R is resistance value, surge voltage is not more than listed at right</i> Surge spec = 1.2/50µs Period = 1 sec Number of surges = 50	1/2W: 4KV 1W: 8KV	±5%

### Ordering Information

Type	Tolerance	Resistance Value	Packaging	Special Request (Optional)
SRM204T	F (1%) J (5%)	10K	TR (Tape/Reel)	LV (Low value)

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