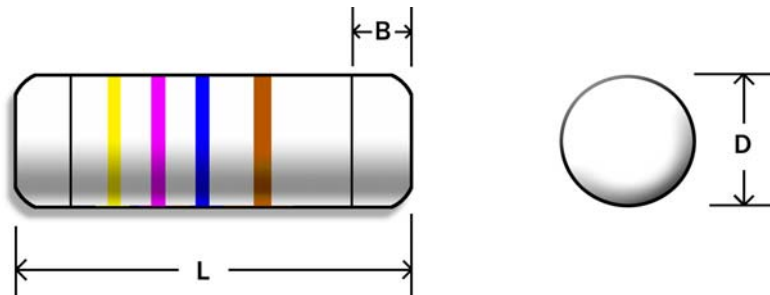


SRM - Surge Resistant MELF Resistor

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 Min. (B)	Net Weight Per 1000 pcs
SRM204	3.45 ± 0.1 mm	1.35 ± 0.1 mm	0.6 mm	20 grams
SRM207	5.90 ± 0.2 mm	2.20 ± 0.1 mm	1.0 mm	66 grams
SRM101	5.90 ± 0.2 mm	2.20 ± 0.1 mm	1.0 mm	66 grams
SRM201	8.50 ± 1.0 mm	3.00 ± 0.2 mm	1.3 mm	186 grams
SRM301	10.5 ± 1.0 mm	4.00 ± 0.5 mm	1.6 mm	446 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
SRM204	1/4W	250V	2000V	1Ω	1MΩ	±5%	E-24
SRM207	1/2W	250V	6000V	1Ω	1MΩ	±5%	E-24
						±2%	
SRM101	1W	300V	8000 V	0.1Ω	100KΩ	±5%	E-24
						±1%	E-96
SRM201	2W	350V	9000V	0.1Ω	120KΩ	±5%	E-24
						±1%	E-96
SRM301	3W	400V	10,000V	0.1Ω	150KΩ	±5%	E-24
						±1%	E-96

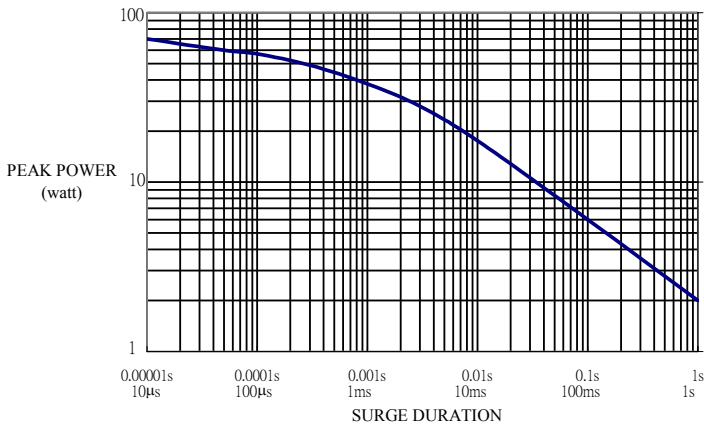
Special sizes, values, and specifications not listed available on special order.

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SRM - Surge Resistant MELF Resistor

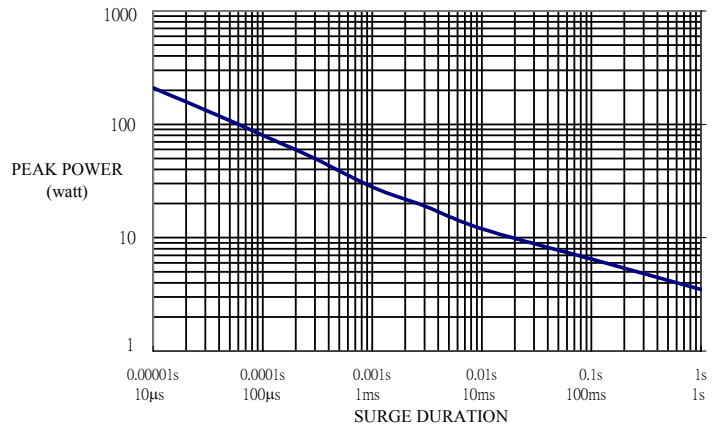
SRM204

SURGE PERFORMANCE



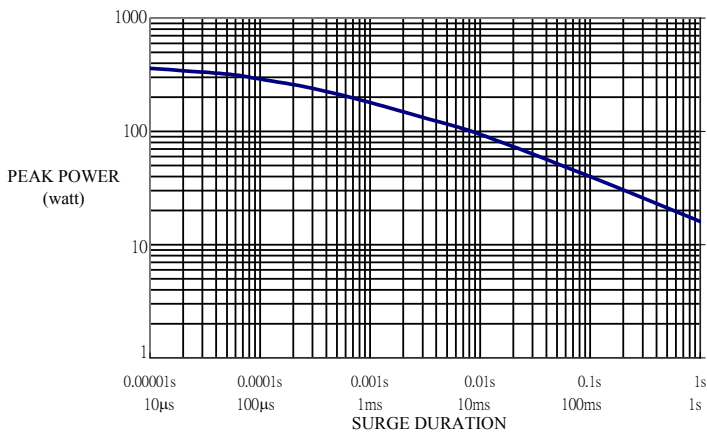
SRM207

SURGE PERFORMANCE



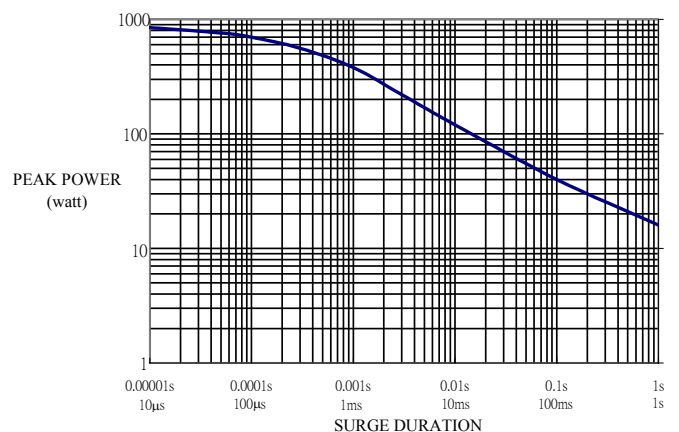
SRM101

SURGE PERFORMANCE



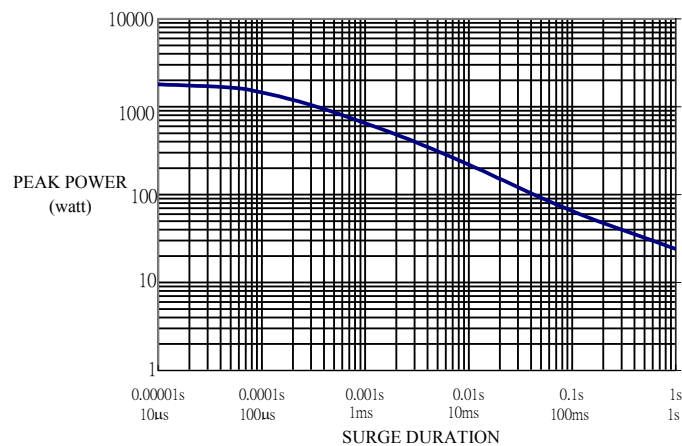
SRM201

SURGE PERFORMANCE



SRM301

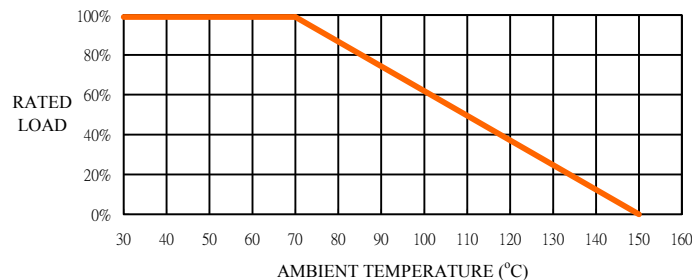
SURGE PERFORMANCE



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SRM - Surge Resistant MELF Resistor

POWER DERATING CURVE



Technical Summary:

Characteristics	Limits	
Dielectric Withstanding Voltage, VAC or DC	1/4W, 1/2W, 1W 2W 3W	350 500 800
Temperature Coefficient, PPM /°C	1/4W to 1/2W 1W to 3W	±300 ±100
Operating Temperature Range, °C	-55 ~ +150	
Insulation Resistance, MΩ	>10 ⁴	

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 60015-1 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 Endurance	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	<table border="1"> <tr><td>1/2W 2KV</td><td rowspan="5">±5%</td></tr> <tr><td>1/4W 6KV</td></tr> <tr><td>1W 8KV</td></tr> <tr><td>2W 9KV</td></tr> <tr><td>3W 10KV</td></tr> </table>	1/2W 2KV	±5%	1/4W 6KV	1W 8KV	2W 9KV	3W 10KV
1/2W 2KV	±5%							
1/4W 6KV								
1W 8KV								
2W 9KV								
3W 10KV								

Ordering Information

Type	Tolerance	Resistance Value	Packaging	Special Request (Optional)
SRM101	F (1%), G (2%) J (5%)	10K	TR (Tape/Reel)	LV (Low value)

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