

High Power Dissipation SMT Chip Resistor

SC3 Series

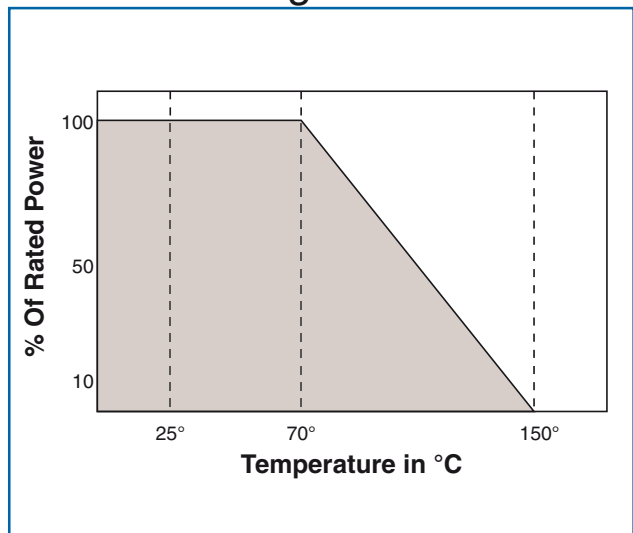
- Tolerances to $\pm 1\%$
- 3 watt rating at 70°C
- Resistance range from 1 to 100K Ω
- Standard Sn/Pb and matte tin (Pb-free) terminations available



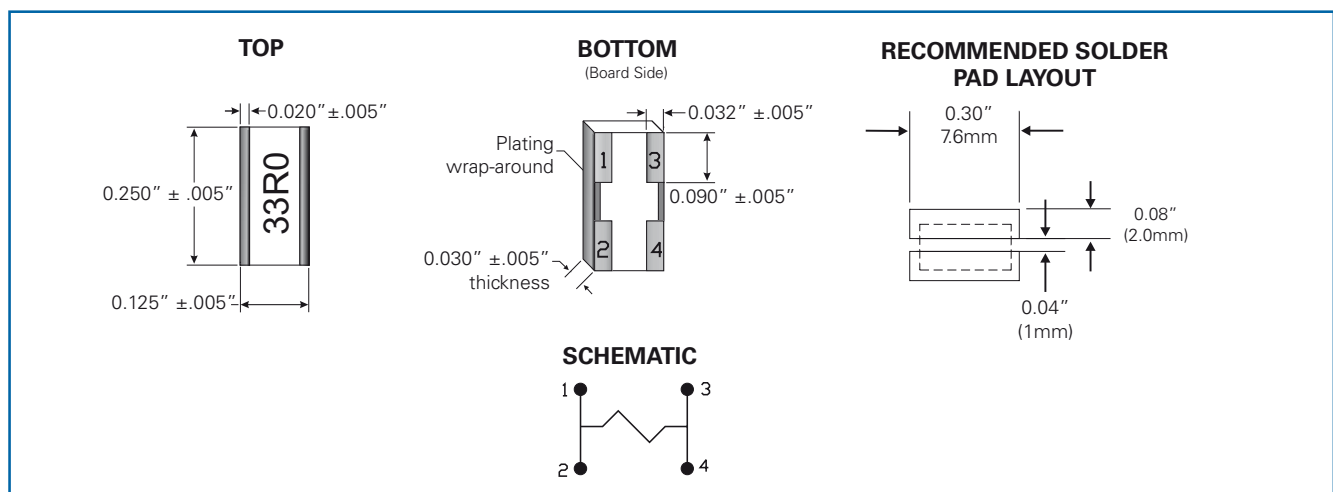
Electrical Data

Resistance Range	1 Ω to 100K Ω
Resistance Tolerance	$\pm 1\%$, $\pm 2\%$, $\pm 5\%$
Temperature Coefficient	± 100 ppm/ $^{\circ}\text{C}$
Power Dissipation	3.0 Watts* @ 70°C
Maximum Voltage Rating (not to exceed $\sqrt{P \times R}$)	100 Volts
Operating Temperature Range	-55°C to +150°C
Termination	Leach-resistant nickel barrier under solder-plated wrap-around
*Note: With 1" square copper area as heat spreader.	

Power Derating Chart



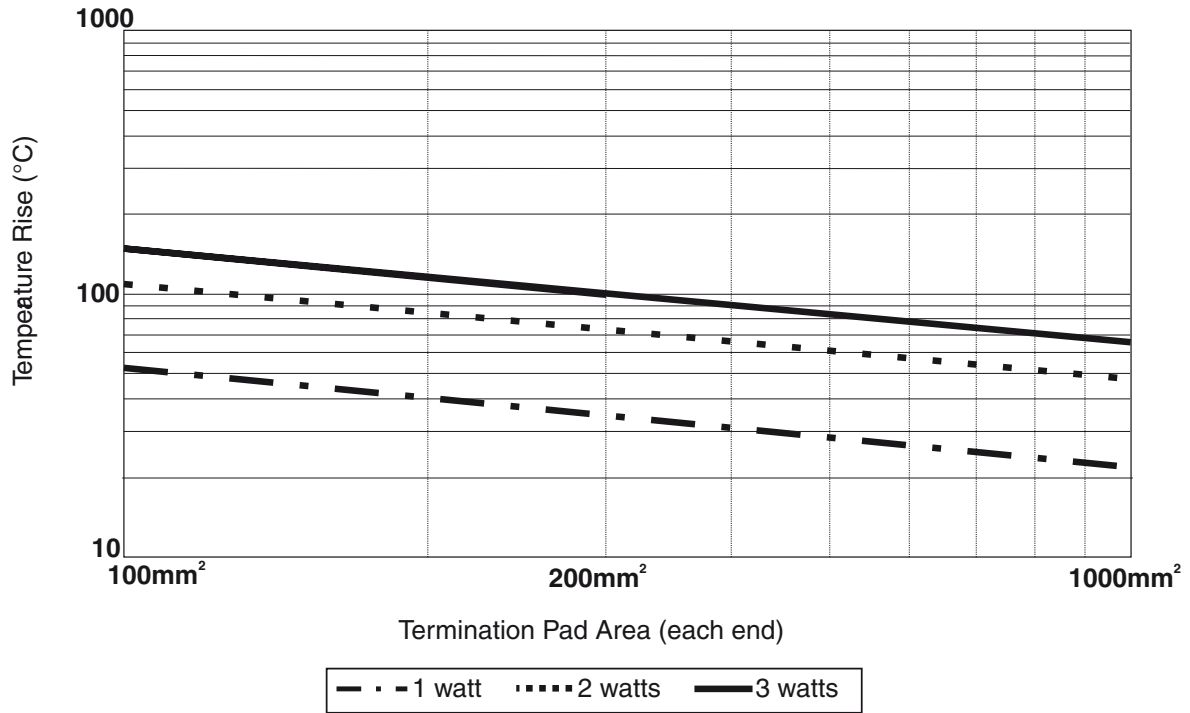
Physical Data



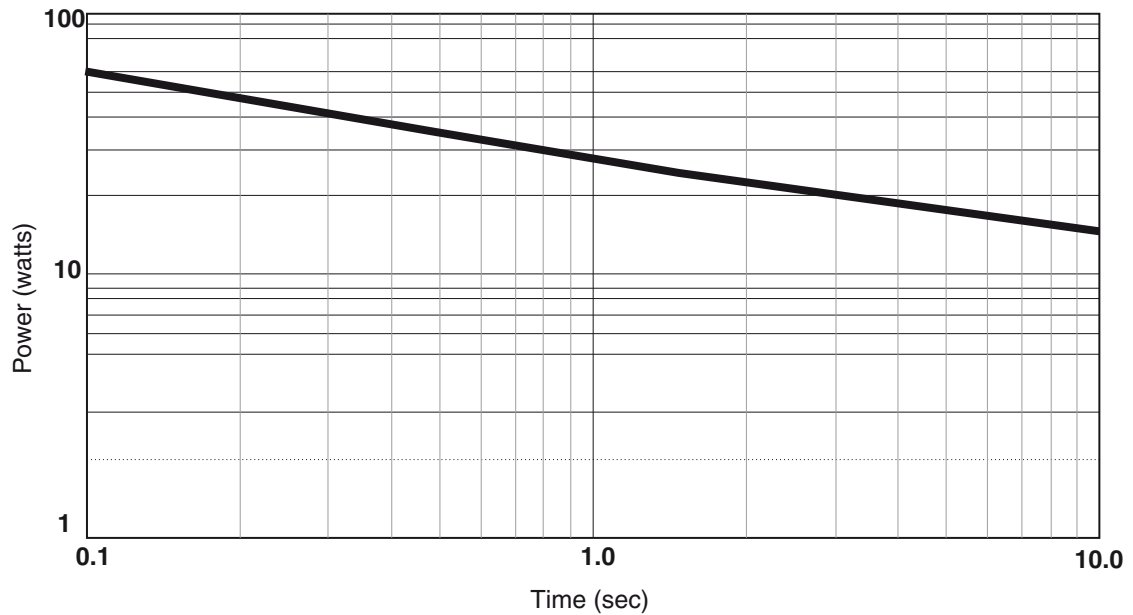
General Note

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Temperature Rise vs Pad Area



Pulse Power Rating



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Environmental Data

Environmental Test	Test Method	Specification
Thermal Shock	MIL-STD-202 Method 107 Condition B, -65°C + 125°C	$\Delta R \pm 0.5\% + 0.01\Omega$
Short-time Overload	2x rated power for 5 seconds	$\Delta R \pm 0.5\% + 0.01\Omega$
High Temperature Exposure	100 Hours, 150°C	$\Delta R \pm 0.5\% + 0.01\Omega$
Moisture Resistance	MIL-STD-202 Method 106	$\Delta R \pm 0.5\% + 0.01\Omega$
Load Life	Rated Power @ 70°C for 1000 hours; 1.5 hours 'on', 0.5 hours 'off'	$\Delta R \pm 1.0\% + 0.01\Omega$
Low Temperature Operation	1 hour @ -65°C followed by Rated power for 45 minutes	$\Delta R \pm 0.5\% + 0.01\Omega$
Resistance To Solder Heat	MIL-STD-202 Method 210 260°C, 5 seconds	$\Delta R \pm 0.25\% + 0.01\Omega$
Solderability	MIL-STD-202 Method 208 245°C, 5 seconds	95% coverage

Ordering Data

Prefix SCW - SC3LF - 33R0 - F

Model

SC3 = 3 watt chip with standard Sn/Pb termination
SC3LF = 3 watt chip with matte tin (Pb-free) termination

Resistance Code

Standard 4-digit resistance code
Example: 33R0 = 33 Ω ; 10K0 = 10,000 Ω

Resistance Tolerance Code

J = $\pm 5\%$; G = $\pm 2\%$; F = $\pm 1\%$

Packaging

Available in both bulk and tape & reel.

For additional information or to discuss your specific requirements,
please contact our Applications Team using the contact details below.

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