

# High Power Dissipation SMT Chip Resistor

## SC3 Series

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

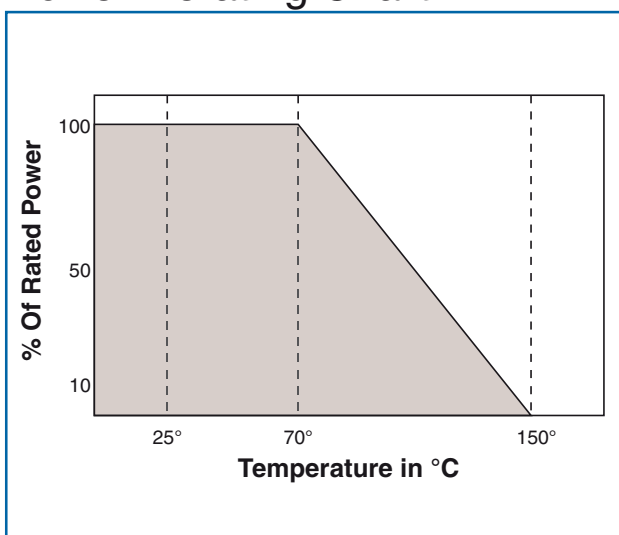


## Electrical Data

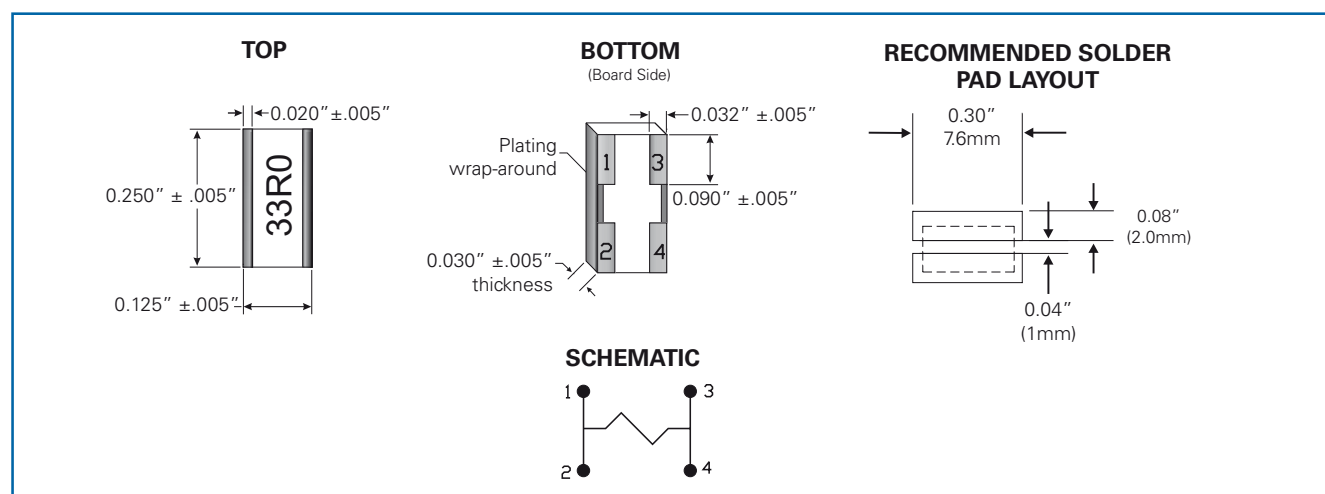
<b>Resistance Range</b>	1 $\Omega$ to 100K $\Omega$
<b>Resistance Tolerance</b>	$\pm 1\%$ , $\pm 2\%$ , $\pm 5\%$
<b>Temperature Coefficient</b>	$\pm 100$ ppm/ $^{\circ}\text{C}$
<b>Power Dissipation</b>	3.0 Watts* @ 70°C
<b>Maximum Voltage Rating (not to exceed <math>\sqrt{P \times R}</math>)</b>	100 Volts
<b>Operating Temperature Range</b>	-55°C to +150°C
<b>Termination</b>	Leach-resistant nickel barrier under solder-plated wrap-around

\*Note: With 1" square copper area as heat spreader.

## Power Derating Chart



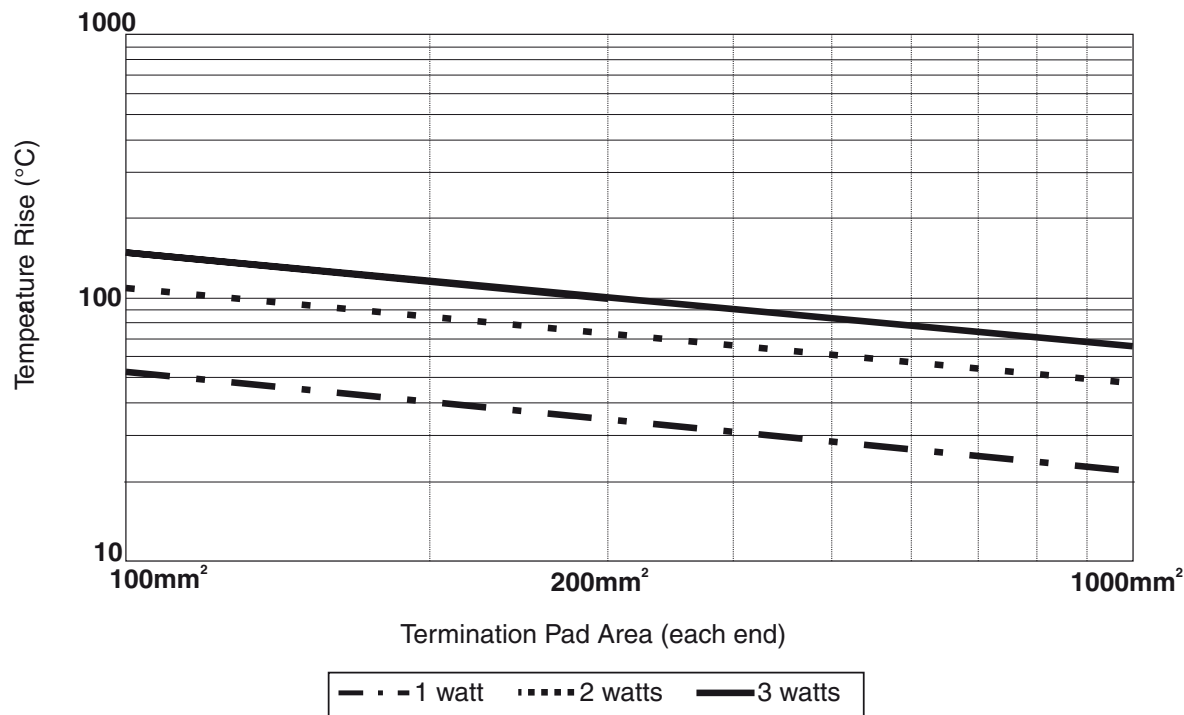
## Physical Data



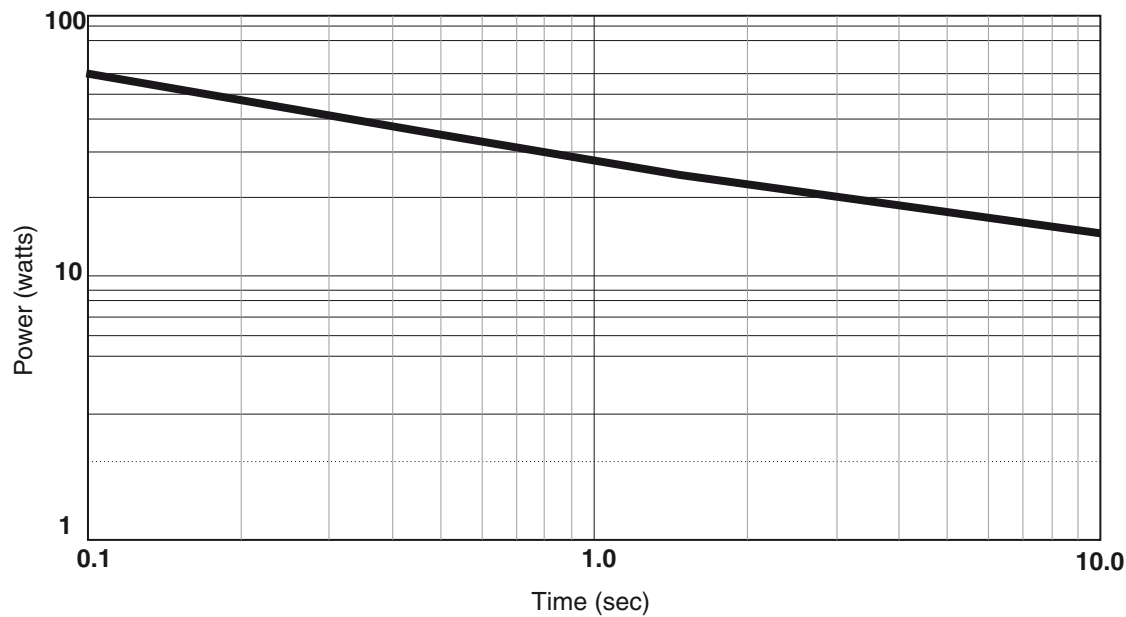
### General Note

TT electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT electronics' own data and is considered accurate at time of going to print.

## Temperature Rise vs Pad Area



## Pulse Power Rating



### General Note

TT electronics reserves the right to make changes in product specification without notice or liability.  
All information is subject to TT electronics' own data and is considered accurate at time of going to print.

## 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 = 33Ω; 10K0 = 10,000Ω

### Resistance Tolerance Code

J = ±5%; G = ±2%; F = ±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.

### General Note

TT electronics reserves the right to make changes in product specification without notice or liability.  
All information is subject to TT electronics' own data and is considered accurate at time of going to print.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## TT Electronics:

[SCW-SC3-232R-F](#) [SCW-SC3LF-150R-J](#) [SCW-SC3LF-180R-J](#) [SCW-SC3LF-1K43-F](#) [SCW-SC3LF-294R-F](#) [SCW-SC3LF-300R-J](#) [SCW-SC3LF-383R-F](#) [SCW-SC3LF-3K65-F](#) [SCW-SC3LF-422R-F](#) [SCW-SC3LF-510R-J](#) [SCW-SC3LF-549R-F](#) [SCW-SC3LF-5K76-F](#) [SCW-SC3LF-634R-F](#) [SCW-SC3LF-6K49-F](#) [SCW-SC3LF-6K65-F](#) [SCW-SC3LF-806R-F](#) [SCW-SC3LF-8K87-F](#) [SCW-SC3LF-1K00-F](#) [SCW-SC3LF-10K0-J](#) [SCW-SC3LF-120R-J](#) [SCW-SC3LF-162R-F](#) [SCW-SC3LF-1K00-J](#) [SCW-SC3LF-1K10-F](#) [SCW-SC3LF-1K33-F](#) [SCW-SC3LF-1K87-F](#) [SCW-SC3LF-200R-F](#) [SCW-SC3LF-210R-F](#) [SCW-SC3LF-267R-F](#) [SCW-SC3LF-270R-J](#) [SCW-SC3LF-2K15-F](#) [SCW-SC3LF-2K55-F](#) [SCW-SC3LF-2K70-J](#) [SCW-SC3LF-499R-F](#) [SCW-SC3LF-4K64-F](#) [SCW-SC3LF-5K62-F](#) [SCW-SC3LF-681R-F](#) [SCW-SC3LF-732R-F](#) [SCW-SC3LF-7K32-F](#) [SCW-SC3LF-8K66-F](#) [SCW-SC3LF-976R-F](#) [SCW-SC3LF-100R-J](#) [SCW-SC3LF-121R-F](#) [SCW-SC3LF-140R-F](#) [SCW-SC3LF-1K10-J](#) [SCW-SC3LF-1K47-F](#) [SCW-SC3LF-221R-F](#) [SCW-SC3LF-2K74-F](#) [SCW-SC3LF-340R-F](#) [SCW-SC3LF-3K74-F](#) [SCW-SC3LF-4K99-F](#) [SCW-SC3LF-562R-F](#) [SCW-SC3LF-6K98-F](#) [SCW-SC3LF-768R-F](#) [SCW-SC3LF-825R-F](#) [SCW-SC3LF-9K31-F](#) [SCW-SC3LF-9K53-F](#) [SCW-SC3LF-1K05-F](#) [SCW-SC3LF-1K50-J](#) [SCW-SC3LF-1K80-J](#) [SCW-SC3LF-237R-F](#) [SCW-SC3LF-2K05-F](#) [SCW-SC3LF-2K43-F](#) [SCW-SC3LF-360R-J](#) [SCW-SC3LF-3K30-J](#) [SCW-SC3LF-4K02-F](#) [SCW-SC3LF-4K70-J](#) [SCW-SC3LF-4K75-F](#) [SCW-SC3LF-5K49-F](#) [SCW-SC3LF-715R-F](#) [SCW-SC3LF-8K25-F](#) [SCW-SC3LF-953R-F](#) [SCW-SC3LF-127R-F](#) [SCW-SC3LF-169R-F](#) [SCW-SC3LF-1K40-F](#) [SCW-SC3LF-1K96-F](#) [SCW-SC3LF-243R-F](#) [SCW-SC3LF-249R-F](#) [SCW-SC3LF-2K67-F](#) [SCW-SC3LF-487R-F](#) [SCW-SC3LF-5K90-F](#) [SCW-SC3LF-750R-F](#) [SCW-SC3LF-7K50-J](#) [SCW-SC3LF-910R-J](#) [SCW-SC3LF-9K09-F](#) [SCW-SC3LF-100R-F](#) [SCW-SC3LF-102R-F](#) [SCW-SC3LF-137R-F](#) [SCW-SC3LF-196R-F](#) [SCW-SC3LF-1K62-F](#) [SCW-SC3LF-2K21-F](#) [SCW-SC3LF-390R-J](#) [SCW-SC3LF-3K57-F](#) [SCW-SC3LF-4K30-J](#) [SCW-SC3LF-536R-F](#) [SCW-SC3LF-5K10-J](#) [SCW-SC3LF-9K10-J](#) [SCW-SC3LF-147R-F](#) [SCW-SC3LF-1K24-F](#) [SCW-SC3LF-1K54-F](#) [SCW-SC3LF-2K40-J](#)