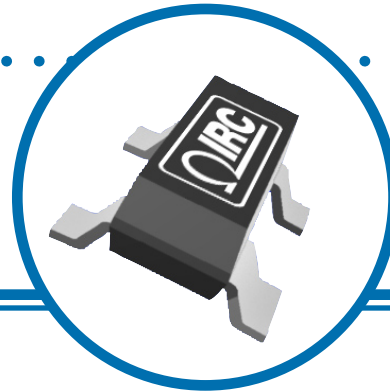


SOT143 Surface Mount Resistor Networks

SOT143 Series

- Ratio tolerances to $\pm 0.05\%$
- Standard and custom circuits available
- Extremely small industry standard package
- RoHS compliant and Sn/Pb terminations available



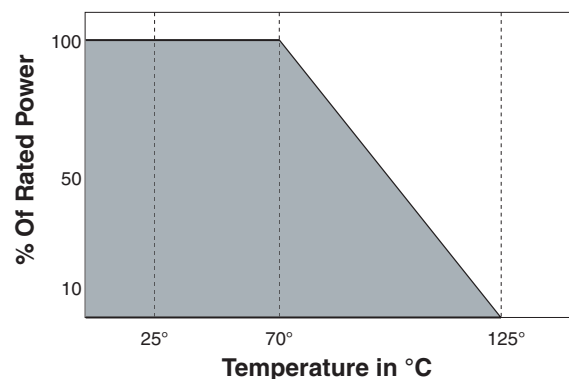
Electrical Data

Characteristic	Value
Absolute Tolerance	To $\pm 0.1\%$
Ratio Tolerance	To $\pm 0.05\%$
Absolute TCR	To $\pm 25\text{ppm}/^\circ\text{C}$
Tracking TCR	To $\pm 2\text{ppm}/^\circ\text{C}$
Package Power Rating (70°C)	250mW
Element Power Rating (70°C)	100mW
Rated Operating Voltage (not to exceed $\sqrt{\text{Power} \times \text{Resistance}}$)	100V
Operating Temperature Range	-55°C to $+125^\circ\text{C}$
Noise	$< -30\text{dB}$
Substrate Material	Silicon

Environmental Data

Test Per MIL-PRF-83401	Typical Delta R	Max Delta R
Thermal Shock	$\pm 0.02\%$	$\pm 0.1\%$
Power Conditioning	$\pm 0.03\%$	$\pm 0.1\%$
High Temperature Exposure	$\pm 0.03\%$	$\pm 0.05\%$
Short-time Overload	$\pm 0.02\%$	$\pm 0.05\%$
Low Temperature Storage	$\pm 0.03\%$	$\pm 0.05\%$
Life	$\pm 0.05\%$	$\pm 2\%$

Power Derating Curve



General Note

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

SOT143 Surface Mount Resistor Networks

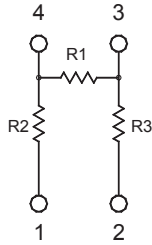


Schematic / Circuit Detail

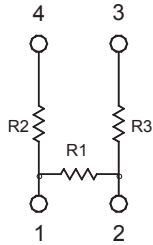
Schematic/ Circuit Code	R1 (Ω)	R2 (Ω)	R3 (Ω)	Available Absolute Tolerances	Available Ratio Tolerance	Available Absolute TCRs
A001	500.0	50.0K	50.0K	J, G, F	G, F, D, B	$\pm 100, \pm 50, \pm 25$
A002	10.0K	10.0K	10.0K	J, G, F, B	G, F, D, B, A	$\pm 100, \pm 50, \pm 25$
A003	900.0	100.0	9.0K	J, G, F, B	G, F, D, B	$\pm 100, \pm 50, \pm 25$
A004	500.0	48.0K	48.0K	J, G, F, B	G, F, D, B	$\pm 100, \pm 50, \pm 25$
A005	200.0	40.0K	40.0K	J, G, F	G, F, D, B	$\pm 100, \pm 50, \pm 25$
A006	2.5K	2.5K	2.5K	J, G, F, B	G, F, D, B, A	$\pm 100, \pm 50, \pm 25$
A007	200.0	900.0	900.0	J, G, F	G, F, D, B	$\pm 100, \pm 50, \pm 25$
A008	1.0K	500.0	500.0	J, G, F	G, F, D, B	$\pm 100, \pm 50, \pm 25$
A009	500.0	30.0K	30.0K	J, G, F	G, F, D, B	$\pm 100, \pm 50, \pm 25$
A010	400.0	25.0K	25.0K	J, G, F	G, F, D, B	$\pm 100, \pm 50, \pm 25$
B001	10.0K	10.0K	10.0K	J, G, F, B	G, F, D, B, A	$\pm 100, \pm 50, \pm 25$
B002	900.0	100.0	9.0K	J, G, F	G, F, D, B	$\pm 100, \pm 50, \pm 25$
B003	1.0K	10.0K	10.0K	J, G, F, B	G, F, D, B, A	$\pm 100, \pm 50, \pm 25$
C001	N/A	10.0K	10.0K	J, G, F, B	G, F, D, B, A	$\pm 100, \pm 50, \pm 25$
C002	N/A	1.0K	1.0K	J, G, F, B	G, F, D, B, A	$\pm 100, \pm 50, \pm 25$
C003	N/A	9.0K	1.0K	J, G, F, B	G, F, D, B, A	$\pm 100, \pm 50, \pm 25$
C004	N/A	750.0	750.0	J, G, F, B	G, F, D, B, A	$\pm 100, \pm 50, \pm 25$
C005	N/A	100K	100K	J, G, F, B	G, F, D, B, A	$\pm 100, \pm 50, \pm 25$
C006	N/A	33.0K	330.0	J, G, F	G, F, D, B	$\pm 100, \pm 50, \pm 25$
C007	N/A	2.0K	2.0K	J, G, F, B	G, F, D, B, A	$\pm 100, \pm 50, \pm 25$
C008	N/A	10.0K	2.0K	J, G, F, B	G, F, D, B, A	$\pm 100, \pm 50, \pm 25$
C009	N/A	10.0K	200.0	J, G, F	G, F, D, B	$\pm 100, \pm 50, \pm 25$
C010	N/A	2.1K	10.0K	J, G, F, B	G, F, D, B, A	$\pm 100, \pm 50, \pm 25$
C011	N/A	2.15K	10.0K	J, G, F, B	G, F, D, B, A	$\pm 100, \pm 50, \pm 25$
C012	N/A	10.0K	10.0K	J, G, F, B	G, F, D, B, A	$\pm 100, \pm 50, \pm 25$
C013	N/A	7.5K	7.5K	J, G, F, B	G, F, D, B, A	$\pm 100, \pm 50, \pm 25$
C014	N/A	500.0	500.0	J, G, F	G, F, D, B	$\pm 100, \pm 50, \pm 25$
C015	N/A	49.9K	49.9K	J, G, F, B	G, F, D, B, A	$\pm 100, \pm 50, \pm 25$
D001	121.0	1.33K	1.0K	J, G, F	G, F, D, B	$\pm 100, \pm 50, \pm 25$
D002	2.0K	1.0K	2.0K	J, G, F, B	G, F, D, B, A	$\pm 100, \pm 50, \pm 25$
D003	50.0K	5.0K	5.0K	J, G, F, B	G, F, D, B, A	$\pm 100, \pm 50, \pm 25$
D004	5.4K	5.4K	27.5K	J, G, F, B	G, F, D, B, A	$\pm 100, \pm 50, \pm 25$
D005	40.0K	40.0K	40.0K	J, G, F, B	G, F, D, B, A	$\pm 100, \pm 50, \pm 25$
D006	10.0K	10.0K	20.0K	J, G, F, B	G, F, D, B, A	$\pm 100, \pm 50, \pm 25$
D007	20.0K	20.0K	20.0K	J, G, F, B	G, F, D, B, A	$\pm 100, \pm 50, \pm 25$

SOT143 Surface Mount Resistor Networks

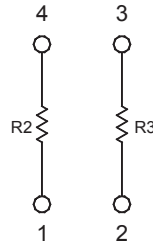
Schematic Data



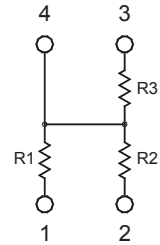
Schematic A (series)



Schematic B (series)

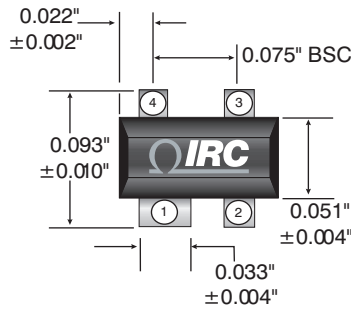
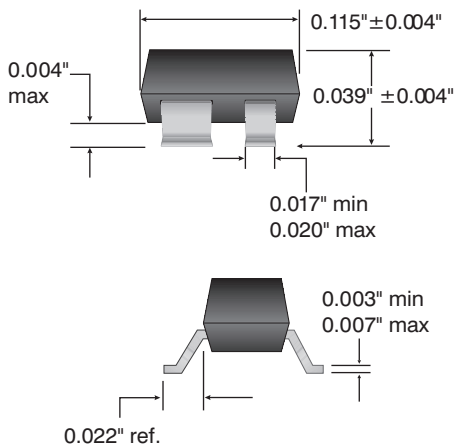


Schematic C (isolated)

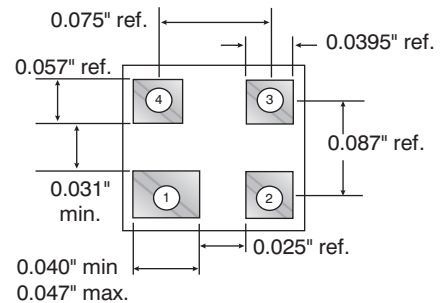


Schematic D (bussed)

Physical Data



RECOMMENDED PAD LAYOUT



Ordering Data

Prefix **SOT** - **SOT143** - **01** - **A** **002** - **F** **B**

Style
SOT143 = SOT143 with standard Sn/Pb termination
SOT143LF = SOT143 with 100% matte tin, Pb-free terminations

Absolute TCR Code
00 = $\pm 250 \text{ ppm}/^{\circ}\text{C}$; 01 = $\pm 100 \text{ ppm}/^{\circ}\text{C}$
02 = $\pm 50 \text{ ppm}/^{\circ}\text{C}$; 03 = $\pm 25 \text{ ppm}/^{\circ}\text{C}$

Schematic Code
A, B, C, D

Circuit Number
See Schematic/Circuit Detail Tables

Ratio Tolerance Code
G = $\pm 2\%$; F = $\pm 1\%$; D = $\pm 0.5\%$; C = $\pm 0.25\%$; B = $\pm 0.1\%$; A = $\pm 0.05\%$

Absolute Tolerance Code
G = $\pm 2\%$; F = $\pm 1\%$; D = $\pm 0.5\%$; C = $\pm 0.25\%$; B = $\pm 0.1\%$

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