SOT23 Surface Mount Voltage Divider

SOT23 Series

- Extremely small footprint
- Precision ratio tolerances to ±0.05%
- Superior alternative to matched sets
- Ultra-stable TaNSil® resistors on silicon substrate
- Standard Sn/Pb and Pb-free terminations available

Electrical Data

Characteristic	Each Resistor	Total Resistance
Resistance Range	10 - 200KΩ	400KΩ
Absolute Tolerance	To ±0.1%	
Ratio Tolerance	To ±0.05%	
Absolute TCR	To ±25ppm/°C	
Tracking TCR	To ±2ppm/°C	
Element Power Rating	125mW @70°C	
Package Power Rating	250mW @70°C	
Rated Operating Voltage (not to exceed $\sqrt{\text{Power X Resistance}}$)	100 Volts	
Operating Temperature	-55°C to ±125°C	
Noise	<-30dB	
Substrate Material	Silicon	

Environmental Data

Test Per MIL-PRF-83401	Typical Delta R	Max Delta R
Thermal Shock	±0.02%	±0.1%
Power Conditioning	±0.03%	±0.1%
High Temperature Exposure	±0.03%	±0.05%
Short-time Overload	±0.02%	±0.05%
Low Temperature Storage	±0.03%	±0.05%
Life	±0.05%	±2.0%

Manufacturing Capability

Individual Resistance	Available Absolute Tolerances	Available Ratio Tolerances	Best Absolute TCR	Tracking TCR
10Ω - 25Ω	F G J K	D F G	±100ppm/°C	±25ppm/°C
25.1Ω - 50Ω	D F G J K	C D F G	±50ppm/°C	±10ppm/°C
51Ω - 500Ω	C D F G J K	B C D F G	±25ppm/°C	±2ppm/°C
501Ω - 100KΩ	B C D F G J K	A B C D F G	±25ppm/°C	±2ppm/°C
101KΩ - 200KΩ	B C D F G J K	B C D F G	±25ppm/°C	±2ppm/°C

SOT23 Surface Mount Voltage Divider

Physical Data

0.1125" ± .0075
0.018" ± .003
0.051" ± .004
3
1
2
0.0205" ± .0035
0.075" ± .005
0.0375" ±.0025

0.0305" ± .0045
0.0022"± .0017

0.005" ± .002
0.018" - 0.028" REF
0.0075" ± .004

Note: Dimensions do not include mold flash and metal burr.

Schematic Diagram

3

R2   R1

1   2

Viewed from top of part

Power Derating Data

% Of Rated Power: 100, 50, 10

Temperature in °C: 25°, 70°, 125°
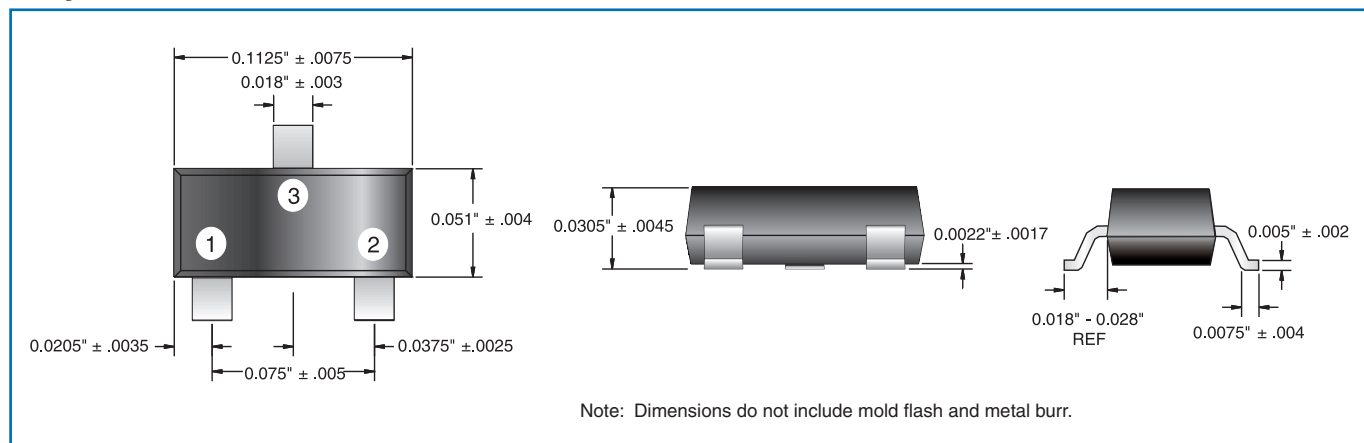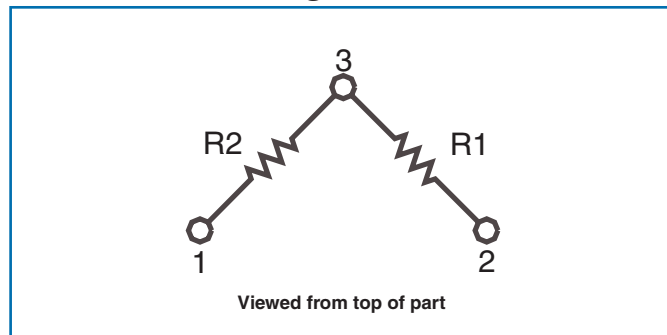
Ordering Procedure

Prefix · · · · · · · · · · · | SOT | - | SOT23 | - | 01 | - | 1002 | - | 1002 | - | F | B |

Style · · · · · · · · · · · ·
SOT23 = Divider network with standard Sn/Pb termination
SOT23LF= Divider network with Pb-free termination

Absolute TCR Code · · · · · · · · · · · · · · · ·
00 = ±250ppm/°C; 01 = ±100ppm/°C;
02 = ±50ppm/°C; 03 = ±25ppm/°C

R1 Resistance Code · · · · · · · · · · · · · · · · ·
4-Digit Resistance Code
Ex: 1002 = 10KΩ; 50R1 = 50.1Ω

R2 Resistance Code · · · · · · · · · · · · · · · · ·
4-Digit Resistance Code
Ex: 1002 = 10KΩ; 50R1 = 50.1Ω

Absolute Tolerance Code · · · · · · · · · · · · · · ·
K = ±10%; J = ±5%; G = ±2%; F = ±1%;
D = ±0.5%; C = ±0.25%; B = ±0.1%

Ratio Tolerance Code · · · · · · · · · · · · · · ·
G = ±2%; F = ±1%; D = ±0.5%;
C = ±0.25%; B = ±0.1%; A = ±0.05%

Packaging
Standard packaging is tape & reel

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