

# SOT23 Surface Mount Voltage Divider

## SOT23 Series

- Extremely small footprint
- Precision ratio tolerances to  $\pm 0.05\%$
- 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 - 200K $\Omega$	400K $\Omega$
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 $\pm 2\text{ppm}/^\circ\text{C}$	
Element Power Rating	125mW @ 70°C	
Package Power Rating	250mW @ 70°C	
Rated Operating Voltage (not to exceed $\sqrt{\text{Power} \times \text{Resistance}}$ )	100 Volts	
Operating Temperature	-55°C to $\pm 125^\circ\text{C}$	
Noise	< -30dB	
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	$\pm 0.05\%$	$\pm 2.0\%$

## Manufacturing Capability

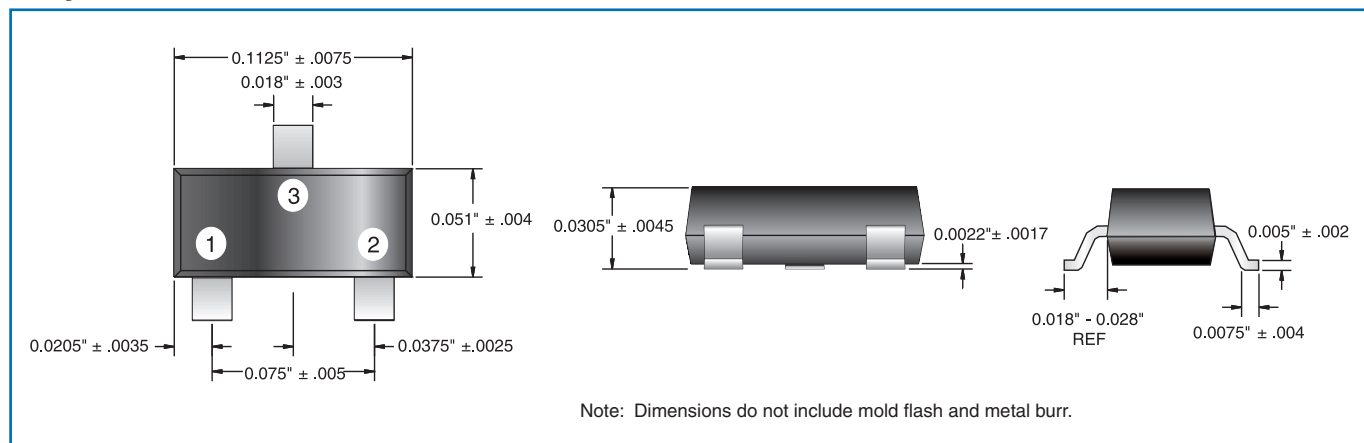
Individual Resistance	Available Absolute Tolerances	Available Ratio Tolerances	Best Absolute TCR	Tracking TCR
10 $\Omega$ - 25 $\Omega$	F G J K	D F G	$\pm 100\text{ppm}/^\circ\text{C}$	$\pm 25\text{ppm}/^\circ\text{C}$
25.1 $\Omega$ - 50 $\Omega$	D F G J K	C D F G	$\pm 50\text{ppm}/^\circ\text{C}$	$\pm 10\text{ppm}/^\circ\text{C}$
51 $\Omega$ - 500 $\Omega$	C D F G J K	B C D F G	$\pm 25\text{ppm}/^\circ\text{C}$	$\pm 2\text{ppm}/^\circ\text{C}$
501 $\Omega$ - 100K $\Omega$	B C D F G J K	A B C D F G	$\pm 25\text{ppm}/^\circ\text{C}$	$\pm 2\text{ppm}/^\circ\text{C}$
101K $\Omega$ - 200K $\Omega$	B C D F G J K	B C D F G	$\pm 25\text{ppm}/^\circ\text{C}$	$\pm 2\text{ppm}/^\circ\text{C}$

### General Note

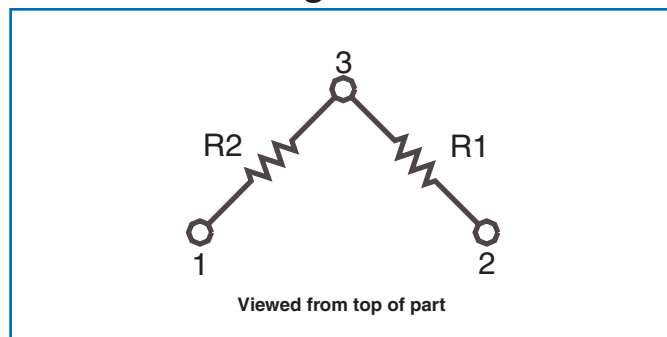
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# SOT23 Surface Mount Voltage Divider

## Physical Data



## Schematic Diagram



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

**R1 Resistance Code** .....  
4-Digit Resistance Code  
Ex: 1002 = 10K $\Omega$ ; 50R1 = 50.1 $\Omega$

**R2 Resistance Code** .....  
4-Digit Resistance Code  
Ex: 1002 = 10K $\Omega$ ; 50R1 = 50.1 $\Omega$

**Absolute Tolerance Code** .....  
K =  $\pm 10\%$ ; J =  $\pm 5\%$ ; G =  $\pm 2\%$ ; F =  $\pm 1\%$ ;  
D =  $\pm 0.5\%$ ; C =  $\pm 0.25\%$ ; B =  $\pm 0.1\%$

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

**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.

## Power Derating Data

