

# SOT23 Surface Mount Voltage Divider

## New DIV23 Series

- Replaces IRC SOT23 Series for new designs
- Precision ratio tolerances to  $\pm 0.05\%$
- Superior alternative to matched sets
- Ultra-stable TaNSil<sup>®</sup> resistors on silicon substrate
- RoHS Compliant and Sn/Pb terminations available



## Electrical Data

Element Resistance Range	10 to 200K $\Omega$
Total Resistance Range	20 to 400K $\Omega$
Absolute Tolerance	To $\pm 0.1\%$
Ratio Tolerance to R1	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 @ 70 $^\circ\text{C}$	125mW
Package Power Rating @ 70 $^\circ\text{C}$	250mW
Rated Operating Voltage (not to exceed $\sqrt{P \times R}$ )	100 Volts
Operating Temperature	-55 $^\circ\text{C}$ to +125 $^\circ\text{C}$
Noise	<-30dB

## 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

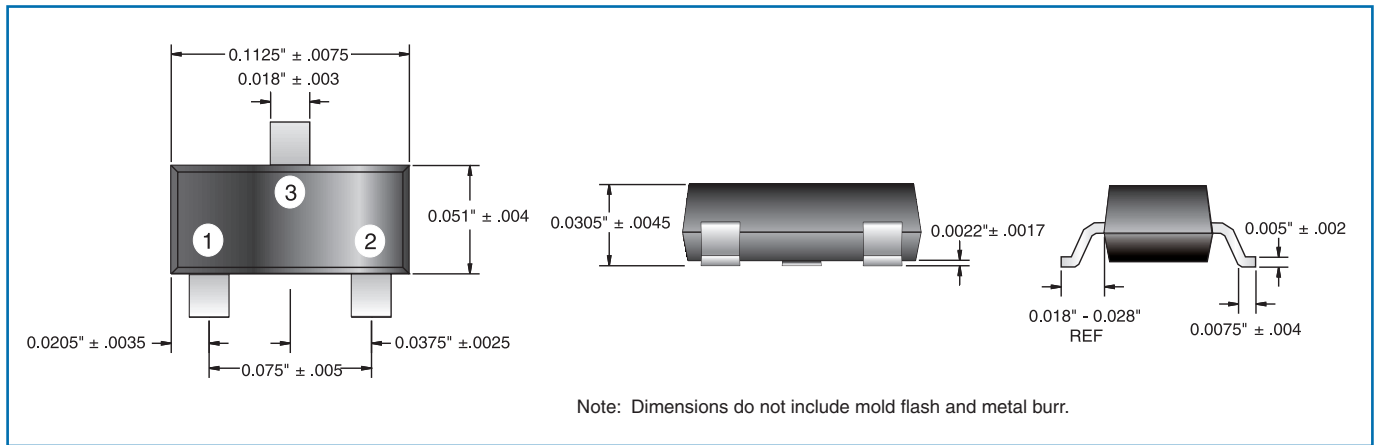
Element Resistance	Available Absolute Tolerances	Available Ratio Tolerances	Best Absolute TCR	Tracking TCR
10 $\Omega$ - 25 $\Omega$	F G J K	D F G	$\pm 100\text{ppm}/^\circ\text{C}$	$\pm 25\text{ppm}/^\circ\text{C}$
25.1 $\Omega$ - 50 $\Omega$	D F G J K	C D F G	$\pm 50\text{ppm}/^\circ\text{C}$	$\pm 10\text{ppm}/^\circ\text{C}$
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

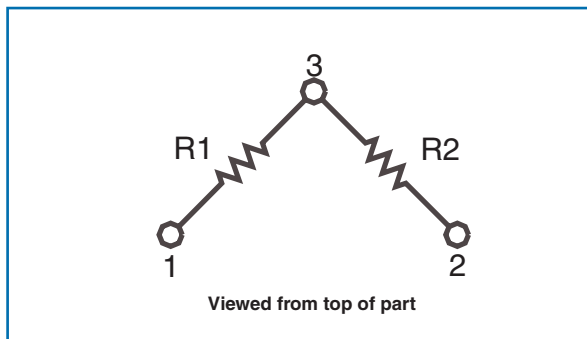
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# SOT23 Surface Mount Voltage Divider

## Physical Data



## Schematic Data



## Ordering Procedure

Prefix ..... **SOT** - **DIV23LF** - **01** - **1002** - **1002** - **F** **B**

Style .....  
 DIV23 = Divider network with standard Sn/Pb termination  
 DIV23LF = 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%

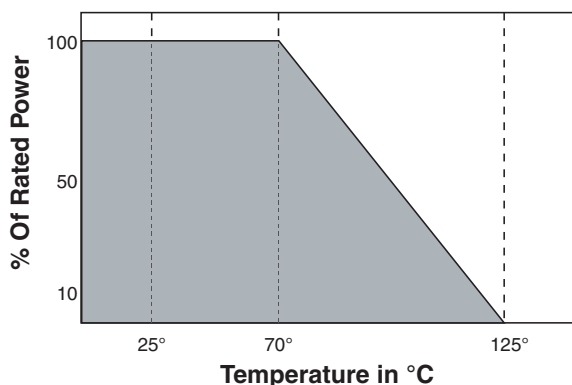
Ratio Tolerance Code .....  
 G = ±2%; F = ±1%; D = ±0.5%;  
 C = ±0.25%; B = ±0.1%; A = ±0.05%

Packaging  
 Standard packaging is tape & reel.

**SOT23 Series Legacy Design Note**  
 The SOT-DIV23 place R1 between pins 1 and 3 and R2 between pins 2 and 3.  
 The SOT-SOT23 place R1 between pins 2 and 3 and R2 between pins 1 and 3.

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

## Power Derating Data



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