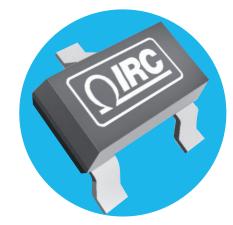
## Resistors

# SOT23 Surface Mount Voltage Divider

#### **DIV23 Series**

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





All Pb-free parts comply with EU Directive 2011/65/EU (RoHS2)

#### **Electrical Data**

Element Resistance Range	10 to 200KΩ
Total Resistance Range	20 to 400KΩ
Absolute Tolerance	To ±0.1%
Ratio Tolerance to R1	To ±0.05%
Absolute TCR	To ±25ppm/°C
Tracking TCR	To ±2ppm/°C
Element Power Rating @ 70°C	125mW
Package Power Rating @ 70°C	250mW
Rated Operating Voltage (not to exceed $\sqrt{P \times R}$ )	100 Volts
Operating Temperature	-55°C to +125°C
Noise	<-30dB

#### **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%	±0.1%	

#### Manufacturing Capability

Element Resistance	Available Absolute Tolerances	Available Best es Ratio Tolerances Absolute TCR		Tracking TCR
10Ω - 25Ω	FGJK	DFG	±100ppm/°C	±25ppm/°C
25.1Ω - 50Ω	DFGJK	CDFG	±50ppm/°C	±10ppm/°C
51Ω - 500Ω	CDFGJK	BCDFG	±25ppm/°C	±2ppm/°C
501Ω - 100ΚΩ	ВСDFGJK	ABCDFG	±25ppm/°C	±2ppm/°C
101ΚΩ - 200ΚΩ	ВСDFGJK	BCDFG	±25ppm/°C	±2ppm/°C

#### General Note

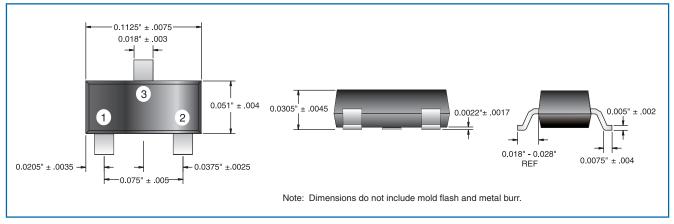
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www.ttelectronicsresistors.com

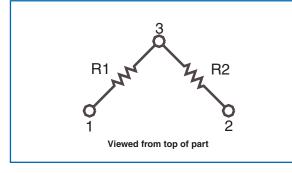


**DIV23 Series** 

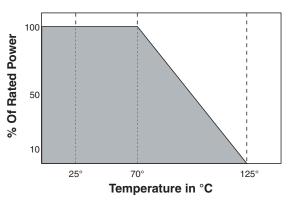
#### Physical Data



### Schematic Data



### Power Derating Data



#### General Note

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**Bi** technologies  $\Omega$ **IRC** Welwyn



### **Ordering Procedure**

This product has two valid part numbers:

**European (Welwyn) Part Number: D23-1K0-3K3FB** (25ppm/°C, R1=1 kilohm, R2=3.3 kilohms, absolute tolerance ±1%, ratio tolerance ±0.1%, Pb-free)

D 2 3 -	1 K 0 -	3 K 3	FB
1 2	3	4	5 6 7

1	2	3	4	5	6	7
Туре	Absolute TCR	Value R1	Value R2	Absolute Tolerance	Ratio Tolerance	Termination & Packing
D23 =	Omit for ±25ppm/°C	E24 = 3/4	characters	B = ±0.1%	A = ±0.05%	Omit for Pb-free,
DIV23	02 = ±50ppm/°C	E96 = 3/4	characters	$C = \pm 0.25\%$	B = ±0.1%	Standard pack
	01 = ±100ppm/°C	R = ohms K = kilohms		D = ±0.5%	C = ±0.25%	PB = SnPb finish,
	00 = ±250ppm/°C			F = ±1%	D = ±0.5%	Standard pack
				G = ±2%	F = ±1%	1000/reel
				J = ±5%	G = ±2%	
				K = ±10%		

Note that this is equivalent to the legacy part number SOT23-3K3-1K0FB in which positions of R1 and R2 were transposed.

**USA (IRC) Part Number: SOT-DIV23LF-03-1001-3301-FB** (25ppm/°C, R1=1 kilohm, R2=3.3 kilohms, absolute tolerance ±1%, ratio tolerance ±0.1%, Pb-free)

S O T -	D I V 2 3	LF	- 0 3 -	1 0 0 1	- 3 3 0 1	- F B
1	2	3	4	5	6	7 8

1	2	3	4	5	6	7	8	
Family	Model	Termination	Absolute TCR	Value R1	Value R2	Absolute Tolerance	Ratio Tolerance	Packing
SOT	DIV23	Omit for SnPb	03 = ±25ppm/°C 3 digits + multiplier		B = ±0.1%	A = ±0.05%	1000/reel	
		(60/40)	02 = ±50ppm/°C	R = oh	ms for	C = ±0.25%	B = ±0.1%	
		LF = Pb-free	01 = ±100ppm/°C	values <1	00 ohms	D = ±0.5%	C = ±0.25%	
		(100%Sn)	00 = ±250ppm/°C			F = ±1%	D = ±0.5%	
						G = ±2%	F = ±1%	
						J = ±5%	G = ±2%	
						K = ±10%		-

Note that this is equivalent to the legacy part number SOT-SOT23LF-03-3301-1001-FB in which positions of R1 and R2 were transposed.

General Note

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 M8340108K2402GGD03
 M8340108K3240FGD03

 M8340108K4991FGD03
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