

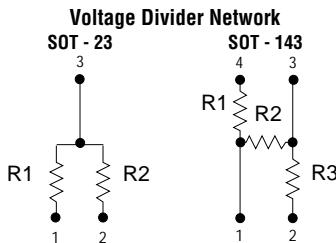
NICHROME ON SILICON

Voltage Divider Circuit Thin Film Resistor Networks

NEW PRODUCT



SCHEMATICS



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ELECTRICAL

Standard Resistance Range, Ohms	1K to 100K
Operating Temperature Range	-55°C to +125°C
Interlead Capacitance	<2pF
Insulation Resistance	≥10,000 Megohms
Maximum Operating Voltage	100Vdc or √PR
Noise, Maximum (MIL-STD-202, Method 308)	-25dB

ENVIRONMENTAL

Thermal Shock plus Power Conditioning, Maximum	ΔR 0.1%
Short Time Overload, Maximum	ΔR 0.1%
Terminal Strength	ΔR 0.1%
Moisture Resistance, Maximum	ΔR 0.1%
Mechanical Shock, Maximum	ΔR 0.1%
Vibration, Maximum	ΔR 0.1%
Low Temperature Operation	ΔR 0.1%
High Temperature Exposure, Maximum	ΔR 0.1%
Resistance to Solder Heat, Maximum	ΔR 0.05%
Marking Permanency	per MIL-STD-202, Method 215
Storage Temperature Range	-55°C to +125°C

Specifications subject to change without notice.



Bi technologies

MECHANICAL

Lead Plating	80/20 Tin Lead
Lead Material	Copper Alloy
Lead Configuration	Gull Wing
Lead Coplanarity	0.004" (0.102mm)
Substrate Material	Silicon
Resistor Material	Passivated Nichrome
Body Material	Molded Epoxy

TOLERANCES

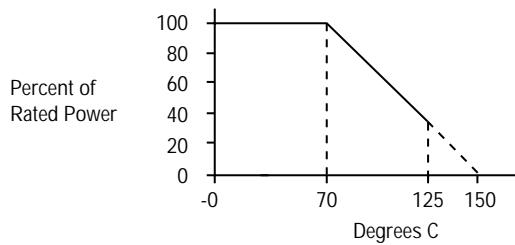
Accuracy Code	B	D	F	G	J
Absolute Resistance Tolerances at 25°C	0.1%	0.5%	1.0%	2.0%	5.0%
Ratio Tolerances at 25°C	0.1%	0.1%	1.0%	N/A	N/A
Temperature Coefficient of Resistance (TCR Code)				±25ppm/°C (Q)	±50ppm/°C (P)
				±100ppm/°C (S)	
Temperature Coefficient of Resistance, Tracking				±5ppm/°C	

PACKAGE POWER, WATTS @ 70°C, MAX.

SOT - 23	SOT - 143
0.20	0.25

Power per resistor @ 70°C, Max. is 100mW, not to exceed package power.

POWER DERATING CURVE



OUTLINE DIMENSIONS

Refer to standard package Outline Dimensions at the end of the Model NiCr on Si section.

ORDERING INFORMATION

Model Series: S S1 03 VD 01 F 7
S = Passivated Nichrome
on Silicon

Package Type: S1
S1 = SOT - 23
S2 = SOT - 143

of Pins: 03
03 = 3 Leads (SS1)
04 = 4 Leads (SS2)

Circuit Type: VD
VD = Voltage Divider

Packaging Option:
7 = 7" Tape & Reel
13 = 13" Tape & Reel
(Refer to Packaging Quantities Table.)

TCR Code:
S = $\pm 100\text{ppm}/^\circ\text{C}$
P = $\pm 50\text{ppm}/^\circ\text{C}$
Q = $\pm 25\text{ppm}/^\circ\text{C}$

Absolute/Ratio Tolerance Code:
B = $\pm 0.1\%/\pm 0.1\%$
D = $\pm 0.5\%/\pm 0.1\%$
F = $\pm 1.0\%/\pm 1.0\%$
G = $\pm 2.0\%/(N/A)$
J = $\pm 5.0\%/(N/A)$

Resistance Code (SS1=R1/R2, SS2=R1/R2/R3):
01 = 12.4K/20K (SS1 Only)
02 = 10K/100K (SS1 Only)
03 = 5K/20K (SS1 Only)
04 = 1.15K/1.35K/1K (SS2 Only)
05 = 20K/20K (SS1 Only)

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CUSTOM SOLUTIONS

Networks designed to meet your specific electrical and packaging requirements are available.
Please contact the factory for technical assistance, price and availability.

Contact BI Technologies

For assistance with your application, network pricing and delivery information contact BI Technologies product
Marketing at (714) 447-2345, by fax (714) 388-0046, by email: sales@bitechologies.com

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