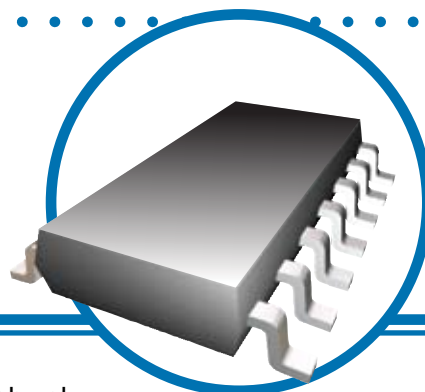


Surface Mount SOIC Resistor Networks

SOIC Series

- Tested for COTS applications
- Both narrow and wide body versions available
- Standard JEDEC 8, 14, 16, and 20 pin packages
- Ultra-stable TaNSiI® resistors on silicon substrates
- Standard Sn/Pb and Pb-free terminations available



IRC's TaNSiI® SOIC resistor networks are the perfect solution for high volume applications that demand a small wiring board footprint. The .050" lead spacing provides higher lead density, increased component count, lower resistor cost, and high reliability.

The tantalum nitride film system on silicon provides precision tolerance, exceptional TCR tracking, low cost and miniature package. Excellent performance in harsh, humid environments is a trademark of IRC's self-passivating TaNSiI® resistor film.

The SOIC series is ideally suited for the latest surface mount assembly techniques and each lead can be 100% visually inspected. The compliant gull wing leads relieve thermal expansion and contraction stresses created by soldering and temperature excursions.

For applications requiring high performance resistor networks in a low cost, surface mount package, specify IRC SOIC resistor networks.

Electrical Data

Resistance Range	10 – 250KΩ	
Absolute Tolerance	To ±0.1%	
Ratio Tolerance to R1	To ±0.05%	
Absolute TCR	To ±25ppm/°C	
Tracking TCR	To ±5ppm/°C	
Element Power Rating @ 70°C		
Isolated Schematic	100mW	
Bussed Schematic	50mW	
Power Rating @ 70°C	8-Pin	400mW
SOIC-N Package	14-Pin	700mW
	16-Pin	800mW
Power Rating @ 70°C	16-Pin	1.2W
SOIC-W Package	20-Pin	1.5W
Rated Operating Voltage	100 Volts	
(not to exceed $\sqrt{\text{Power} \times \text{Resistance}}$)		
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%

General Note

Welwyn Components reserves the right to make changes in product specification without notice or liability. All information is subject to Welwyn's own data and is considered accurate at time of going to print.

© Welwyn Components Limited Bedlington, Northumberland NE22 7AA, UK
Telephone: +44 (0) 1670 822181 • Facsimile: +44 (0) 1670 829465 • Email: info@welwyn-tt.com • Website: www.welwyn-tt.com

Welwyn

A subsidiary of
TT electronics plc
SOIC Series Issue June 2006

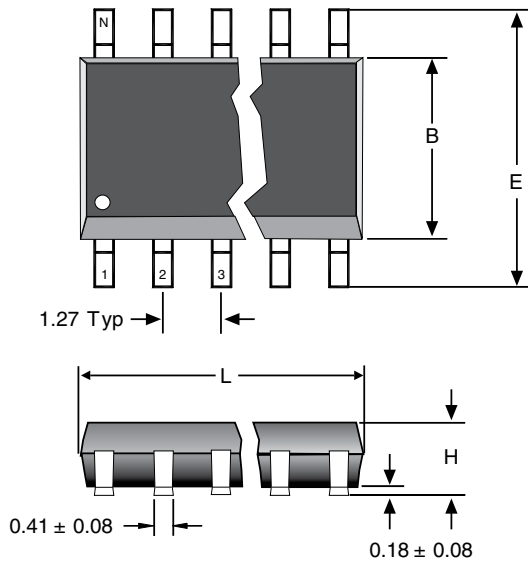
Surface Mount SOIC Resistor Networks

Manufacturing Capability Data

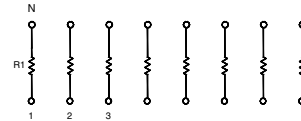
Absolute TCR (ppm/°C)	ISOLATED SCHEMATIC A				BUSSED SCHEMATIC B			
	Ohmic Range (Ω)	Available Tolerances	Available Ratio Tolerances	Best TCR Tracking (±ppm/°C)	Ohmic Range (Ω)	Available Tolerances	Available Ratio Tolerances	Best TCR Tracking (ppm/°C)
250	10 - 25	F G J	F G	50	10 - 25	F G J	F G	200
	26 - 50	D F G J	C D F G	10	26 - 50	F G J	D F G	100
	51 - 200	C D F G J	C D F G	5	51 - 100	D F G J	C D F G	50
	201 - 250K	B C D F G J	A B C D F G	5	101 - 200	D F G J	B C D F G	25
					201 - 500	B C D F G J	B C D F G	20
					501 - 100K	B C D F G J	A B C D F G	5
100	26 - 50	D F G J	C D F G	10	26 - 50	F G J	D F G	100
	51 - 200	C D F G J	C D F G	5	51 - 100	D F G J	C D F G	50
	201 - 250K	B C D F G J	A B F G	5	101 - 200	D F G J	B C D F G	25
					201 - 500	B C D F G J	B C D F G	20
					501 - 100K	B C D F G J	A B C D F G	5
50	26 - 50	D F G J	C D F G	10	51 - 100	D F G J	C D F G	50
	51 - 200	C D F G J	C D F G	5	101 - 200	D F G J	B C D F G	25
	201 - 250K	B C D F G J	A B F G	5	201 - 500	B C D F G J	B C D F G	20
					501 - 100K	B C D F G J	A B C D F G	5
25	51 - 200	C D F G J	C D F G	5	201 - 500	B C D F G J	B C D F G	20
	201 - 250K	B C D F G J	A B F G	5	501 - 100K	B C D F G J	A B C D F G	5

Surface Mount SOIC Resistor Networks

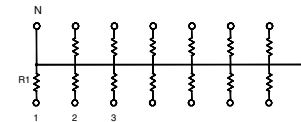
Physical and Schematic Data (mm)



Note: All dimensions exclude mold flash and end flash which shall not exceed 0.15 per side.



Schematic A
Isolated

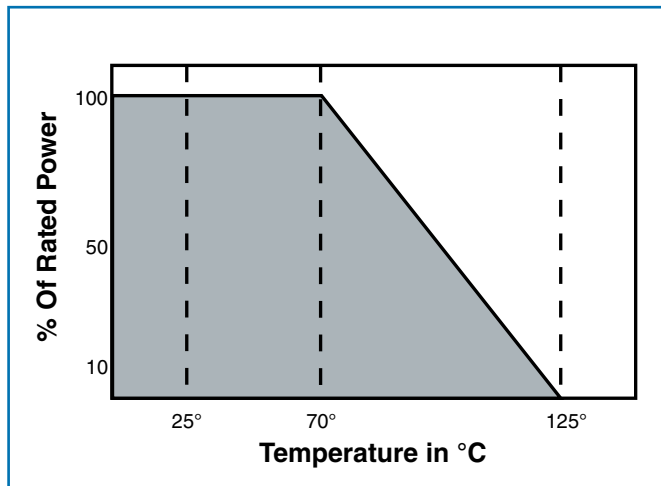


Schematic B
Bussed

Note: N = number of pins (8, 14, 16)

	SOIC-N			SOIC-W	
	8-Pin	14-Pin	16-Pin	16-Pin	20-Pin
L	4.9 ± 0.1	8.66 ± 0.1	9.91 ± 0.1	10.21 ± 0.1	12.75 ± 0.1
E	6.0 ± 0.2			10.3 ± 0.3	
B	3.9 ± 0.1			7.5 ± 0.1	
H	1.5 ± 0.2			2.5 ± 0.15	

Power Derating Data



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

Ordering Data

SS8 A - 01 - 10K - F B

Style

SS4 = 8-pin SOIC-N
SS7 = 14-pin SOIC-N
SS8 = 16-pin SOIC-N
SL8 = 16-pin SOIC-W
SL0 = 20-pin SOIC-W

Schematic

A = Isolated network
B = Bussed network

Absolute TCR Code

00 = ±250ppm/°C; 01 = ±100ppm/°C
02 = ±50ppm/°C; 03 = ±25ppm/°C

Resistance Code

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

Absolute Tolerance Code

J = ±5%; G = ±2%; F = ±1%; D = ±0.5%
C = ±0.25%; B = ±0.1%

Optional Ratio Tolerance Code

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

Packaging

Specify tubes or tape & reel.

Finish

Blank = Pb - free
PB = SnPb