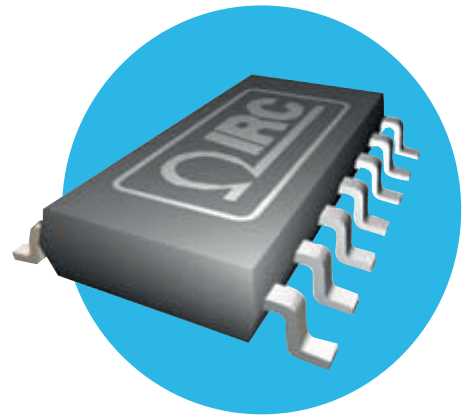


Surface Mount SOIC Resistor Networks

SOIC Series

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



 All Pb-free parts comply with EU Directive 2011/65/EU amended by (EU) 2015/863 (RoHS3)

IRC's TaNSil® 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 TaNSil® 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 | 10R to 250K |
| 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 Bussed Schematic | 100mW 50mW |
| Power Rating @ 70°C SOIC-N Package | 8-Pin 400mW 14-Pin 700mW 16-Pin 800mW |
| Power Rating @ 70°C SOIC-W Package | 16-Pin 1.2W 20-Pin 1.5W |
| Rated Operating Voltage (not to exceed $\sqrt{\text{Power} \times \text{Resistance}}$) | 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% |

General Note

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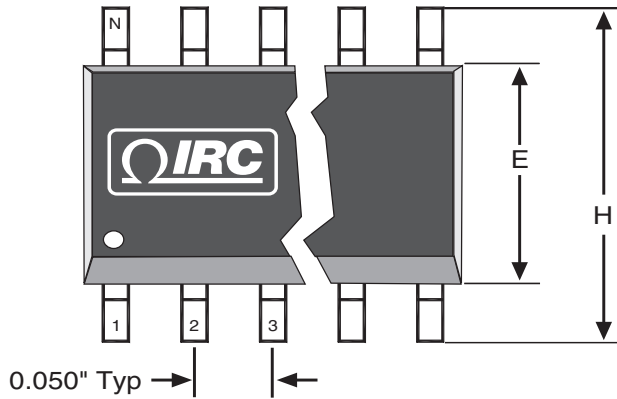
Manufacturing Capability Data

| Absolute TCR (ppm/°C) | ISOLATED SCHEMATIC A | | | | BUSSED SCHEMATIC B | | | |
|-----------------------|----------------------|----------------------|----------------------------|-------------------------|--------------------|----------------------|----------------------------|-------------------------|
| | Ohmic Range (Ω) | Available Tolerances | Available Ratio Tolerances | Best Tracking (±ppm/°C) | Ohmic Range (Ω) | Available Tolerances | Available Ratio Tolerances | Best 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 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 |
| 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 C D 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 C D F G | 5 | 501-100K | B C D F G J | A B C D F G | 5 |

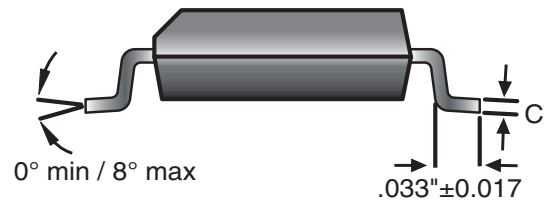
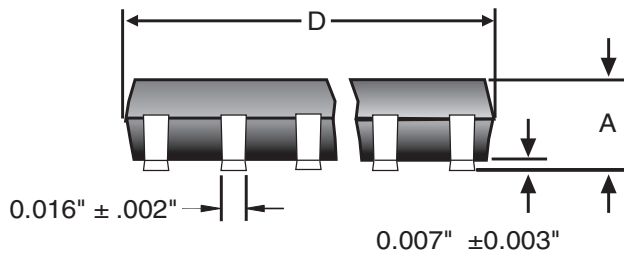
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Physical and Schematic Data

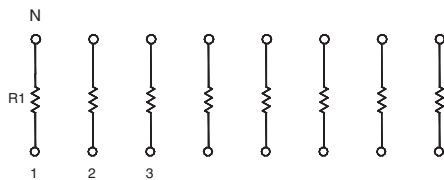


| | SOIC-N | | | SOIC-W | |
|---|-------------------------------------|---------------------------------|---------------------------------|----------------------------------|----------------------------------|
| | 8-Pin | 14-Pin | 16-Pin | 16-Pin | 20-Pin |
| D | 0.193"±0.004 (4.902 ± 0.102) | 0.341"±0.004 (8.661 ± 0.102) | 0.390"±0.004 (9.906 ± 0.102) | 0.402"±0.004 (10.211 ± 0.102) | 0.502"±0.004 (12.751 ± 0.102) |
| H | 0.236"±0.008 (5.994 ± 0.203) | | | 0.406"±0.008 (10.312 ± 0.203) | |
| E | 0.153"±0.004 (3.886 ± 0.102) | | | 0.295"±0.004 (7.493 ± 0.102) | |
| A | 0.064"±0.004 (1.626 ± 0.102) | | | 0.100"±0.004 (2.540 ± 0.102) | |
| C | 0.0075" - 0.010" (0.191 ± 0.254) | | | 0.011"±0.002 (0.279 ± 0.051) | |

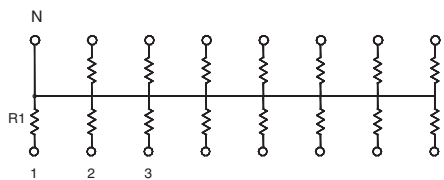


Note: All dimensions exclude mold flash and end flash which shall not exceed 0.006" per side.

Note: Lead Coplanarity 0.004" Max.

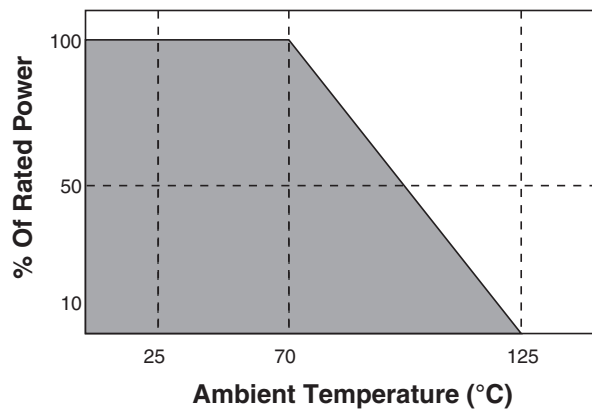


Schematic A
Isolated



Schematic B
Bussed

Power Derating Curve



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

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Ordering Data

Prefix

(Inclusion of Prefix is preferred but, historically, it may have been omitted.)

GUS - **SS4A** - **01** - **1002** - **F** **B**

Style, Schematic and Termination

SS4A = 8-pin SOIC-N, 4 Isolated Resistors; Sn/Pb terminations
 SS4ALF = 8-pin SOIC-N, 4 Isolated Resistors; 100% tin (Pb-free) terminations
 SS4B = 8-pin SOIC-N, 7 Bussed Resistors; Sn/Pb terminations
 SS4BLF = 8-pin SOIC-N, 7 Bussed Resistors; 100% tin (Pb-free) terminations

SS7A = 14-pin SOIC-N, 7 Isolated Resistors; Sn/Pb terminations
 SS7ALF = 14-pin SOIC-N, 7 Isolated Resistors; 100% tin (Pb-free) terminations
 SS7B = 14-pin SOIC-N, 13 Bussed Resistors; Sn/Pb terminations
 SS7BLF = 14-pin SOIC-N, 13 Bussed Resistors; 100% tin (Pb-free) terminations

SS8A = 16-pin SOIC-N, 8 Isolated Resistors; Sn/Pb terminations
 SS8ALF = 16-pin SOIC-N, 8 Isolated Resistors; 100% tin (Pb-free) terminations
 SS8B = 16-pin SOIC-N, 15 Bussed Resistors; Sn/Pb terminations
 SS8BLF = 16-pin SOIC-N, 15 Bussed Resistors; 100% tin (Pb-free) terminations

SL8A = 16-pin SOIC-W, 8 Isolated Resistors; Sn/Pb terminations
 SL8ALF = 16-pin SOIC-W, 8 Isolated Resistors; 100% tin (Pb-free) terminations
 SL8B = 16-pin SOIC-W, 15 Bussed Resistors; Sn/Pb terminations
 SL8BLF = 16-pin SOIC-W, 15 Bussed Resistors; 100% tin (Pb-free) terminations

SL0A = 20-pin SOIC-W, 10 Isolated Resistors; Sn/Pb terminations
 SL0ALF = 20-pin SOIC-W, 10 Isolated Resistors; 100% tin (Pb-free) terminations
 SL0B = 20-pin SOIC-W, 19 Bussed Resistors; Sn/Pb terminations
 SL0BLF = 20-pin SOIC-W, 19 Bussed Resistors; 100% tin (Pb-free) terminations

Absolute TCR Code

00 = ± 250 ppm/ $^{\circ}$ C; 01 = ± 100 ppm/ $^{\circ}$ C
 02 = ± 50 ppm/ $^{\circ}$ C; 03 = ± 25 ppm/ $^{\circ}$ C

Resistance Code

4-Digit Resistance Code
 Ex: 1002 = 10K Ω , 50R1 = 50.1 Ω
 (The USA style coding shown is preferred, but, historically, European style coding (e.g. 10K) may have been used.)

Absolute Tolerance Code

J = $\pm 5\%$; G = $\pm 2\%$; F = $\pm 1\%$; D = $\pm 0.5\%$
 C = $\pm 0.25\%$; B = $\pm 0.1\%$

Optional 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

Specify tubes or tape & reel.
 Tape and reel packaging is compliant with EIA-481-D: 8 mm through 200 mm Embossed Carrier Taping and 8 mm and 12 mm Punched Carrier Taping of Surface Mount Components for Automatic Handling.
 Tube packaging drawing detail available upon request.

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Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

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- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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Факс: 8 (812) 320-02-42

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