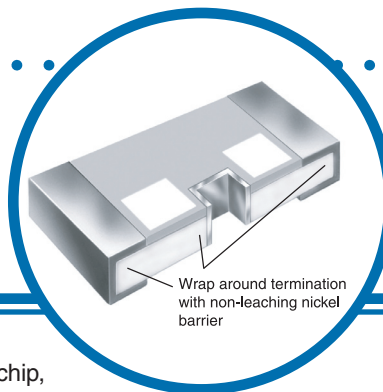


# TaNFilm® Precision Chip Voltage Divider



## PFC Divider Series

- Popular 1206 Chip Size
- 5Ω to 150KΩ per resistor
- Tested for COTS applications
- Superior alternative to matched sets
- Standard Sn/Pb and 100% tin (Pb-free) terminations available



IRC now has a perfect voltage divider solution. Designed around the 1206 sized chip, the PFC Divider series provides a single package solution that is compatible with your automatic placement equipment. The ratio tolerance can be specified down to 0.05%\* which is much tighter than the 0.2% achievable from two individual 0.1% chip resistors. Similarly, the TCR tracking of 5 ppm/°C is far superior to the tracking obtainable from two individual 25 ppm/°C chip resistors. IRC's TaNFilm® Tantalum Nitride film system provides superior environmental performance while insuring long term life stability.

This dual element, monolithic package offers the advantages of reducing component quantities and board space while increasing quality and reliability.

For a precision voltage divider network in a small package solution, specify IRC TaNFilm® PFC Dividers.

## Electrical Data

Characteristic	Each Resistor	Total Resistance
Resistance Range	10 - 150KΩ	200KΩ
Power Rating	125mW	250mW
Absolute TCR	to ±25ppm/°C*	
Tracking TCR	to ±5ppm/°C*	
Maximum Voltage Rating	100 volts	
Operating Temperature Range	-65°C to +150°C	
Noise	Less than -25 db	
Termination	60/40 Sn/Pb or 100% tin (Pb-free)	

\*Tighter Tolerance and Higher Resistance value available. Contact factory for more information

### General Note

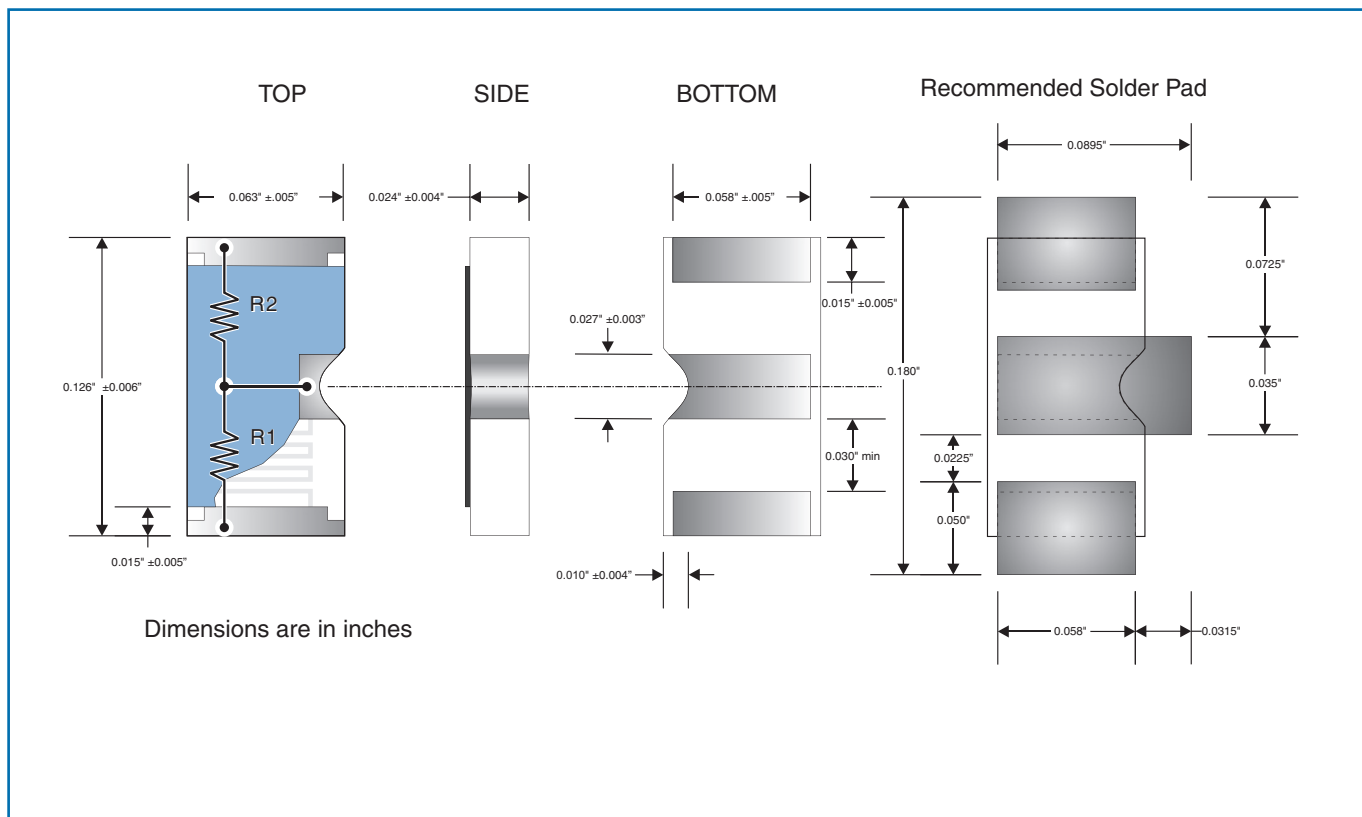
IRC reserves the right to make changes in product specification without notice or liability. All information is subject to IRC's own data and is considered accurate at time of going to print.



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## Physical Data



## Environmental Data

Test	Method	$\Delta R/R$	$\Delta$ Ratio
Thermal Shock	MIL-STD-202 -65 to +125°C, 5 Cycles	$\pm 0.02\%$	$\pm 0.005\%$
Short Time Overload	MIL-PRF-55342	$\pm 0.02\%$	$\pm 0.005\%$
High Temperature Exposure	MIL-PRF-55342	$\pm 0.03\%$	$\pm 0.01\%$
Resistance to Bond Exposure	MIL-PRF-55342	$\pm 0.01\%$	$\pm 0.01\%$
Moisture Resistance	MIL-STD-202 10 Cycles, 240 hours 10% Rated Power	$\pm 0.03\%$	$\pm 0.02\%$
Load Life (Rated Power)	MIL-PRF-55342 70°C, 1000 hours	$\pm 0.03\%$	$\pm 0.01\%$
Low Temperature Operation	MIL-PRF-55342	$\pm 0.01\%$	$\pm 0.005\%$

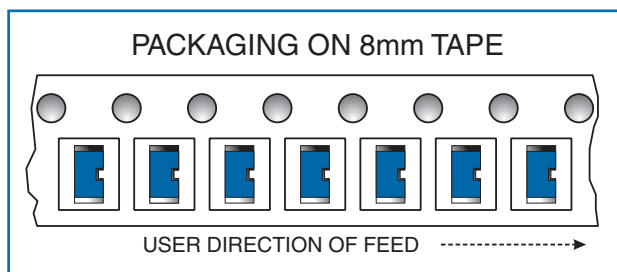
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## Manufacturing Capability

Range of Lowest Resistor	Available Absolute Tolerances	Available Ratio Tolerances	Best Absolute TCR	Best Tracking TCR
5Ω - 24Ω	F	F D	±100ppm/°C	±50ppm/°C
25Ω - 50Ω	F D B	F D B	±50ppm/°C	±20ppm/°C
51Ω - 75Ω	F D B	F D B	±25ppm/°C	±10ppm/°C
76Ω - 999Ω	F D B	F D B A	±25ppm/°C	±5ppm/°C
1.0KΩ - 100KΩ	F D B A	F D B A Q T	±25ppm/°C	±5ppm/°C

## Packaging Data



## Ordering Data

Prefix ..... **PFC** - **D1206** - **03** - **1003** - **3301** - **F** **B**

**Model** .....  
 D1206 - Divider network w/ standard Sn/Pb termination  
 D1206LF - Divider network w/ 100% tin, Pb-free termination

**TCR Code\*** .....  
 01 = ±100ppm/°C; 02 = ±50ppm/°C; 03 = ±25ppm/°C

**R1 Resistance Code** .....  
 Standard 4-Digit resistance code.  
 Ex: 1002 = 10KΩ; 50R0 = 50Ω

**R2 Resistance Code** .....  
 Standard 4-Digit resistance code

**Absolute Tolerance\*** .....  
 F = ±1%; D = ±0.5%; B = ±0.1%; A = ±0.05%

**Ratio Tolerance\*** .....  
 F = ±1%; D = ±0.5%; B = ±0.1%; A = ±0.05%, Q = ±0.02%, T = ±0.01%

\* For tighter tolerance and tighter TCR requirements, please refer to IRC's Ultra Precision datasheet.

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