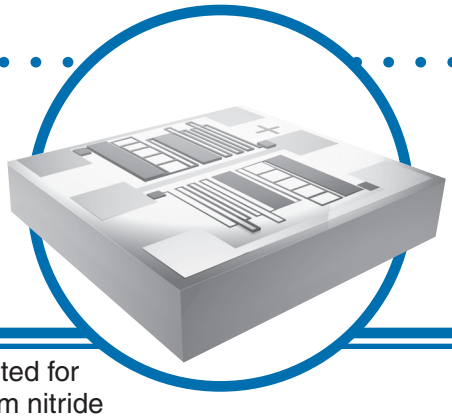
Wire Bondable Ceramic Resistors

WBA Series

- High resistor density
- Lower stray capacitance
- Proven TaNFilm® on ceramic technology



IRC's WBA series wire bondable ceramic resistors are ideally suited for your most demanding hybrid application. IRC's TaNFilm® tantalum nitride thin film technology has years of proven stability, reliability and moisture performance.

IRC's WBA series of ceramic chip resistors offer a wide range of tolerances and temperature coefficients to fit a variety of hybrid circuit applications. Custom resistance values, sizes and schematics are also available on request to the factory.

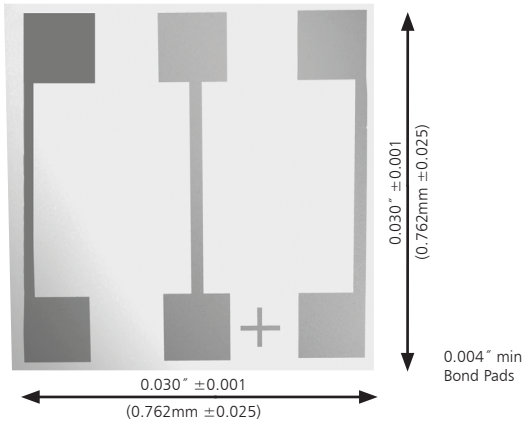
For high performance wire bondable ceramic resistors for hybrid circuit application, specify IRC WBA series resistors.

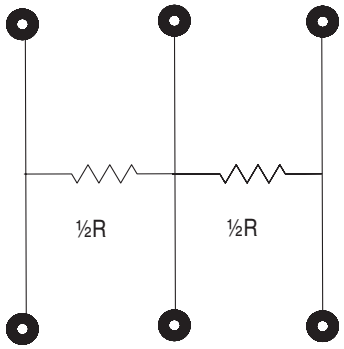
Electrical Data

Absolute Tolerance	to ±0.1%
Ratio Tolerance	to ±0.05%
Absolute TCR	to ±25ppm/°C
Tracking TCR	to ±2ppm/°C
Package Power Rating (@ 70°C)	250mW
Rated Operating Voltage (not to exceed $\sqrt{P \times R}$)	100V
Operating Temperature	-55°C to +150°C
Noise	<-30dB
Substrate Material	99.6% Alumina
Substrate Thickness	0.015˝ ±0.002 (0.381mm ±0.05)
Bond Pad Metallization	Gold: 30KÅ minimum
Backside	Ceramic (gold available)

Physical Data

T0303 - Tapped network





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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Telephone: 361 992 7900 • Facsimile: 361 992 3377 • Website: www.irctt.com

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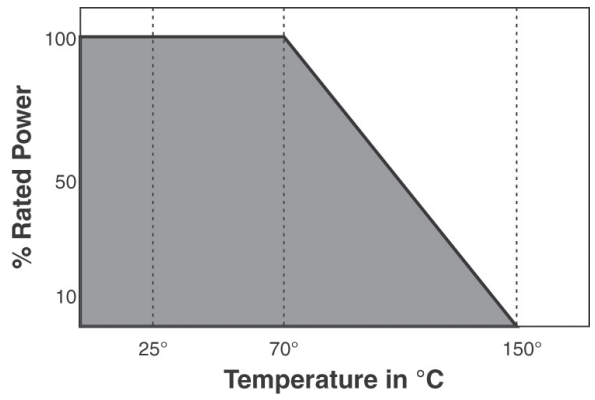
Manufacturing Capabilities Data

Resistance Range	Available Absolute Tolerances	Available Ratio Tolerances	Best Absolute TCR	Tracking TCR
10Ω-20Ω	G J K	F G J	±100ppm/°C	±5ppm/°C
21Ω–50Ω	F G J K	F G J	±100ppm/°C	±5ppm/°C
51Ω-100Ω	C D F G	C D F G	±100ppm/°C	±5ppm/°C
101Ω–200Ω	C D F G	C D F G	±50ppm/°C	±5ppm/°C
201Ω–500Ω	B C D F G	B C D F G	±50ppm/°C	±5ppm/°C
501Ω-999Ω	B C D F G	B C D F G	±25ppm/°C	±5ppm/°C
1.0KΩ-20KΩ	B C D F G	A B C D F G	±25ppm/°C	±2ppm/°C

Power Derating Data



TCR/Inspection Code Table

Absolute TCR	Commercial Code	MIL Inspection Code
±300ppm/°C	00	04
±100ppm/°C	01	05
±50ppm/°C	02	06
±25ppm/°C	03	07

*Notes: Product supplied to Class H of MIL-PRF 38534 include 100% visual inspection

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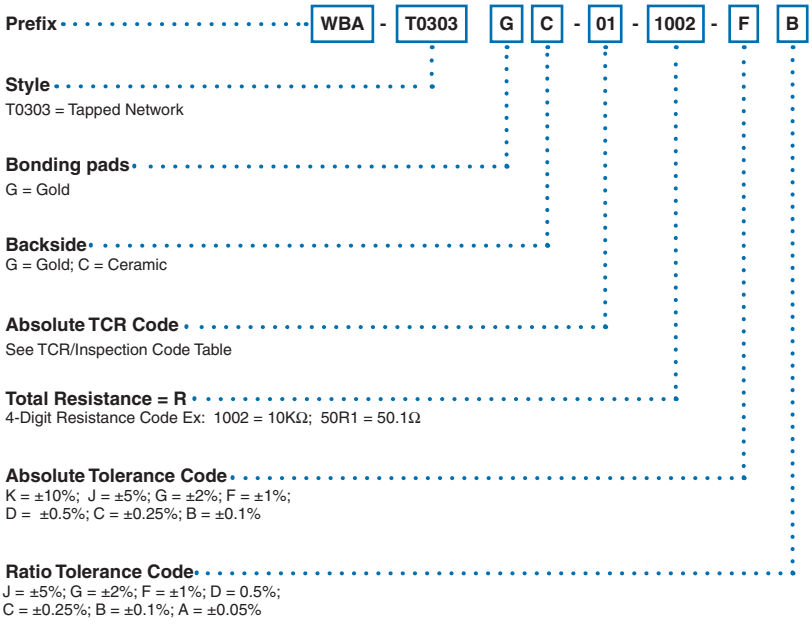
Environmental Data

Test	Method	Max ΔR	Typical ΔR
Thermal Shock	MIL-STD-202 Method 107 Test condition F	±0.1%	±0.02%
High Temperature Exposure	MIL-STD-883 Method 1008 150°C, 1000 hours	±0.1%	±0.05%
Low Temperature Storage	-55°C, 1000 hours	±0.03%	±0.01%
Life	MIL-STD-202 Method 108 70°C, 1000 hours	±0.5%	±0.01%
Life at Elevated Temperature	MIL-STD-202 Method 108 125°C, 1000 hours	±0.5%	±0.05%

Ordering Data



Packaging
Standard packaging is 2″ x 2″ chip tray. For additional information or to discuss your specific requirements, please contact our Applications Team using the contact details below.