Resistors

Wire Bondable Resistor/Capacitor Circuits

WBC-RC Series

- Integrated resistor and capacitor
- Proven IRC TaNSil[®] technology
- 3 types AC Terminator, Tapped and T-Filter





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

Electrical Data					
				1	
Resistance Value		47Ω	1		
Capacitance Value		47pF	80pF	47pF	
Absolute Tolerance	Resistance		±10%		
	Capacitance		±20%		
	Resistance	E	±150ppm/°C		
Absolute TCR	Capacitance	E	±200ppm/°C		
Package Power Rating			250mW		
Resistor Element Power Rating			125mW		
Capacitor Breakdown Voltage			25V		
Operating Temperature		-55	-55°C to +125°C		
Resistor Noise			<-25dB		
Substrate Material			Silicon		
Substrate Thickness			0.010″ ±0.001 (0.254mm ±0.025)		
Bond Pad Metallization		Aluminu	Aluminum: 10KÅ minimum		
Backside		ЗКÅ	3KÅ Gold minimum		
Passivation		Silicon Dic	Silicon Dioxide or Silicon Nitride		

General Note

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



Physical and Schematic Data







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BI Technologies IRC Welwyn



WBC-RC Series

Environmental Data (Resistor)

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

Environmental Data (Capacitor)

Test	Method	Max ∆C	
Thermal Shock	MIL-STD-202 Method 107 Test condition F	±0.25% + 0.25pF max	
Moisture Resistance	MIL-STD-202 Method 106	±1.0% + 0.25pF max	
Short Time Overload	+25°C, 5 seconds 1.5 X rated voltage	±0.25% + 0.25pF max	
Life at Elevated Temperature	MIL-STD-202 Method 108 125°C, 1000 hours	±0.25% + 0.25pF max	
High Temperature Exposure	100 hours @ 150°C ambient	±0.25% + 0.25pF max	

Ordering Data

WBD - DSOT23V - 4	70 - K - 470 - M Absolute Capacitance Tolerance M = ±20%
Style DSOT23V = AC terminator DSOT23T = T-Filter DSOT23R = Tapped Filter	•••••••Capacitance Code (C) 3-Digit Capacitance Code Ex: 470 = 47pF
Resistance Code (R) · · · · · · · · · · · · · · · · · · ·	M = ±20%; K = ±10%

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.

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www.ttelectronics.com/resistors