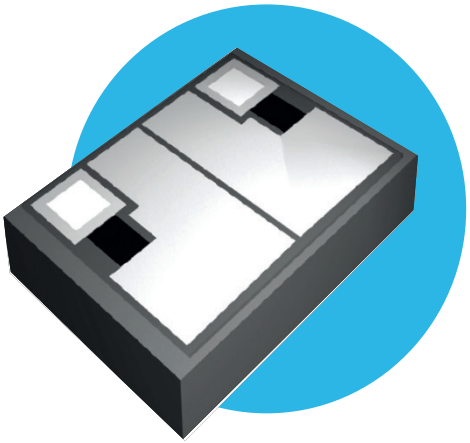
Wire Bondable Resistor/Capacitor Circuits



WBC-RC Series

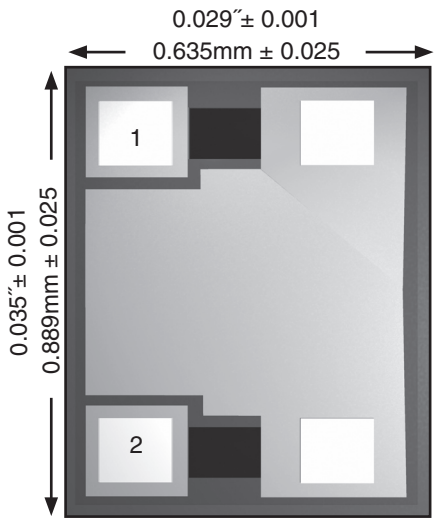
- Integrated resistor and capacitor
- Proven IRC TaNSil® technology
- 3 types - AC Terminator, Tapped and T-Filter

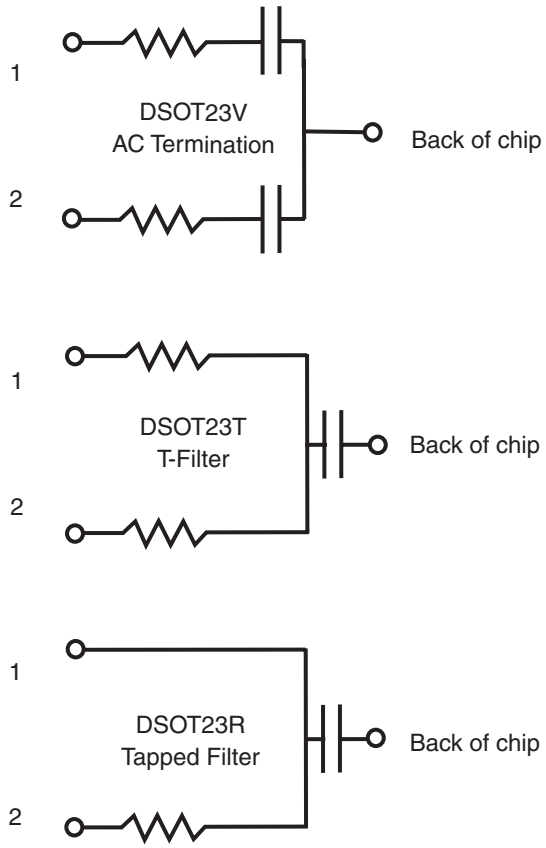
All parts are Pb-free and comply with EU Directive 2011/65/EU amended by (EU) 2015/863 (RoHS3)

Electrical Data

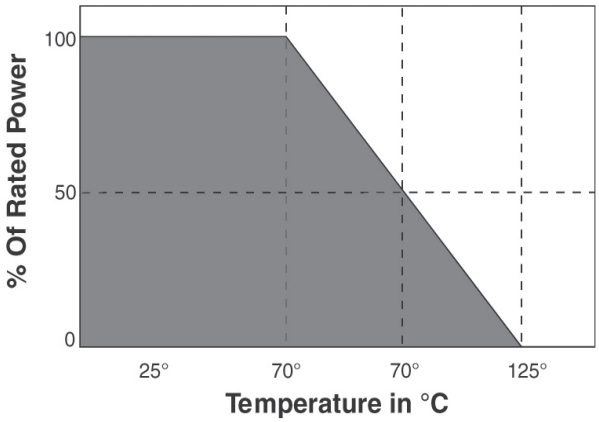
		AC Termination	T-Filter	Tapped Filter
Resistance Value		47Ω	100Ω	33Ω
Capacitance Value		47pF	80pF	47pF
Absolute Tolerance	**Resistance**	±10%		
	Capacitance	±20%		
Absolute TCR	**Resistance**	±150ppm/°C		
	Capacitance	±200ppm/°C		
Package Power Rating		250mW		
Resistor Element Power Rating		125mW		
Capacitor Breakdown Voltage		25V		
Operating Temperature		-55°C to +125°C		
Resistor Noise		<-25dB		
Substrate Material		Silicon		
Substrate Thickness		0.010˝ ±0.001 (0.254mm ±0.025)		
Bond Pad Metallization		Aluminum: 10KÅ minimum		
Backside		3KÅ Gold minimum		
Passivation		Silicon Dioxide or Silicon Nitride		

Physical and Schematic Data





Power Derating Data



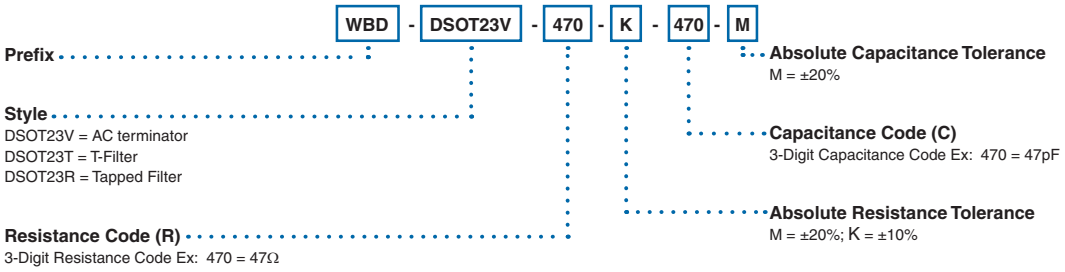
Environmental Data (Resistor)

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%

Environmental Data (Capacitor)

Test	Method	Max ΔC
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



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.