Wire Bondable Resistor/Capacitor Circuits

TT electronics

WBC-RC Series

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

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		

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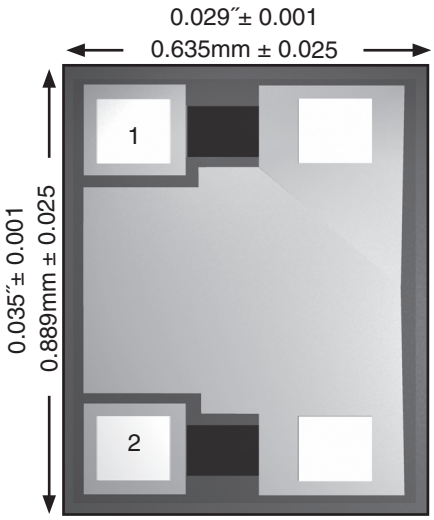
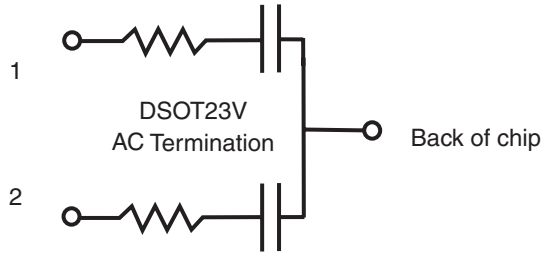
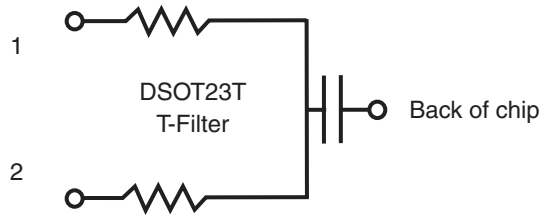
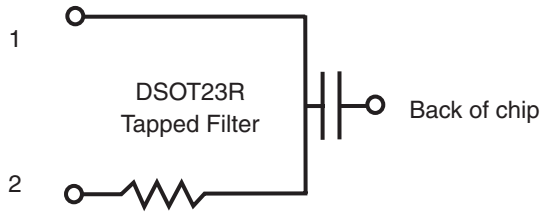
Physical and Schematic Data

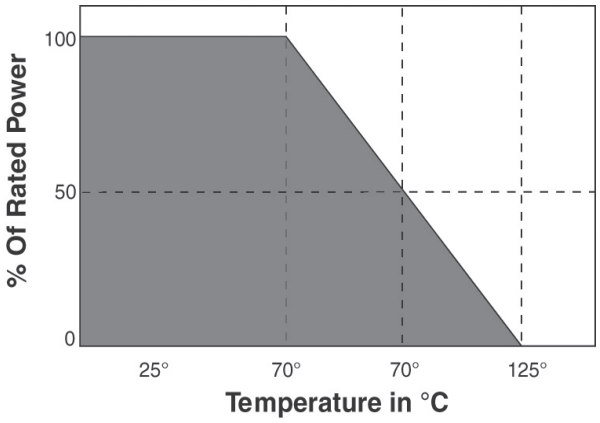








Power Derating Data



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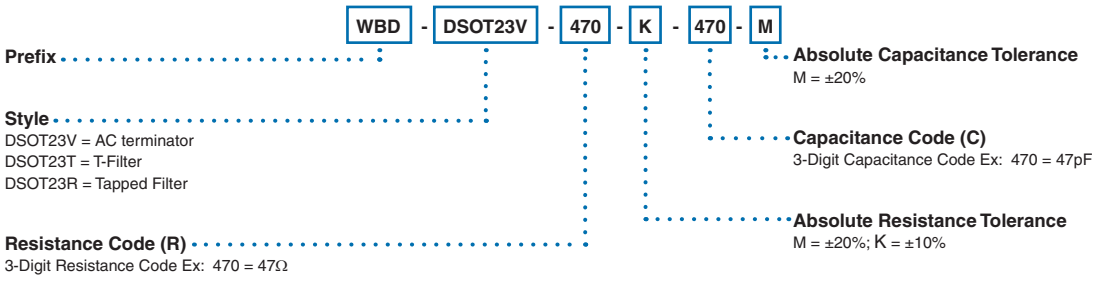
Environmental Data (Resistor)

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.