

100W BeO Flanged Termination

Meets Thermal Shock Requirements of MIL-STD-202-107 Condition F3 T50R0-100-29E



T50R0-100-29E Features:

- TCE Matched, All Brazed Construction
- RoHS Compliant
- Customer Defined Testing Available
- · Enhanced Mechanical Strength
- Covered Resistor Element
- ±5% Resistor Tolerance

T50R0-100-29E Parameters:

Operating Frequency: DC - 4GHz
Rated Power: 100W*
Return Loss (Typical)**: 20dB or Better

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Resistor Construction: Thick Film on BeO Attached with AuGe Braze

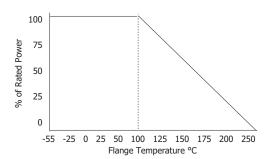
Flange Construction: Copper Tungsten

Lead Construction: Copper Attached with AuGe Braze

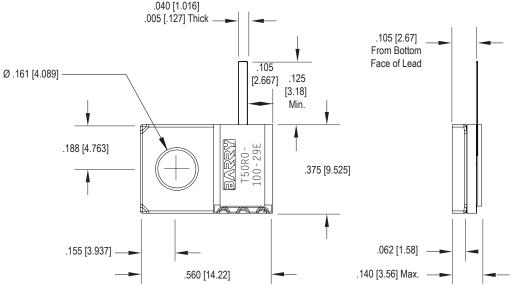
Operating Temperature: -55 to +250°C

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T50R0-100-29E Power Derating Curve



T50R0-100-29E Dimensions:





Dimensions in inches [mm]
Tolerance is ± 0.010 [0.254]
unless otherwise stated

- * Rating based on ≤100°C constant flange temperature
 ** In a matched, continious 50Ω system with proper
 workmanship
- workmanship

 *** Other values and tolerances available. Contact factory.

Ordering Information:



Barry Industries reserves the right to change part number and/or process without notification.



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T50R0-100-29E Reliability Data:

Barry Industries

Parameter:	Test Condition:	Results:
Short Time Overload	Apply 1.1x Rated Power for 5 Seconds.	≤ 2.0% Resistance Shift
Rated Load Life	Apply Full Power at 100°C ±2°C 90 Minutes on/ 30 Minutes off. Repeat for 1000 hours	≤ 2.0% Resistance Shift
Moisture Resistance	MIL-PRF-55342 para.4.8.9 95% RH, 25°C - 65°C	≤ 2.0% Resistance Shift
Resistance to Soldering Heat (Lead)	MIL-STD-202 Method 210 Test Condition "A"	≤ 2.0% Resistance Shift
Resistance to Soldering Heat (Assembly)	MIL-STD-202 Method 210 Test Condition "J"	≤ 2.0% Resistance Shift
Terminal Strength	MIL-STD-202 Method 211 Test Condition "A" 3lbs. Test Condition "B" 5 bends	No Significant Abnormality (Visual)
Solderability (Lead only)	MIL-STD-202 Method 208 Test C	>95% Covered
High Temperature Storage	125°C ±2°C for 500 Hours	1.) ≤ 2.0% Resistance Shift2.) No Significant Abnormality (Visual)
Thermal Shock	-65°C to +150°C Each Cycle 30 Minutes for 500 Hours	1.) ≤ 2.0% Resistance Shift2.) No Significant Abnormality (Visual)

For further detail on the advantages of using TCE Matched Copper-Tungsten flange mount devices from Barry Industries please refer to the Application Note 'Finite Element Analysis of a High Power Resistor'. This document can be found on the Barry Industries website: www.barryind.com.

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