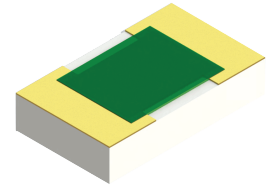


**RS0503ZZ-XXXXWN-90 Features:**

- Single-Sided (Flip-Chip) Terminal Configuration
- Solder, Epoxy or Wirebondable Terminals
- Customer Defined Testing Available
- RoHS Compliant or SnPb Available
- Non-Magnetic Available
- Tape & Reel (Film Side Down) and Waffle Pack Available (Standard is bulk)

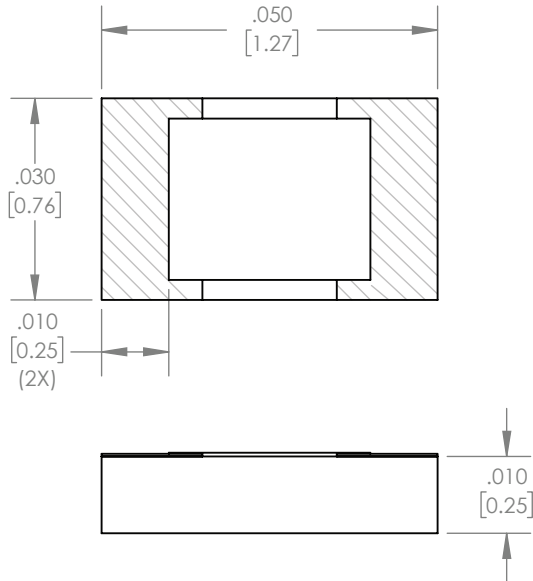


**RS0503ZZ-XXXXWN-90 Parameters:**

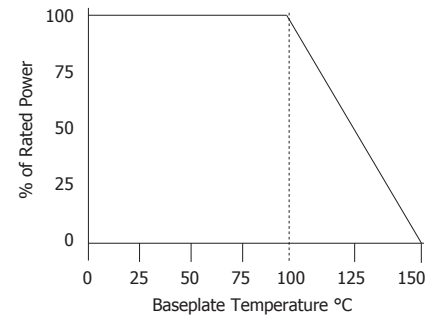
Resistance Range: 0.5Ω - 1MΩ  
 Rated Power:\* 150mW  
 Construction: Thick Film on 0.010" Al<sub>2</sub>O<sub>3</sub>  
 Operating Temperature: -55 to +150°C

\* Rating based on ≤100°C constant baseplate temperature

**RS0503ZZ-XXXXWN-90 Dimensions:**



**RS0503ZZ-XXXXWN-90 Power Derating Curve**



Dimensions in inches [mm]  
 Tolerance is ± 0.005 [0.13]  
 unless otherwise stated

**Ordering Information:**

**Example Part Number: RS0503CT-50R0JN-90**

RS	0503	ZZ	-	XXXX	W	N	-	90	UU
Prefix for Resistor w/ Single-Sided Terminals				Value Code	Tolerance	Normal Inspection Contact factory for additional options		Substrate 90 - 0.010" Al <sub>2</sub> O <sub>3</sub>	Packaging Blank - Bulk WP - Waffle Pack TRD - Tape & Reel
Size 0503				50R0 - 50Ω 1000 - 100Ω 1001 - 1KΩ	1002 - 10KΩ 1003 - 100KΩ 1004 - 1MΩ	F - 1% G - 2% J - 5%			
Terminal Metallization				RoHS	Magnetic	Solder	Epoxy	Wirebond	
AS - Tin Lead over Platinum Palladium Gold				No	No	Yes	No	No	
CB - Tin Lead over Nickel over Silver				No	Yes	Yes	No	No	
CC - 100% Matte Tin over Copper over Silver				Yes	No	Yes	No	No	
CT - 100% Matte Tin over Nickel over Silver				Yes	Yes	Yes	No	No	
GA - Gold				Yes	No	No	Yes	Yes	

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

**RS0503ZZ-XXXXWN-90 Reliability Specifications:**

Parameter:	Test Condition:	Results:
Short Time Overload	Apply 1.1x Rated Power for 5 Seconds.	≤ 5.0% Resistance Shift
Rated Load Life	Apply 1/2 Power Under 40°C ±2°C 90 Minutes on/ 30 Minutes off. Repeat for 100 hours	≤ 5.0% Resistance Shift
Moisture Resistance	MIL-PRF-55342 para 4.8.9 95% RH, 25°C - 65°C	≤ 5.0% Resistance Shift
Resistance to Soldering Heat	MIL-STD-202 Method 210 and MIL-PRF-55342 Para 4.8.8.1	≤ 5.0% Resistance Shift
Resistance to Bonding Exposure	MIL-PRF-55342 Para 4.8.8.2	≤ 5.0% Resistance Shift
Solderability	MIL-PRF-55342 Para 4.8.12	>95% Covered
High Temperature Storage	125°C ±2°C for 500 Hours	1.) ≤ 5.0% Resistance Shift 2.) No Significant Abnormality (Visual)
Thermal Shock	-65 to +125 30 Minutes Dwell, 5 Cycles	1.) ≤ 5.0% Resistance Shift 2.) No Significant Abnormality (Visual)

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