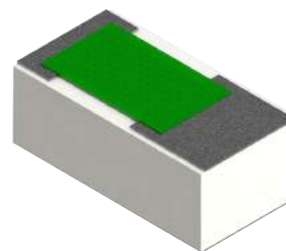


### TV0402ZZ-XXXXWN-AA Features:

- Solder, Epoxy or Wirebondable Terminals
- Al<sub>2</sub>O<sub>3</sub> or BeO Substrate
- Customer Defined Testing Available
- Tape & Reel and Waffle Pack Available (Standard is Bulk)

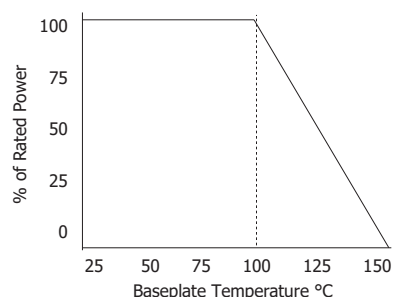
### TV0402ZZ-XXXXWN-AA Parameters:

Operating Frequency:	DC - 26GHz
Rated Power*:	
0.010" Al <sub>2</sub> O <sub>3</sub> Substrate:	1.5W
0.015" Al <sub>2</sub> O <sub>3</sub> Substrate:	1W
0.015" BeO Substrate:	2.5W
Operating Voltage (DC):	50V
Return Loss (Typical)**:	15dB or Better
Standard Impedance:	50Ω***
Resistor Tolerance:	To ±1%***
Resistor Construction:	Thick Film
Operating Temperature:	-55 to +150°C



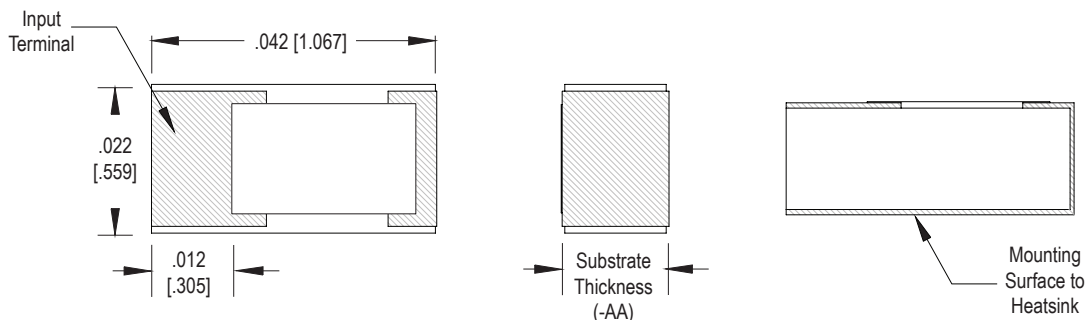
= Actual Size

### TV0402ZZ-XXXXWN-AA Power Derating Curve



\* Rating based on ≤100°C constant baseplate temperature  
 \*\* In a matched, continuous 50Ω system with proper workmanship  
 \*\*\* Other values and tolerances available. Contact factory.

### TV0402ZZ-XXXXWN-AA Dimensions:



Dimensions in inches [mm]  
 Tolerance is ± 0.003 [0.076]  
 unless otherwise stated

### Ordering Information:

TV	0402	ZZ	-	XXXX	W	N	-	AA	UU
Prefix for Chip Termination	Size	Value Code		Value Code	Tolerance	Inspection Level		Substrate	Packaging
0402	1R00 - 1Ω 10R0 - 10Ω 50R0 - 50Ω	1000 - 100Ω 1001 - 1KΩ 1002 - 10KΩ		F - 1% G - 2% J - 5%	N - Normal		90 - 0.010" Al <sub>2</sub> O <sub>3</sub> 91 - 0.015" Al <sub>2</sub> O <sub>3</sub> 96 - 0.015" BeO	Blank - Bulk TR - Tape & Reel WP - Waffle Pack	

### Example: TV0402CT-50R0JN-90TR

Terminal Metallization	RoHS	Magnetic	Solder	Epoxy	Wirebond
AS - Sn62 Tin Lead over Platinum Gold	No	No	Yes	No	No
BA - Palladium Silver	Yes	No	No	Yes	No
CB - Sn62 Tin Lead over Nickel over Silver	No	Yes	Yes	No	No
CT - 100% Matte Tin over Nickel over Silver	Yes	Yes	Yes	No	No
GA - Gold (Al <sub>2</sub> O <sub>3</sub> only. Use JA for BeO)	Yes	No	No	Yes	Yes
JA - Gold over Platinum Palladium Gold (BeO only)	Yes	No	No	Yes	Yes
EA - Gold Input with Palladium Silver Ground (Al <sub>2</sub> O <sub>3</sub> only)	Yes	No	Yes (GND Only)	Yes	Yes (IN Only)
FA - Gold Input with Palladium Gold Ground (Al <sub>2</sub> O <sub>3</sub> only)	Yes	No	Yes (GND Only)	Yes	Yes (IN Only)

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

**TV0402ZZ-XXXXWN-AA 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	-5°C to +150°C 30 Minutes Dwell, 5 Cycles	1.) ≤ 5.0% Resistance Shift 2.) No Significant Abnormality (Visual)

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