

Coaxial Bias-Tee

ZNBT-60-1W+

50Ω Wideband 2.5 to 6000 MHz



Maximum Ratings

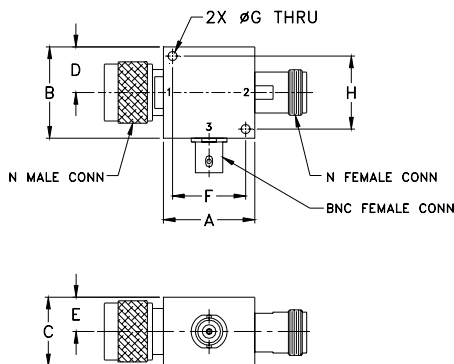
| | |
|-----------------------|----------------|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature | -55°C to 100°C |
| Input Current | 500mA |
| RF Power | 30 dBm |
| Voltage at DC Port | 30V |

Permanent damage may occur if any of these limits are exceeded.

Coaxial Connections

| | |
|-------|-------------------|
| RF | 1 (N-Type male) |
| RF&DC | 2 (N-Type female) |
| DC | 3 (BNC female) |

Outline Drawing



Outline Dimensions (inch/mm)

| A | B | C | D | E | F | G | H | wt |
|-------|-------|-------|-------|-------|-------|------|-------|-------|
| 1.25 | 1.25 | .94 | .63 | .47 | 1.00 | .125 | 1.000 | grams |
| 31.75 | 31.75 | 23.88 | 16.00 | 11.94 | 25.40 | 3.18 | 25.40 | 117.0 |

Features

- wideband coverage, 2.5 to 6000 MHz
- low insertion loss, 0.6 dB typ.
- high power, 1W & current, 0.5A

Applications

- biasing amplifiers
- biasing of laser diodes
- biasing of active antennas
- test accessory

Bias Tee Electrical Specifications

| MODEL NO. | FREQ. (MHz) | | INSERTION LOSS* (dB) | | | | | | ISOLATION*(dB) (RF port to DC port) (RF&DC port to DC port) | | | | | | VSWR** (:1) | | | | | |
|------------|-------------|------|----------------------|----------------|------|------|------|------|---|------|------|------|------|------|-------------|------|------|------|------|------|
| | | | L | | M | | U | | L | | M | | U | | L | | M | | U | |
| | | | f _l | f _h | Typ. | Max. | Typ. | Max. | Typ. | Max. | Typ. | Min. | Typ. | Min. | Typ. | Min. | Typ. | Max. | Typ. | Max. |
| ZNBT60-1W+ | 2.5 | 6000 | 0.2 | 0.9 | 0.6 | 2.0 | 1.6 | 2.2 | 75 | 45 | 45 | 25 | 35 | 20 | 1.1 | 1.5 | 1.1 | 1.3 | 1.35 | 1.6 |

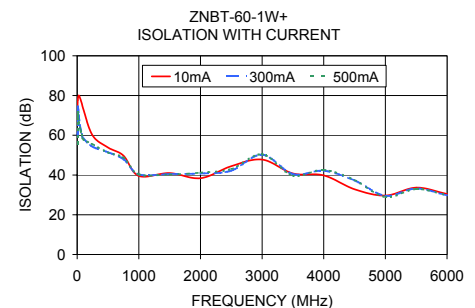
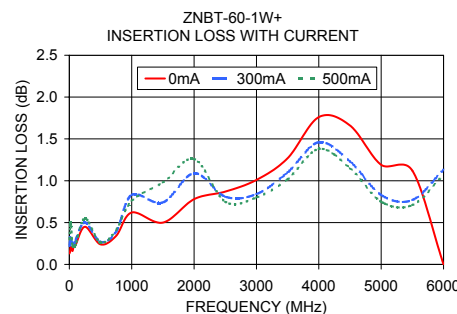
L= 2.5 - 25 MHz M= 25 - 3000 MHz U= 3000 - 6000 MHz

* Insertion Loss and Isolation are guaranteed up to 20 dBm-RF power and 200mA DC current.

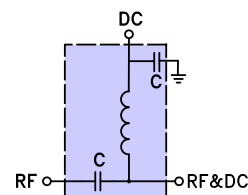
** VSWR measured with open and short at DC port.

Typical Performance Data

| Freq. (MHz) | Pin (dBm) | INSERTION LOSS (dB) with current | | | | | | | ISOLATION (dB) (Pin=-10dBm) with current | | | | | | |
|-------------|-----------|----------------------------------|-------|-------|-------|-------|-------|-------|--|-------|-------|-------|-------|--|--|
| | | 0mA | 100mA | 200mA | 300mA | 400mA | 500mA | 10mA | 100mA | 200mA | 300mA | 400mA | 500mA | | |
| 2.50 | 30.00 | 0.13 | 0.23 | 0.21 | 0.22 | 0.31 | 0.30 | 68.50 | 62.97 | 60.56 | 58.97 | 57.44 | 55.90 | | |
| 10.00 | 29.97 | 0.15 | 0.20 | 0.24 | 0.32 | 0.30 | 0.42 | 77.66 | 79.59 | 76.96 | 74.04 | 72.52 | 71.45 | | |
| 25.00 | 29.86 | 0.21 | 0.21 | 0.22 | 0.29 | 0.29 | 0.49 | 80.02 | 70.90 | 70.60 | 69.99 | 68.07 | 66.79 | | |
| 50.00 | 30.01 | 0.16 | 0.21 | 0.28 | 0.25 | 0.23 | 0.22 | 78.47 | 64.54 | 64.38 | 63.82 | 63.20 | 62.99 | | |
| 75.00 | 30.09 | 0.23 | 0.25 | 0.21 | 0.24 | 0.29 | 0.21 | 76.00 | 61.41 | 61.08 | 60.63 | 60.45 | 60.05 | | |
| 100.00 | 30.16 | 0.23 | 0.29 | 0.30 | 0.29 | 0.30 | 0.23 | 73.21 | 59.27 | 58.85 | 58.49 | 58.33 | 57.99 | | |
| 250.00 | 29.95 | 0.45 | 0.48 | 0.46 | 0.50 | 0.42 | 0.55 | 59.95 | 53.49 | 53.94 | 54.27 | 54.90 | 55.48 | | |
| 500.00 | 29.97 | 0.24 | 0.28 | 0.25 | 0.27 | 0.28 | 0.26 | 53.84 | 51.56 | 51.59 | 51.49 | 51.45 | 51.37 | | |
| 750.00 | 30.00 | 0.34 | 0.43 | 0.39 | 0.39 | 0.37 | 0.41 | 49.76 | 48.15 | 48.03 | 47.97 | 47.87 | 48.75 | | |
| 1000.00 | 30.12 | 0.62 | 0.67 | 0.77 | 0.83 | 0.82 | 0.76 | 39.51 | 40.38 | 40.33 | 40.30 | 40.34 | 40.39 | | |
| 1500.00 | 30.11 | 0.50 | 0.53 | 0.73 | 0.74 | 0.82 | 0.98 | 40.98 | 40.70 | 40.59 | 40.52 | 40.38 | 40.28 | | |
| 2000.00 | 30.07 | 0.78 | 0.81 | 1.07 | 1.09 | 1.15 | 1.26 | 38.39 | 40.41 | 40.59 | 40.79 | 41.03 | 41.19 | | |
| 2500.00 | 30.33 | 0.87 | 0.73 | 0.76 | 0.81 | 0.78 | 0.75 | 44.44 | 43.39 | 43.34 | 42.18 | 43.14 | 43.02 | | |
| 3000.00 | 30.23 | 1.01 | 0.81 | 0.83 | 0.84 | 0.81 | 0.80 | 47.79 | 50.29 | 50.00 | 50.25 | 50.35 | 50.41 | | |
| 3500.00 | 29.94 | 1.27 | 1.07 | 1.09 | 1.10 | 1.06 | 1.02 | 40.78 | 40.57 | 40.01 | 40.48 | 39.65 | 39.75 | | |
| 4000.00 | 29.62 | 1.76 | 1.54 | 1.51 | 1.46 | 1.41 | 1.38 | 39.82 | 41.94 | 42.51 | 42.21 | 42.62 | 42.60 | | |
| 4500.00 | 30.06 | 1.66 | 1.29 | 1.28 | 1.23 | 1.18 | 1.15 | 32.83 | 36.48 | 36.51 | 37.26 | 37.33 | 37.50 | | |
| 5000.00 | 30.07 | 1.19 | 0.92 | 0.87 | 0.83 | 0.79 | 0.75 | 29.66 | 29.37 | 29.59 | 29.56 | 29.33 | 28.96 | | |
| 5500.00 | 29.53 | 1.12 | 0.82 | 0.79 | 0.77 | 0.72 | 0.71 | 33.67 | 33.30 | 33.28 | 33.22 | 33.02 | 32.93 | | |
| 6000.00 | 30.02 | 1.54 | 1.17 | 1.13 | 1.13 | 1.10 | 1.07 | 30.44 | 29.81 | 29.89 | 29.76 | 29.58 | 29.95 | | |



Electrical Schematic



Mini-Circuits
 ISO 9001 ISO 14001 AS 9100 CERTIFIED
 The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com
 I/F/RF MICROWAVE COMPONENTS

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