

# Coaxial Bias-Tee

75Ω Wideband 1 to 3000 MHz

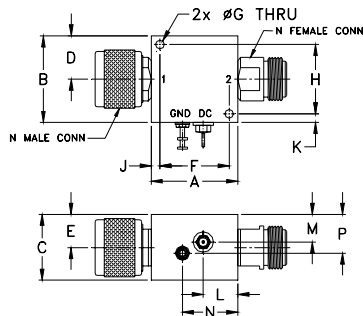
## Maximum Ratings

|                                                                 |                |
|-----------------------------------------------------------------|----------------|
| Operating Temperature                                           | -55°C to 100°C |
| Storage Temperature                                             | -55°C to 100°C |
| RF Power                                                        | 30 dBm max.    |
| Voltage at DC port                                              | 25 V max.      |
| Input Current                                                   | 200 mA         |
| Permanent damage may occur if any of these limits are exceeded. |                |

## Coaxial Connections

|         |                    |
|---------|--------------------|
| RF      | 2 (N-female)       |
| RF & DC | 1 (N-male)         |
| DC      | (feed-through pin) |
| GROUND  | GROUND             |

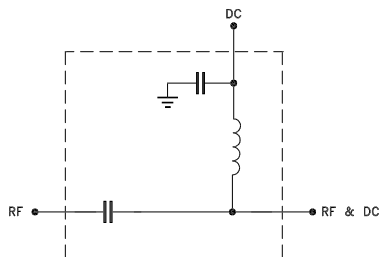
## Outline Drawing



## Outline Dimensions (inch mm)

|       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|
| A     | B     | C     | D     | E     | F     | G     | H     |
| 1.25  | 1.25  | .95   | .63   | .47   | 1.00  | .125  | 1.000 |
| 31.75 | 31.75 | 24.13 | 16.00 | 11.94 | 25.40 | 3.18  | 25.40 |
| J     | K     | L     | M     | N     | P     | wt    |       |
| .13   | .13   | .50   | .40   | .80   | .56   | grams |       |
| 3.18  | 3.18  | 12.70 | 10.16 | 20.32 | 14.22 | 117.0 |       |

## Electrical Schematic



## Features

- wideband, 1 to 3000 MHz
- low insertion loss, 0.45 dB typ.
- feed through terminal per DC port
- excellent VSWR, 1.18:1 typ.

## Applications

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

# ZFBT-33W-75-FT+



CASE STYLE: K1486

|            |                 |
|------------|-----------------|
| Connectors | Model           |
| N-Type     | ZFBT-33W-75-FT+ |

**+RoHS Compliant**

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

## Electrical Specifications at 25°C

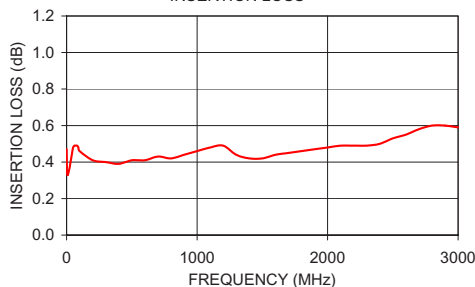
| Parameter                           | Frequency (MHz) | Min. | Typ. | Max. | Unit |
|-------------------------------------|-----------------|------|------|------|------|
| Frequency Range                     |                 | 1    |      | 3000 | MHz  |
| Insertion Loss <sup>1</sup>         | 1-10            | —    | 0.40 | 0.8  | dB   |
|                                     | 10-1500         | —    | 0.45 | 0.9  |      |
|                                     | 1500-3000       | —    | 0.50 | 1.1  |      |
| VSWR <sup>1</sup>                   | 1-10            | —    | 1.10 | 1.3  | :1   |
|                                     | 10-1500         | —    | 1.18 | 1.38 |      |
|                                     | 1500-3000       | —    | 1.18 | 1.38 |      |
| DC Resistance, DC to RF and DC port |                 | —    | 1.0  | —    | ohms |

1. Specifications and typical performance are relevant to input RF power up to +20dBm and DC Current up to 200mA.

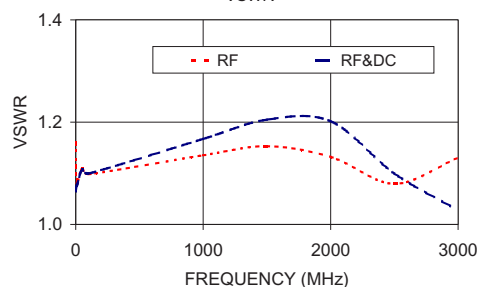
## Typical Performance Data

| Frequency (MHz) | INSERTION LOSS (dB) | VSWR (:1) |       |
|-----------------|---------------------|-----------|-------|
|                 |                     | RF        | RF&DC |
| 1               | 0.47                | 1.16      | 1.06  |
| 5               | 0.34                | 1.08      | 1.07  |
| 10              | 0.33                | 1.08      | 1.08  |
| 50              | 0.48                | 1.11      | 1.11  |
| 100             | 0.46                | 1.10      | 1.10  |
| 1000            | 0.46                | 1.14      | 1.17  |
| 1500            | 0.42                | 1.15      | 1.20  |
| 2000            | 0.48                | 1.13      | 1.20  |
| 2500            | 0.53                | 1.08      | 1.10  |
| 3000            | 0.59                | 1.13      | 1.03  |

ZFBT-33W-75-FT+  
INSERTION LOSS



ZFBT-33W-75-FT+  
VSWR



### Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.  
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.  
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