

1506 Bias-T



BT2000

15 GHz Bias Tee

The bias tee is a broadband, coaxial bias insertion tee and DC blocking capacitor. It was designed to have a very low cutoff frequency of only 5 kHz. It passes fast rise pulses with a minimum of waveform distortion. Its rise time is 23 ps. The frequency response is very flat, and the -3 dB bandwidth extends from 5 kHz to 15 GHz. It is supplied with a 1 mH choke and terminal strip for connection to the DC bias.

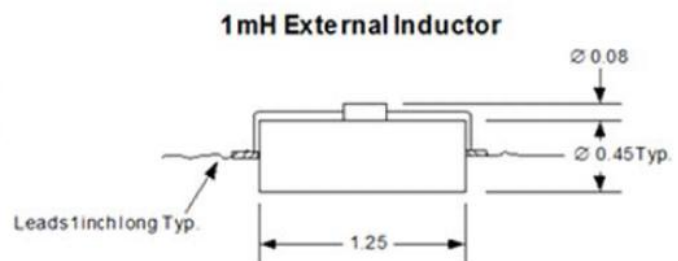
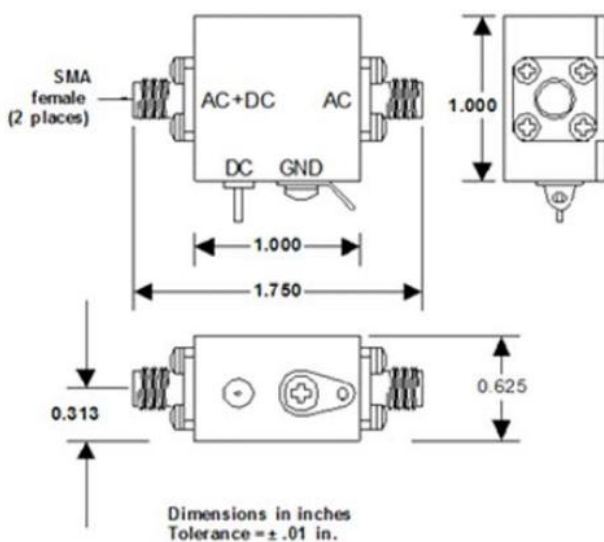
FEATURES

- Low Insertion Loss
- High Power
- Non-Resonant
- Compact Size

USE IN

- Wideband Amplifier
- Fiber Optic Communication
- Laser Driven
- Optical Modulator Drive
- GPS Active Antenna

MECHANICAL DRAWING



Note: The external inductor has an irregular shape. This sketch shows the maximum dimensions of the outline.

Order notes to our customers: The default parameters are as follows. For special needs, please contact sales.
1) Connector FC/APC, 900 um, 1 m by default for all devices except for high power devices.
2) Slow axis working, fast axis blocked, connector key is aligned to slow axis by default for PM devices.

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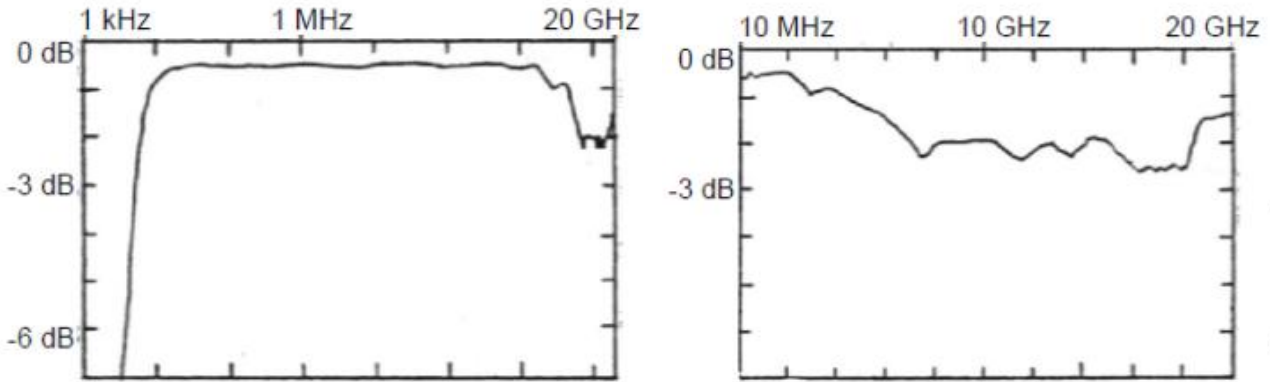
Impedance	50 ohms typ.
Upper 3 dB Frequency	10 GHz min.; 15 GHz typ. min.
Lower 3 dB Frequency (12 kHz W/O Inductor)	5 kHz typ.
Rise Time (10% to 90%)	23 ps typ.; 35 ps max.
Insertion Loss	0.5 dB typ.
Input (AC) Return Loss (f=100 MHz)	23 dB typ.
Refl. Coefficient (35 ps TDR) (t > 200 ps)	-5% typ.
DC Voltage	50 V max.
DC Current	500 mA max.
Capacitance (-50%, +80%)	0.44 μ F typ.
Inductance (\pm 30%)	1.34 mH typ.
Resistance	1.5 ohms typ.
RF Power	2 W max.
Isolation	30 dB typ.
DC Path Bandwidth	6 kHz typ.
RF Connectors	SMA Jacks (f)
DC Connector	Solder Pin

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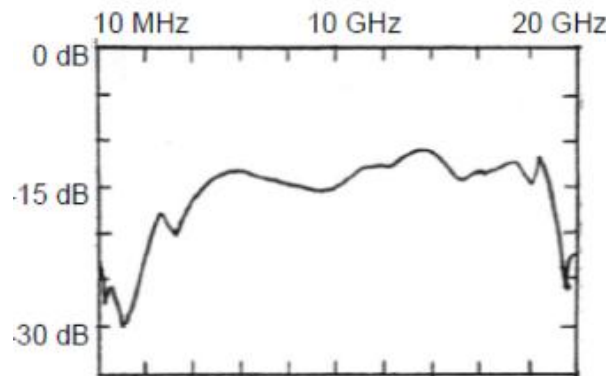
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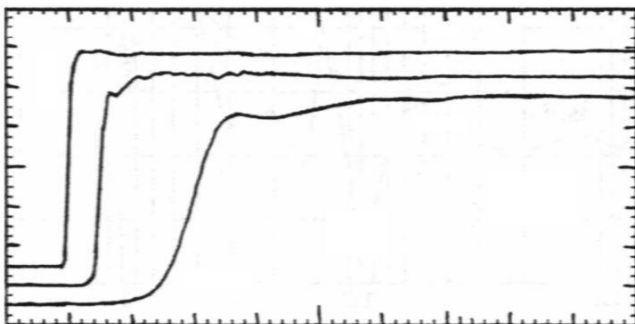
TYPICAL PERFORMANCE



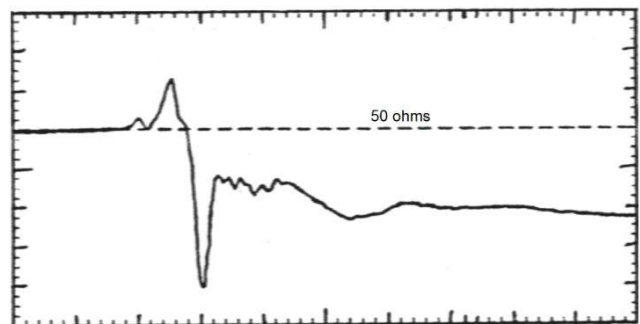
1 dB/div log plot to 20 GHz Insertion Loss



5 dB/div log plot to 20 GHz Return Loss



Top to bottom: 500 ps/div, 100 ps/div,
and 20 ps/div.
Response to 15 ps rise time input step



2.5% rho/div and 200 ps/div.
35 ps TDR of AC port

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