



LEAD-FREE / RoHS-COMPLIANT

MINIATURE SURFACE-MOUNT BIAS-TEE

BTL-0026SMG

Features

- Frequency Range: 500 kHz to 26 GHz
- Frequency Range with [External Coil](#): 5 kHz to 26 GHz
- 1 Watt RF Power Handling
- DC Current 500 mA
- Miniature Surface Mount Package
- Lead Free Assembly
- [Reflow Solderable](#)

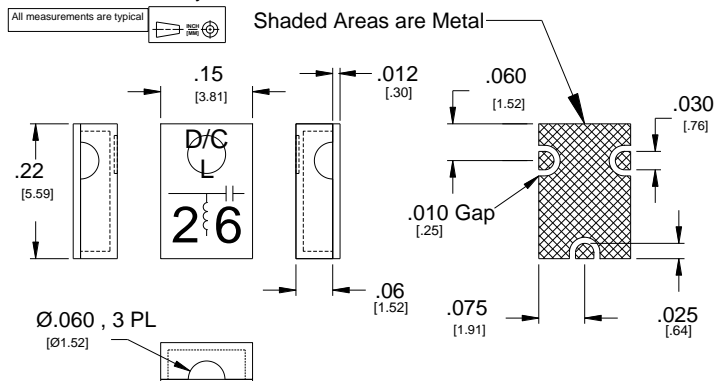


Electrical Specifications - Specifications guaranteed from -55 to +100°C, measured in a 50-Ohm system

| Parameter | Frequency Range | Min | Typ | Max |
|------------------------|-------------------|-----|------|-----|
| Insertion Loss (dB) | 500 kHz to 5 MHz | | 1 | 6 |
| | 5 MHz to 20 GHz | | 1 | 2 |
| | 20 GHz to 26 GHz | | 1.5 | 2.5 |
| DC Current (mA) | 500 kHz to 26 GHz | | | 500 |
| DC Resistance (Ohms) | | | <1.5 | |
| Capacitance (uF) | | | 1 | |
| Inductance (uH) | | | 17 | |
| DC Port Isolation (dB) | | | 35 | |
| DC Voltage Maximum (V) | | | | 30 |
| RF Power Maximum (W) | | | | 1 |

| Model ¹ | Description |
|--------------------------------|---|
| BTL-0026SMG-1 BTL-0026SMG-2 | 500 kHz - 26 GHz Bias Tee, Surface Mount, LEAD-FREE/RoHS COMPLIANT |

¹Default is -2 when not specified.
Connectorized test fixtures available. Consult factory.



Substrate material is 12-mil thick Rogers 4003, ½ Oz Electrodeposited Cu both sides.
ENIG, Gold 2-8 μ-inches, over solderable electroplated nickel, 100-200 μ-inches per QQ-N-290A
[Click here for suggested PCB layout.](#)

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Typical Performance

Insertion Loss data was taken using TRL de-embedding procedures.

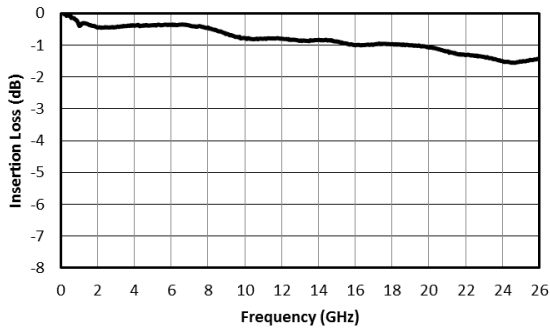


Fig. 1. Insertion loss.

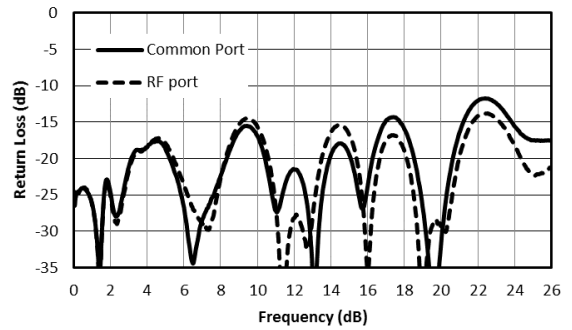


Fig. 2. Return loss

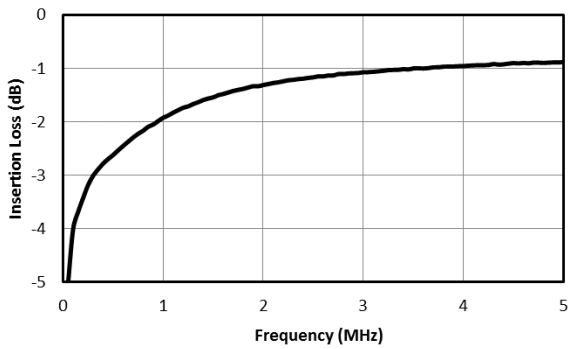


Fig. 3. Low Frequency Insertion Loss

Typical Performance vs Bias Current at Low frequencies

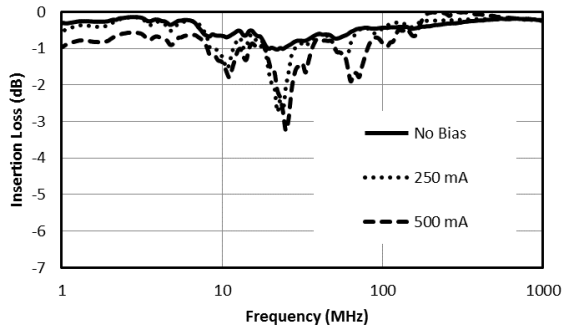


Fig. 4. Insertion loss vs Bias Current.

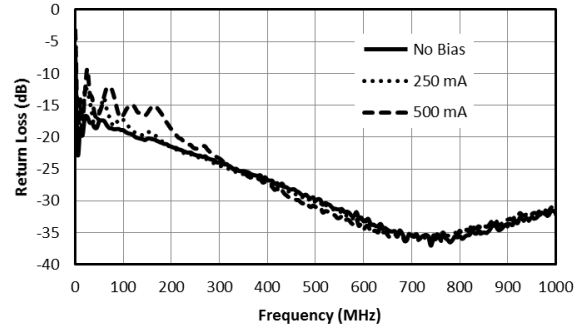


Fig. 5. Common Return Loss vs Bias Current

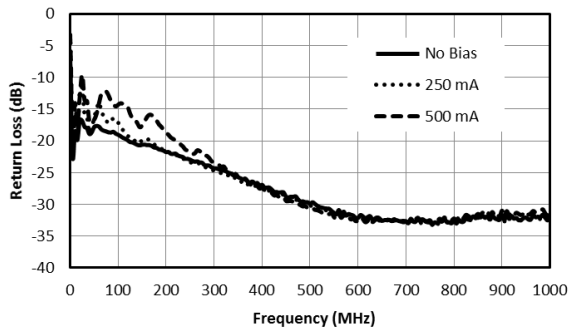


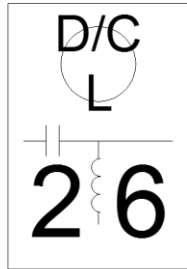
Fig. 6. RF Return Loss vs Bias Current

MINIATURE SURFACE MOUNT BIAS TEE

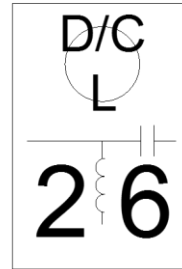
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Port Configuration Option



BTL-0026SMG-1



BTL-0026SMG-2

Revision History

| Revision code | Revision Date | Comment |
|---------------|---------------|---------------------------|
| - | 1/2021 | Datasheet Initial Release |

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