

LEAD-FREE / RoHS-COMPLIANT

MINIATURE SURFACE MOUNT BIAS TEE

BT-0026SMG

Features

- Frequency Range 20 MHz to 26 GHz
- 1 Watt RF Power Handling
- DC Current 500 mA
- Miniature Surface Mount Package
- [Reflow Solderable](#)

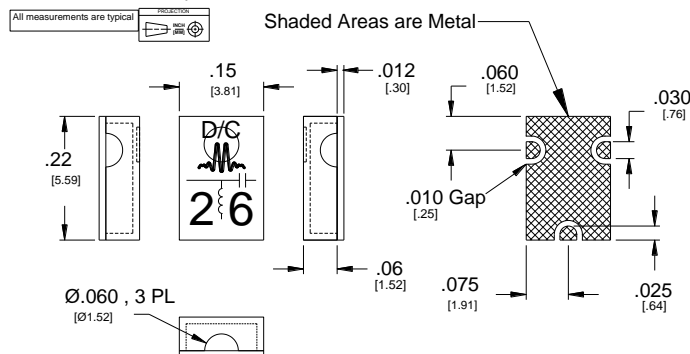


Electrical Specifications - Specifications guaranteed from -55 to +100°C, measured in a 50-Ohm system

Parameter	Frequency Range	Min	Typ	Max
Insertion Loss (dB)	20 MHz to 30 MHz		2.5	
	30 MHz to 100 MHz		1	2.5
	100 MHz to 20 GHz		1	2
	20 GHz to 26 GHz		1.5	2.5
DC Current (mA)	20 MHz to 26 GHz			500
DC Resistance(Ohms)			<1	
Capacitance (uF)			1	
Inductance (nH)			320	
DC Port Isolation (dB)			40	
DC Voltage Maximum (V)				35
RF Power Maximum (W)				1

Model Number ¹	Description
BT-0026SMG-1 BT-0026SMG-2	20 MHz - 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.

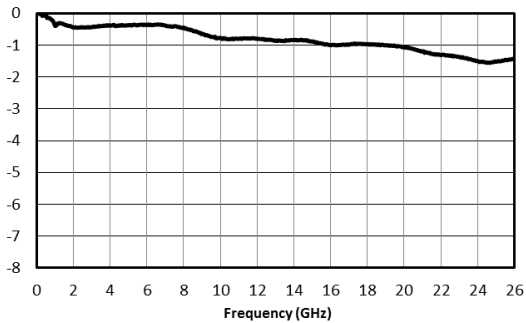


Fig. 1. RF insertion loss.

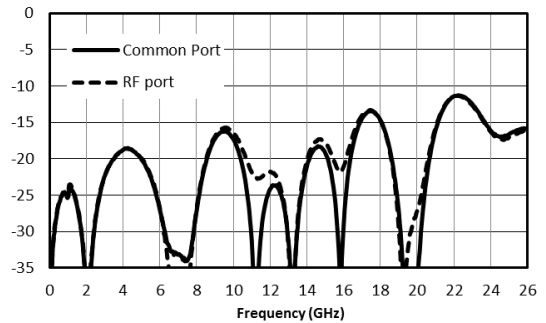


Fig. 2. Return loss

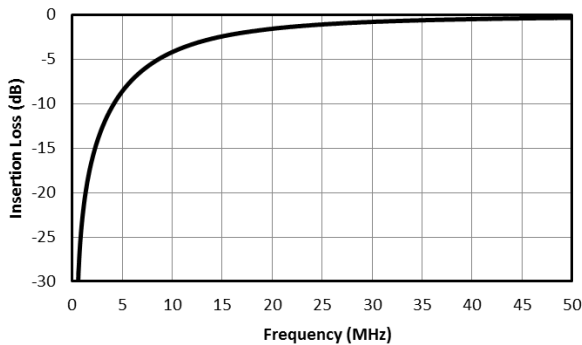


Fig. 3. Low frequency RF response

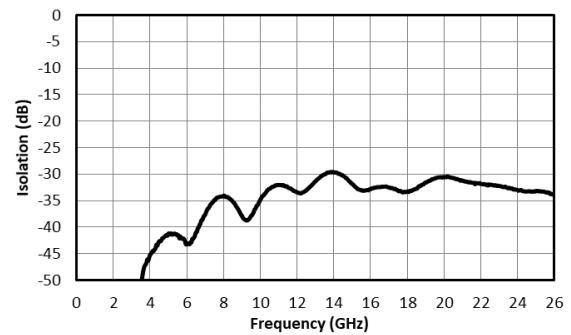


Fig. 4. DC- RF Isolation

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Typical Performance vs Bias Current at Low frequencies

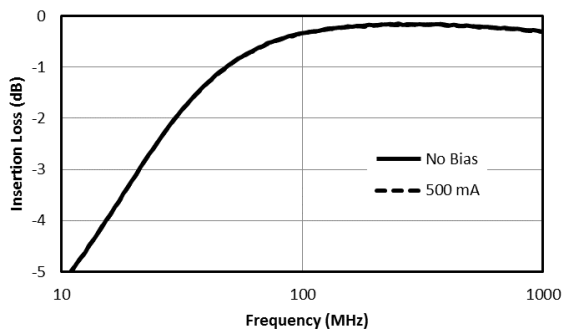


Fig. 4. Insertion Loss vs Bias Current.

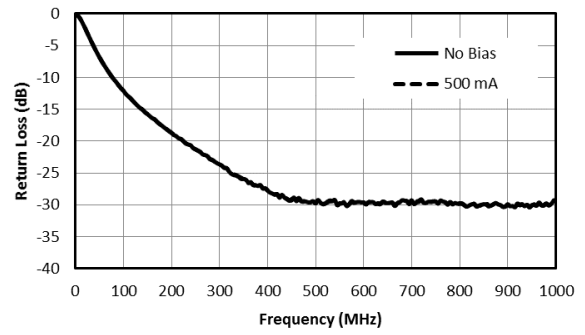


Fig. 5. Common Return Loss vs Bias Current.

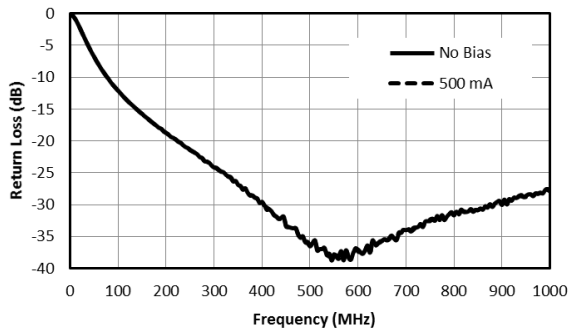


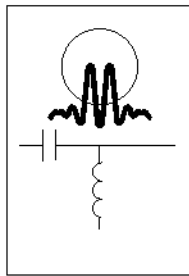
Fig.6. RF Return Loss vs Bias Current.

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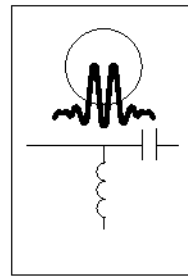
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Port Configuration Option



BT-0026SMG-1



BT-0026SMG-2

Revision History

Revision code	Revision Date	Comment
A	4/2021	DC-RF Isolation Plot added

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