

LEAD-FREE / RoHS-COMPLIANT

MINIATURE SURFACE-MOUNT BIAS-TEE

BT-0035SMG

Features

- Frequency Range: 20 MHz to 35 GHz
- 1 Watt RF Power Handling
- DC Current 500 mA
- Miniature Surface Mount Package
- [Reflow Solderable](#)

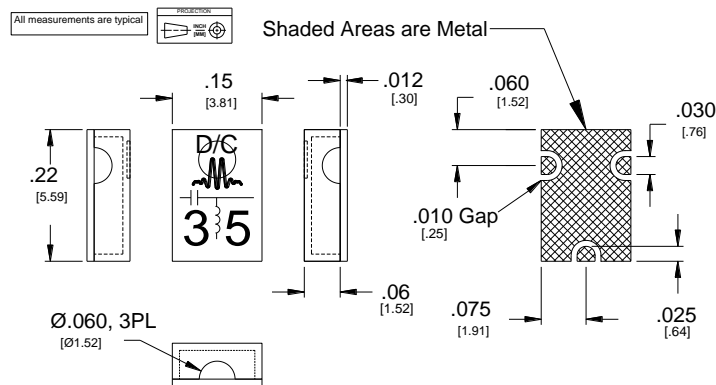


Electrical Specifications - Specifications guaranteed from -55 to +100°C, measured in a 50-Ohm system

Parameter	Frequency Range	Min	Typ	Max
Insertion Loss (dB)	20 MHz to 30 MHz		2.5	
	30 MHz to 28 GHz		1	2.5
	28 to 35 GHz		2.5	
DC Current (mA)	20 MHz to 35 GHz			500
DC Resistance (Ohms)			<1.5	
Capacitance (uF)			1	
Inductance (nH)			320	
DC Port Isolation (dB)			35	
DC Voltage Maximum (V)				30
RF Power Maximum (W)				1

Model ¹	Description
BT-0035SMG-1 BT-0035SMG-2	20 MHz - 35 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.](#)

Typical Performance

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

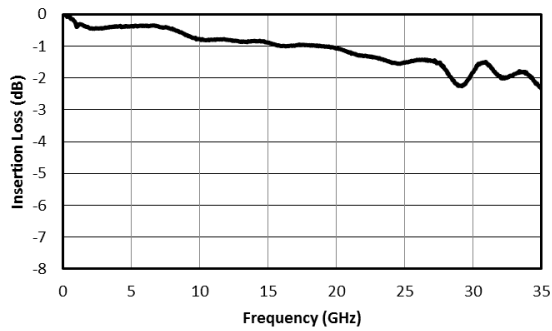


Fig. 1. Insertion loss.

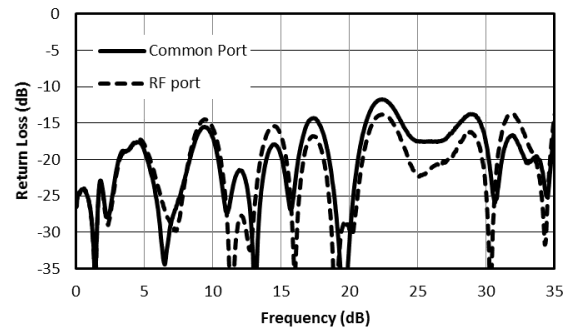


Fig. 2. Return loss

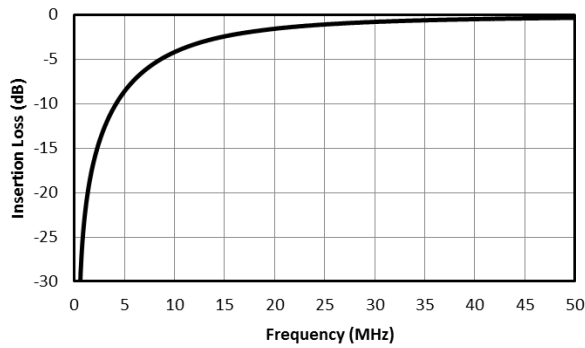


Fig. 3. Low Frequency RF response

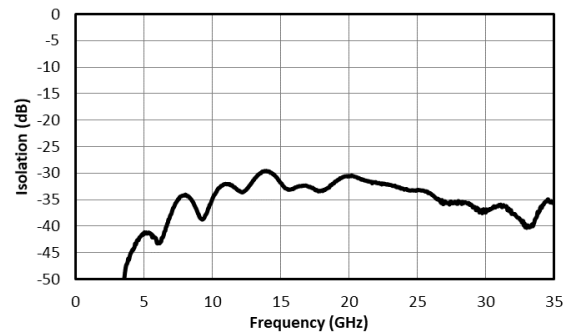


Fig. 4. DC- RF Isolation

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Typical Performance vs Bias Current at Low frequencies

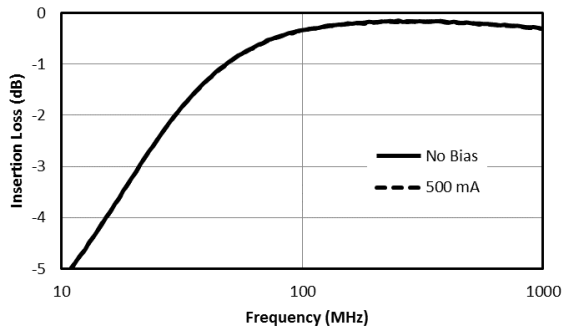


Fig. 4. Insertion Loss vs Bias Current.

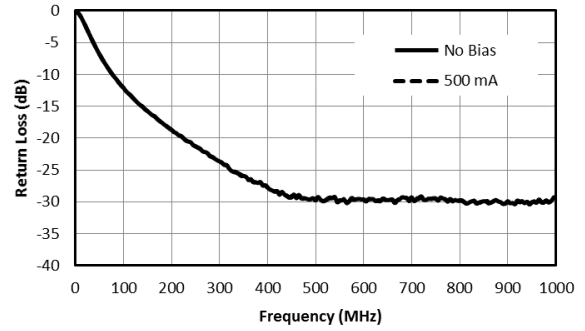


Fig. 5. Common Return Loss vs Bias Current.

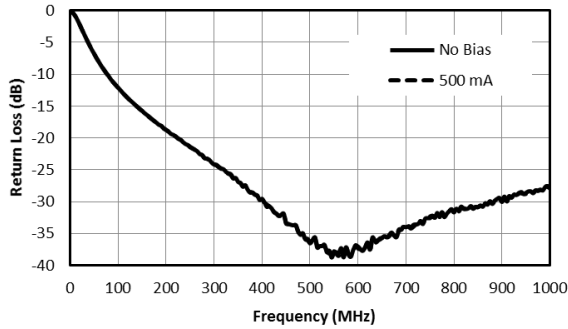


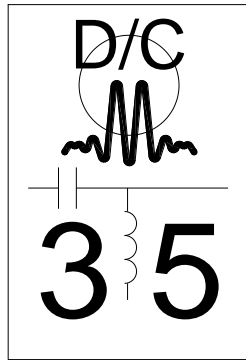
Fig. 6. RF Return Loss vs Bias Current.

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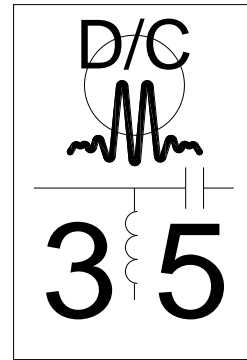
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Port Configuration Option



BT-0035SMG-1



BT-0035SMG-2

Revision History

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

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