

## 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](#)

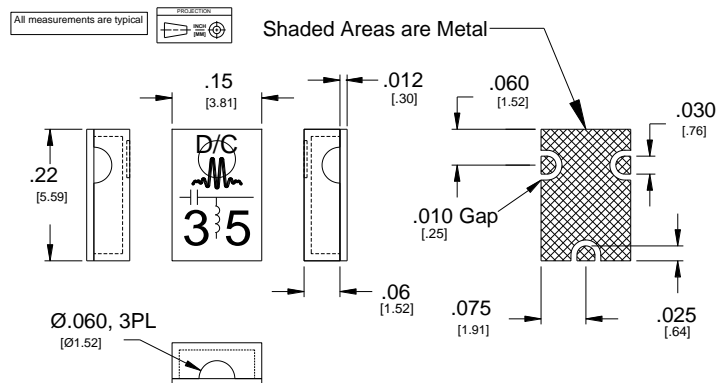


**Electrical Specifications** - Specifications guaranteed from -55 to +100°C, measured in a 50-Ohm system

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 <sup>1</sup>	Description
BT-0035SMG-1 BT-0035SMG-2	20 MHz - 35 GHz Bias Tee, Surface Mount, <b>LEAD-FREE/RoHS COMPLIANT</b>

<sup>1</sup>Default 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.](#)

# MINIATURE SURFACE MOUNT BIAS TEE

# BT-0035SMG

Page 2

## Typical Performance

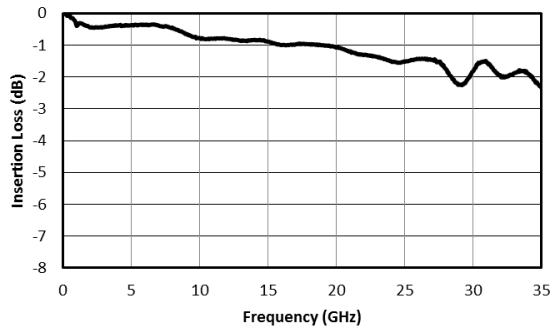


Fig. 1. Insertion loss.

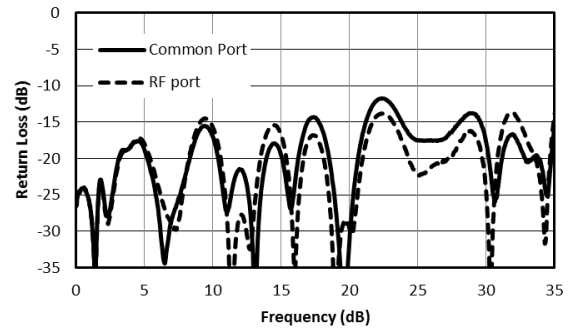


Fig. 2. Return loss

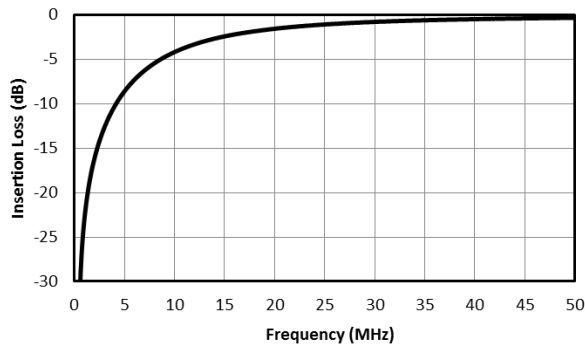


Fig. 3. Low Frequency RF response

**Typical Performance vs Bias Current at Low frequencies**

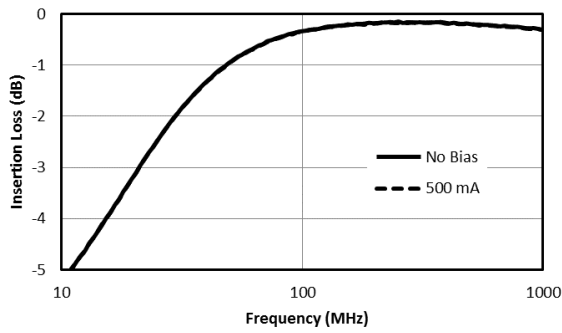


Fig. 4. Insertion Loss vs Bias Current.

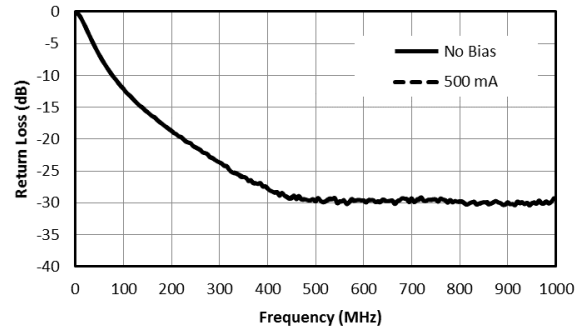


Fig. 5. Common Return Loss vs Bias Current.

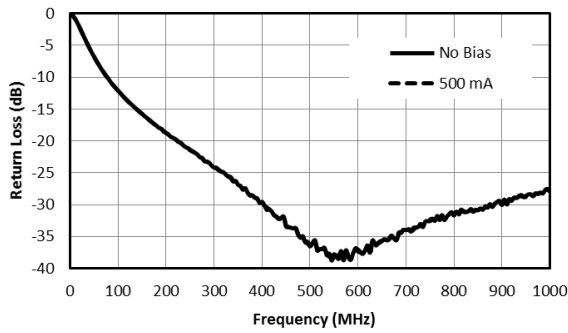


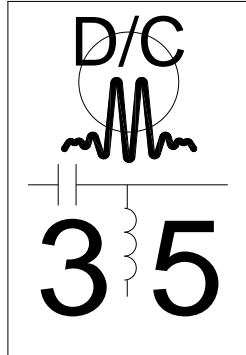
Fig. 6. RF Return Loss vs Bias Current.

**MINIATURE SURFACE MOUNT BIAS TEE**

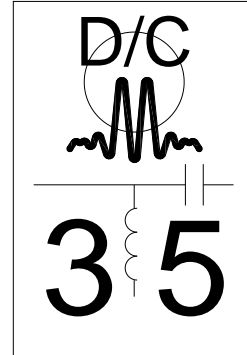
**BT-0035SMG**

Page 4

Port Configuration Option



**BT-0035SMG-1**



**BT-0035SMG-2**

**Revision History**

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

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