

# Surface Mount Bias-Tee

# TCBT-2R5G+ TCBT-2R5G

Wideband 20 to 2500 MHz

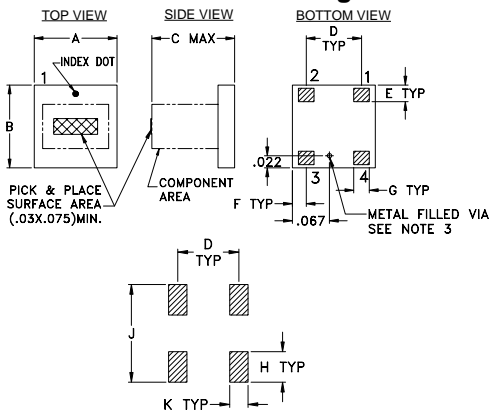
## Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	25dBm max.
Voltage at DC port	25V max.
Input Current	100mA

## Pad Terminations

RF	4
RF&DC	3
DC	1
ISOLATE (see PCB Layout)	2

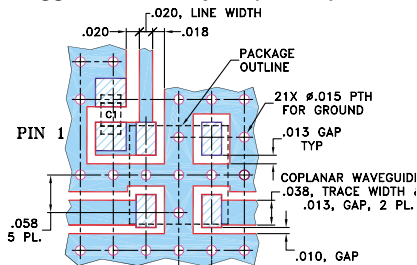
## Outline Drawing



## Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.150	.150	.150	.100	.030	.025	.028
3.81	3.81	3.81	2.54	0.76	0.64	0.71
H	J	K	wt			
.050	.160	.030	grams			
1.27	4.06	0.76	0.10			

## Demo Board MCL P/N: TB-268 Suggested PCB Layout (PL-146)



- CAPACITOR C1: .010 uF, 0603 SIZE
- NOTE: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS 0.020" ± 0.0015". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
  - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

## Features

- wideband, 20-2500 MHz
- low insertion loss, 0.4 dB typ.
- miniature surface mount 0.15"x0.15"
- aqueous washable
- protected by US Patent 7,012,486

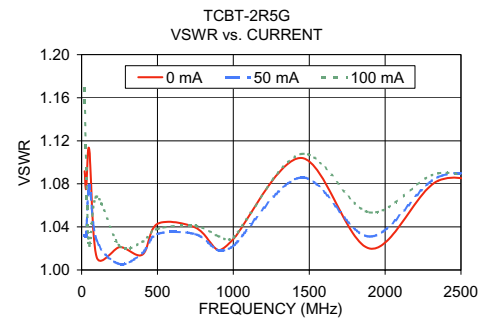
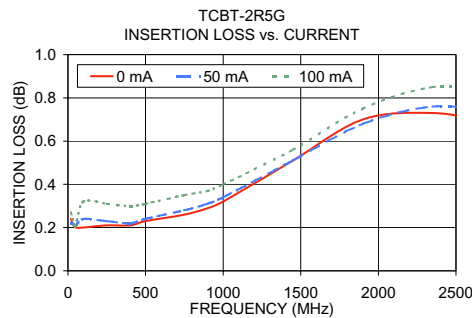
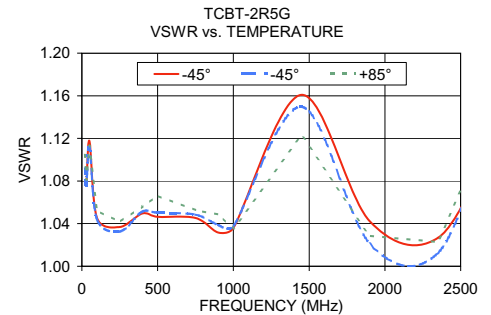
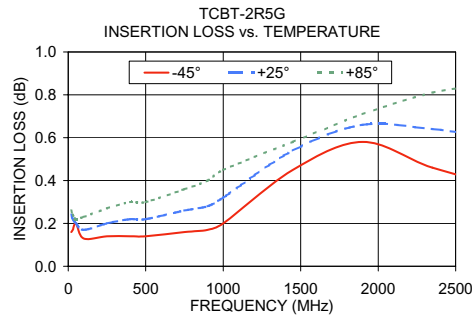
## Applications

- biasing amplifiers
- biasing of laser diodes
- biasing of active antennas

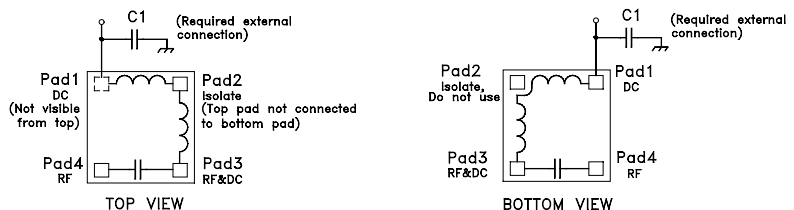
## Electrical Specifications

MODEL NO.	FREQ. RANGE (MHz)	INSERTION LOSS (dB)			ISOLATION (dB)			VSWR (:1)											
		L	M	U	L	M	U	L	M	U									
TCBT-2R5G(+)	20-2500	0.2	0.8	0.35	0.8	0.7	1.2	65	40	44	25	25	20	1.05	1.5	1.05	1.2	1.1	1.25

L= 20-200 MHz M=200-1250 MHz U=1250-2500 MHz  
External C1(0.01µF) is required. See electrical schematic and PCB layout.



## Functional Schematic



CASE STYLE: GU1041  
PRICE: \$6.95 ea. QTY (10-49)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.