

Surface Mount Bias-Tee

TCBT-6G+ TCBT-6G

Wideband 50 to 6000 MHz

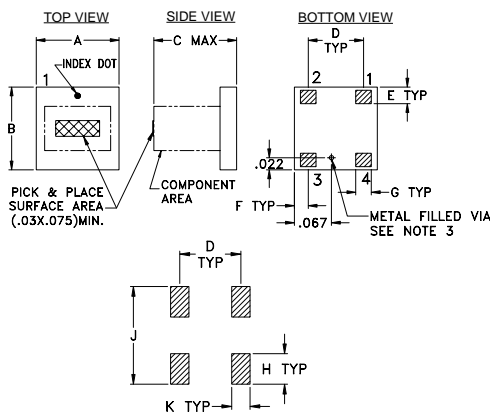
Maximum Ratings

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

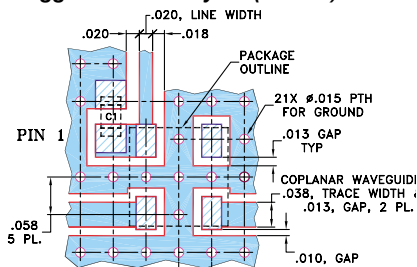
Outline Drawing



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, 50-6000 MHz
- low insertion loss, 0.7 dB typ.
- miniature surface mount 0.15"x0.15"
- protected by US Patent 7,012,486

Applications

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



CASE STYLE: GU1041
PRICE: \$9.95 ea. QTY (10-49)

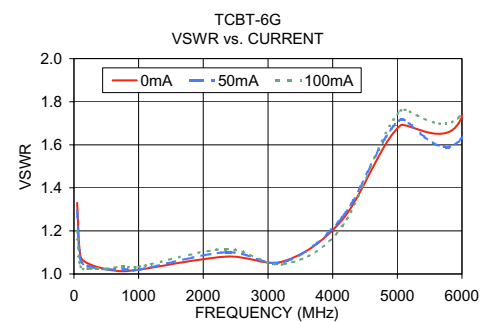
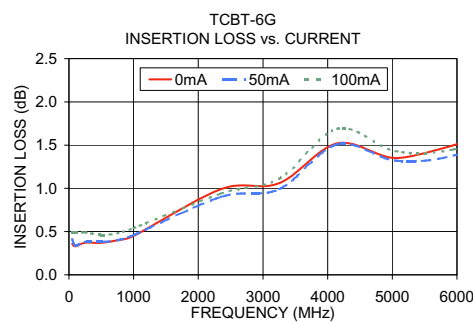
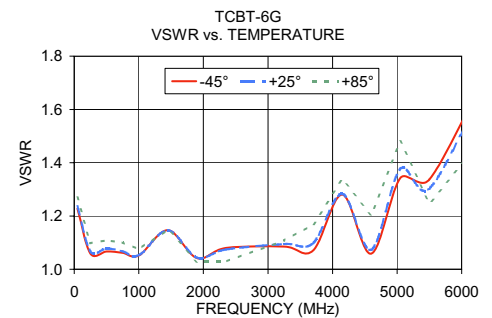
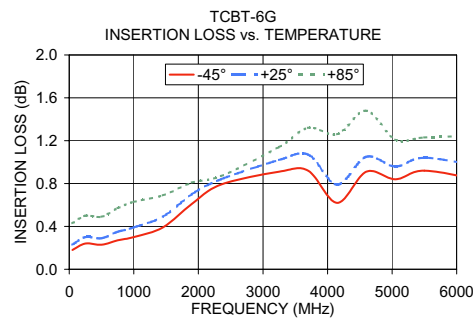
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

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

Electrical Specifications

MODEL NO.	FREQ. RANGE (MHz)	INSERTION LOSS (dB)			ISOLATION (dB) (RF port to DC port) (RF&DC port to DC port)			VSWR (:1)									
		L	M	U	L	M	U	L	M	U							
TCBT-6G(+)	50-6000	0.2	0.8	1.1	2.5	52	38	28	18	19	17	1.05	1.5	1.1	1.3	1.2	2.2

L= 50-500 MHz M=500-3000 MHz U=3000-6000 MHz
External C1(0.01µF) is required. See electrical schematic and PCB layout.



Functional Schematic

