

Surface Mount Bias-Tee

50Ω Wideband 10 MHz to 6 GHz

RCBT-63+

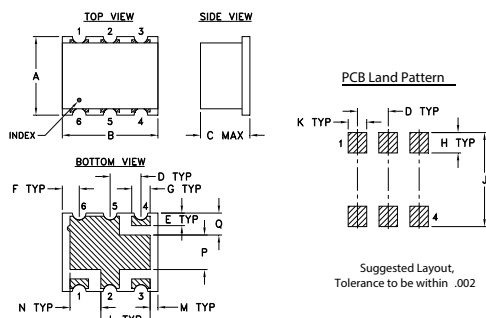
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	30dBm max.
Voltage at DC port	25V max.
Input Current	500mA
Permanent damage may occur if any of these limits are exceeded.	

Pad Terminations

RF	3
RF&DC	4
DC	1
NOT USED	2,5,6

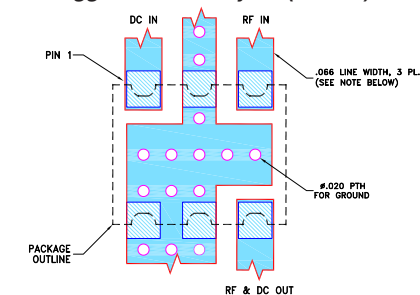
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
.25	.31	.16	.100	.040	.055	.060	.065
6.35	7.87	4.06	2.54	1.02	1.40	1.52	1.65
J	K	L	M	N	P	Q	wt.
.300	.060	.160	.025	.100	.110	.070	grams
7.62	1.52	4.06	0.64	2.54	2.79	1.78	0.16

Demo Board MCL P/N: TB-907+ Suggested PCB Layout (PL-577)



NOTES:
1. LINE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030"±.002".
COPPER: 1/2 OZ. EACH SIDE.
FOR OTHER MATERIALS LINE WIDTH MAY NEED TO BE MODIFIED.
3. 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.

Notes

A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuit's standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp

Features

- wideband, 10 to 6000 MHz
- 500mA DC current
- good isolation, 20dB typ.
- miniature surface mount 0.31"x0.25"
- aqueous washable

Applications

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



CASE STYLE: TT1224-2

+RoHS Compliant

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

Reel Size	Available Tape and Reel at no extra cost
7"	Devices/Reel
13"	20, 50, 100, 200
	500, 1000

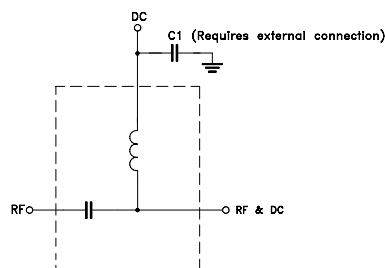
Electrical Specifications at 25°C

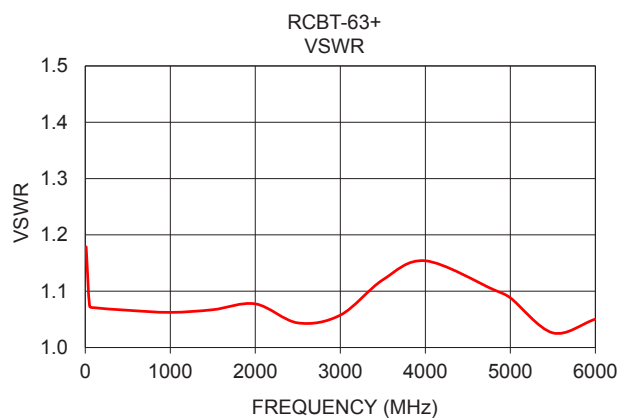
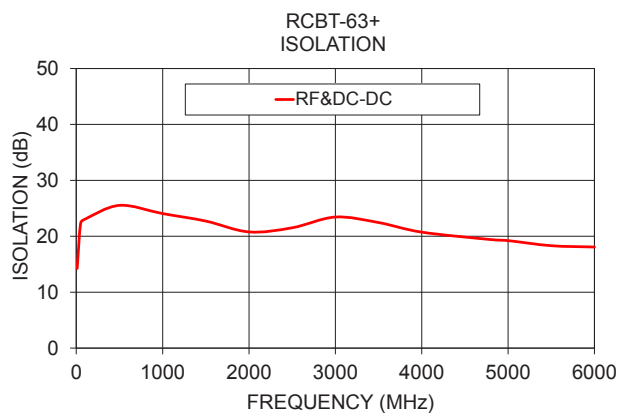
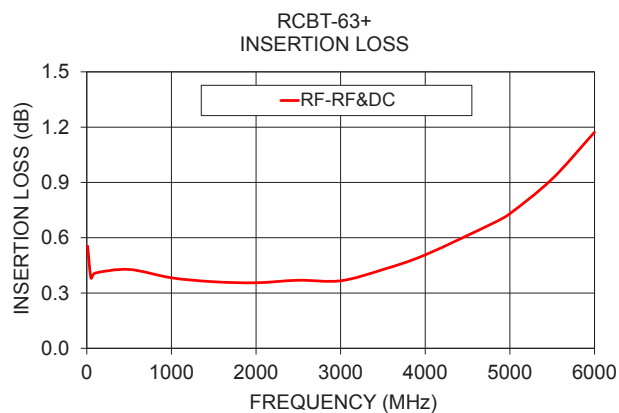
Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		10		6000	MHz
Insertion Loss	10-3500	—	0.6	1.2	dB
	3500-4800	—	1.0	1.5	
	4800-6000	—	1.4	2.0	
Isolation	10-30	13	17	—	dB
	30-4800	16	20	—	
	4800-6000	14	18	—	
VSWR	10-4800	—	1.2	1.33	:1
	4800-6000	—	1.3	1.5	

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB) 0mA	VSWR (:1) 0mA	ISOLATION (dB) 0mA
	RF & DC-RF	RF-DC	RF & DC - DC
10	0.55	1.18	14.25
50	0.38	1.07	22.29
100	0.41	1.07	23.05
500	0.43	1.07	25.53
1000	0.38	1.06	24.06
1500	0.36	1.07	22.72
2000	0.36	1.08	20.78
2500	0.37	1.04	21.52
3000	0.37	1.06	23.44
3500	0.43	1.12	22.46
4000	0.51	1.15	20.74
4800	0.68	1.10	19.41
5000	0.73	1.09	19.22
5500	0.92	1.03	18.32
6000	1.17	1.05	18.08

Functional Schematic





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