

Very Wideband RF Choke

50Ω 50 to 8200 MHz

TCCH-80+



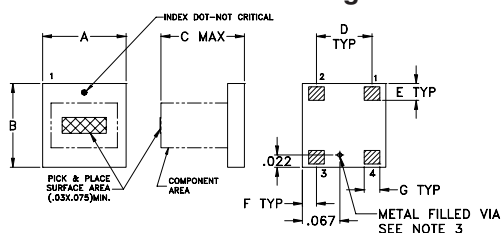
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
DC Current	200 mA
Permanent damage may occur if any of these limits are exceeded.	

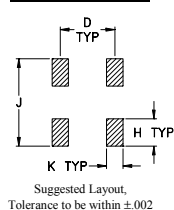
Pad Terminations

RF-IN & DC	1
DC	3
NOT USED	2,4

Outline Drawing



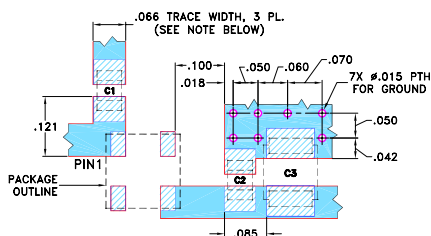
PCB Land Pattern



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-272 Suggested PCB Layout (PL-147)



- CAPACITORS C1,C2: 39000 pF, EIA CODE (MM): 2012
CAPACITORS C3: TANT, 1 uF, EIA CODE (MM): 3528
- NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .002"; 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.
3. DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
4. DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK
5. NOT PRESENT IN TCCH-80+

Features

- very broadband
- miniature size, 0.15"x0.15"
- low parasitic capacitance 0.1 pf typ.
- effective parallel resistance, Rch 500 ohm typ.
- usable up to 10GHz
- aqueous washable
- protected by U.S. Patent 7,012,485

Applications

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

Electrical Specifications @ 25°C

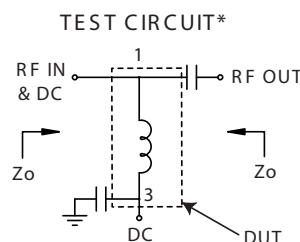
FREQ. RANGE (MHz)	INSERTION LOSS* (dB)	VSWR* (:1)	DC CURRENT (mA)	INDUCTANCE (μH) Typ.
	Typ. Max.	Typ. Max.	Max.	@ 0mA @ 50mA @ 100mA
50-8200	0.5 1.1	1.1 1.7	100	4 1.3 0.9

*tested with circuit shown below, Zo=50 ohms

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB) with current			VSWR (:1) with current		
	0mA	50mA	100mA	0mA	50mA	100mA
30.00	0.58	0.73	0.83	1.20	1.31	1.45
50.00	0.51	0.63	0.70	1.16	1.23	1.31
100.00	0.51	0.61	0.71	1.12	1.16	1.20
200.00	0.42	0.50	0.57	1.10	1.12	1.15
300.00	0.39	0.44	0.47	1.12	1.13	1.14
400.00	0.39	0.41	0.43	1.09	1.09	1.10
500.00	0.35	0.37	0.38	1.08	1.08	1.07
600.00	0.35	0.37	0.36	1.08	1.08	1.08
700.00	0.37	0.37	0.39	1.07	1.07	1.07
800.00	0.38	0.37	0.37	1.09	1.09	1.09
900.00	0.41	0.39	0.40	1.11	1.11	1.11
1000.00	0.40	0.39	0.41	1.12	1.12	1.11
3000.00	0.41	0.41	0.40	1.12	1.12	1.12
5000.00	0.57	0.55	0.54	1.16	1.17	1.16
8000.00	0.47	0.36	0.18	1.49	1.57	1.63
10000.00	0.63	0.44	0.06	1.61	1.54	1.41

Electrical Schematic



Mini-Circuits®
ISO 9001 ISO 14001 AS 9100 CERTIFIED

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits 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-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.

For detailed performance specs & shopping online see web site

REV. B
M108294
ED-11032/4
TCCH-80+
DJ/TD/AM
090119
Page 1 of 2

