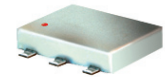


RF Transformer

ADT1.5-122+

50Ω 20 to 1200 MHz



Maximum Ratings

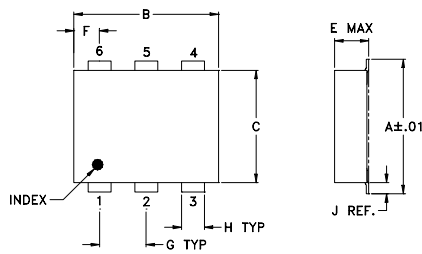
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	0.5W
DC Current	30mA

Permanent damage may occur if any of these limits are exceeded.

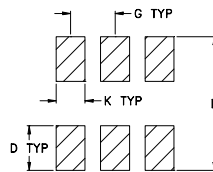
Pin Connections

PRIMARY DOT, 50Ω unbalanced	3
PRIMARY	1 & 2 connect to GND
SECONDARY DOT, 75Ω balanced	4
SECONDARY, 75Ω balanced	6
NOT USED	5

Outline Drawing



PCB Land Pattern



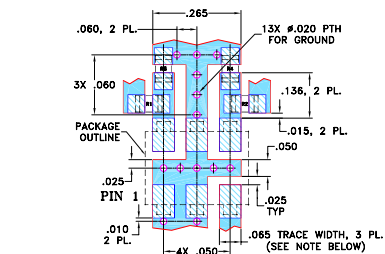
Suggested Layout,
Tolerance to be within ±.002

Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.272	.310	.220	.100	.112	.055	.100
6.91	7.87	5.59	2.54	2.84	1.40	2.54

H	J	K	L	wt
.030	.026	.065	.300	grams
0.76	0.66	1.65	7.62	0.20

Demo Board MCL P/N: TB-375 Suggested PCB Layout (PL-257)



RESISTORS R1-R2: 24.9 Ohm, 0805 SIZE
RESISTORS R3-R4: 75.0 Ohm, 0805 SIZE
NOTE: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS 0.030" ± 0.002"; COPPER: 1/2 OZ. EACH SIDE.
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

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

Features

- excellent return loss, 19 dB typ. in 1 dB bandwidth
- good amplitude unbalance, .25 dB typ. and phase unbalance, 1.0 deg. typ in 1dB bandwidth
- good insertion loss flatness from 50 MHz to 850 MHz
- aqueous washable
- protected under US patent 6,133,525

Applications

- impedance matching
- balanced amplifier
- cable TV

CASE STYLE: CD542
PRICE: \$2.95 ea. QTY (10-49)

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

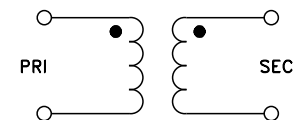
The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Transformer Electrical Specifications

Ω RATIO (Secondary/Primary)	FREQUENCY (MHz)	INSERTION LOSS*			PHASE UNBALANCE (Deg.) Typ.		AMPLITUDE UNBALANCE (dB) Typ.	
		3 dB MHz	2 dB MHz	1 dB MHz	1 dB bandwidth	2 dB bandwidth	1 dB bandwidth	2 dB bandwidth
1.5	20-1200	—	20-1200	50-1000	1.0	1.2	.25	.35

* Insertion Loss is referenced to mid-band loss, 1 dB typ.

Config. C

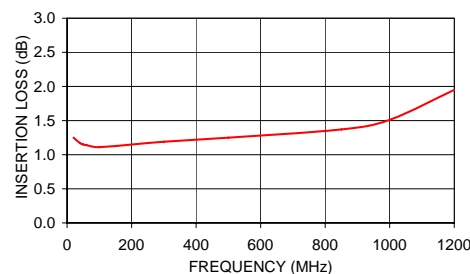


There is internal DC continuity between primary and secondary (not shown in schematic)

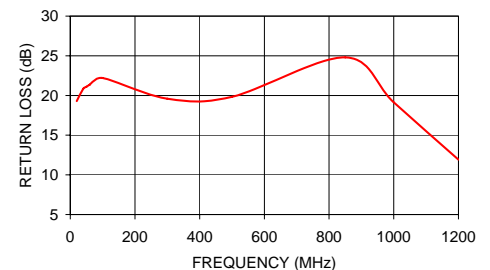
Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE (Deg.)
20.00	1.25	19.29	0.01	0.70
40.00	1.17	20.85	0.11	0.53
50.00	1.15	21.10	0.11	0.21
60.00	1.14	21.36	0.07	0.03
100.00	1.11	22.20	0.03	1.13
300.00	1.19	19.59	0.01	1.23
500.00	1.25	19.83	0.21	2.15
850.00	1.37	24.80	0.56	0.69
1000.00	1.51	19.14	0.76	1.45
1200.00	1.95	11.92	0.95	5.56

ADT1.5-122+
INSERTION LOSS



ADT1.5-122+
INPUT RETURN LOSS



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ISO 9001 ISO 14001 AS 9100 CERTIFIED
IF/RF MICROWAVE COMPONENTS

For detailed performance specs & shopping online see web site

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.

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