

Surface Mount RF Transformer

50Ω 0.15 to 350 MHz

TC1-6X+



CASE STYLE: AT1521

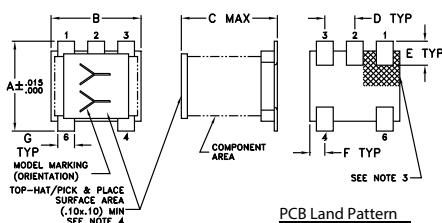
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	0.25W
DC Current	30mA
Permanent damage may occur if any of these limits are exceeded.	

Pin Connections

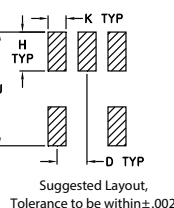
PRIMARY DOT	6
PRIMARY	4
SECONDARY DOT	1
SECONDARY	3
NOT USED	2

Outline Drawing AT1521



Note:
1. Case Material Plastic.
2. Termination Finish: Tin plate over Nickel plate.
3. Lead #1 identifier shall be located in the cross-hatched area shown, on bottom view. Identifier may be either a molded or marked feature.
4. Top-Hat total thickness: 0.13 inches max.

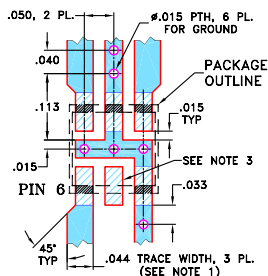
PCB Land Pattern



Outline Dimensions (inch)

A	B	C	D	E	F
.150	.150	.160	.050	.040	.025
3.81	3.81	4.06	1.27	1.02	0.64
G	H	J	K	wt	
.028	.065	.190	.030	grams	
0.71	1.65	4.83	0.76	0.15	

Demo Board MCL P/N: TB-145
Suggested PCB Layout (PL-244)



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS R04350B WITH DIELEC THICKNESS .020" ± .0015"; COPPER: 1/2 OZ. ON EACH SII FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODI
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
3. THIS PAD IS NOT REQUIRED FOR AT224 CASE STYLE.
DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDE MASK OVER BARE COPPER)
DENOTES COPPER LAND PATTERN FREE OF SOLDER

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-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

Features

- good return loss
- usable over 0.05-400 MHz
- excellent amplitude unbalance, 0.1 dB typ. and phase unbalance, 2 deg typ. in 1 dB bandwidth
- plastic base with leads

Applications

- balanced to unbalanced transformation
- push-pull amplifiers

+RoHS Compliant

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

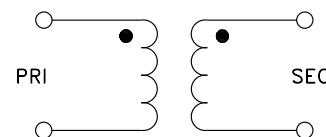
Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500
13"	1000, 2000

Electrical Specifications

Ω RATIO	FREQUENCY (MHz)	INSERTION LOSS*		
		3 dB MHz	2 dB MHz	1 dB MHz
1	0.15-350	0.15-350	0.25-250	0.3-125

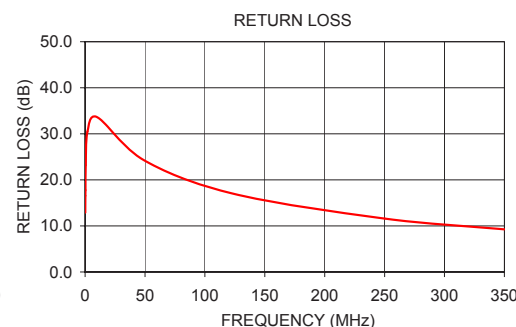
* Insertion Loss is referenced to mid-band loss, 0.2 dB typ.

Config. C



Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)
0.15	0.73	12.89
0.25	0.61	16.56
0.30	0.57	17.77
0.50	0.44	23.21
2.00	0.31	30.49
10.00	0.26	33.62
50.00	0.35	24.13
125.00	0.61	16.90
250.00	1.31	11.59
350.00	2.16	9.26



www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

REV. A
M151107
ED-12659/1
TC1-6X+
IG/QL/AM
151222
Page 1 of 1