Surface Mount \mathbf{I} **RF Transformer** 50Ω 0.5 to 550 MHz

Features

- low insertion loss, 0.4 dB typ.in 1 dB Bandwidth
- excellent return loss, 25 dB typ. in 1 dB Bandwith
 plastic base with leads
- plastic base with leads
- aqueous washable

Applications

- impedance matching, 50 to 75 ohms
- balanced amplifier





Generic photo used for illustration purposes only

CASE STYLE: AT1521

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

	Available Tape and Reel at no extra cost
Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500
13"	1000, 2000

Electrical Specifications at 25°C

Parameter	Frequency (MHz)	Min.	Тур.	Max.	Unit
Impedance Ratio (secondary/primary)			1.5		Ohm
Frequency Range		5		550	MHz
	0.5 - 550		3.0		
Insertion Loss*	1 - 350		2.0		dB
	2 - 200		1.0		

 * Insertion Loss is referenced to mid-band loss, ~ 0.4 dB typ.

Maximum Ratings

Parameter	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.

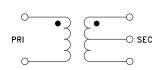
Product Marking

- - - - - - - -

Pin Connections

Function	Pin Number
PRIMARY DOT	6
PRIMARY	4
SECONDARY DOT	1
SECONDARY CT	2
SECONDARY	3
NOT USED	5

Config. A

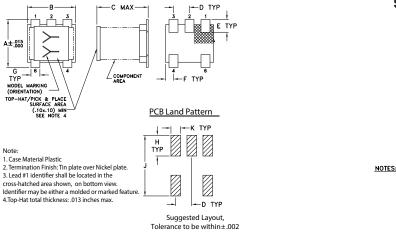


REV. A M151107 ED-12687/1 TC1.5-52TX+ IG/TD/CP/AM 190619 Page 1 of 2



TC1.5-52TX+

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



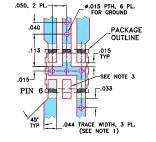
Outline Dimensions (inch)

Outline Drawing

TYF

MODEL (ORIEN

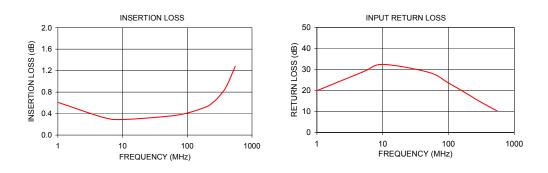
A	B	C	D	E	F
.150	.150	.160	.050	.040	.025
3.81	3.81	4.06	1.27	1.02	0.64
G	H	J	K		wt
.028	.065	.190	.030		grams
0.71	1.65	4.83	0.76		0.15



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .020" ± .0015"; COPPER: 1/2 0Z. ON EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED. 2. BOTTOM SIDE OF THE FOB IS CONTINUOUS GROUND PLANE. 3. THIS PAD IS NOT REQUIRED FOR AT224 CASE STYLE. DENOTES POB COPPER LAYOUT WITH SMOBE (SOLDER MASK OVER BARE COPPER) DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Tvpical	Performance	Data
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FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)	
 0.50	0.82	15.72	
1.00	0.61	19.84	
5.00	0.33	28.81	
10.00	0.29	32.35	
50.00	0.35	28.60	
100.00	0.41	23.52	
200.00	0.53	18.07	
250.00	0.61	16.13	
300.00	0.70	14.71	
400.00	0.90	12.52	
550.00	1.28	10.19	



Additional 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



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