This model is a reference design for Linear Technology LTC6414 model.

Surface Mount top hat®

RF Transformer

TC2-72T-5+

50Ω 10 to 700 MHz

CASE STYLE: AT1521
PRICE: Contact Sales Dept.

Maximum Ratings

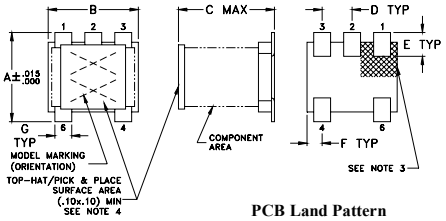
Operating Temperature	-40°C to 105°C
Storage Temperature	-55°C to 100°C
RF Power	250 mW
DC Current	200 mA*

Permanent damage may occur if any of these limits are exceeded.
*Into Secondary CT equally distributed.

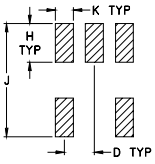
Pin Connections

PRIMARY DOT	6
PRIMARY	4
SECONDARY DOT	1
SECONDARY	3
SECONDARY CT	2

Outline Drawing AT1521



PCB Land Pattern



Suggested Layout,
Tolerance to be within ±.002

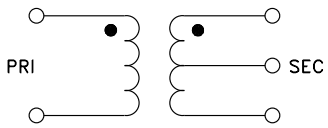
Notes:
1. Case Material: Plastic
2. Termination Finish: Tin plate over Nickel plate.
3. Lead#1 identifier shall be located in the cross-hatched area shown, on bottom view. Identifier may be either a molded or marked feature.
4. Top-Hat total thickness: .013 inches max.

Outline Dimensions (inch / mm)

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

Config. A



Features

- wideband, 10 to 700 MHz
- good return loss
- excellent amplitude unbalance, 2.0 dB typ. and phase unbalance, 10.0 deg typ.
- plastic base with leads
- aqueous washable

Applications

- impedance matching
- balanced to unbalanced transformation
- push-pull amplifiers

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

Electrical Specifications at -40°C to +105°C except where stated otherwise*

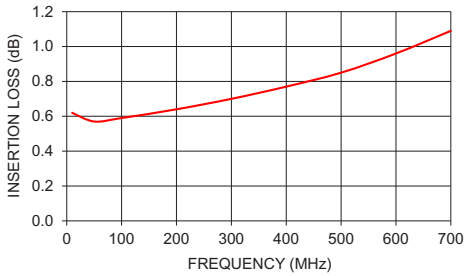
Parameter		Frequency (MHz)	Min.	Typ.	Max.	Unit
Impedance Ratio (secondary/primary)				2		
Frequency Range			10		700	MHz
Insertion Loss	**-40°C to +70°C**	10 - 400	—	—	1.5	dB
		400 - 700	—	—	2.0	
	+70°C to 105°C	100 - 400	—	—	2.0	
		10 - 700	—	—	2.5	
Amplitude Unbalance		10 - 700	—	2.0	—	dB
Phase Unbalance		10 - 700	—	10.0	—	Degree
Return Loss		10-400	10	—	—	dB
		400-700	8	—	—	

* With 186 mA typ. DC current into Secondary CT equally distributed.

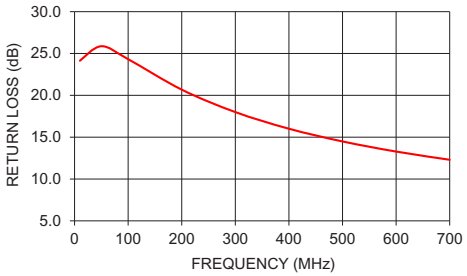
Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE (Deg.)
10.00	0.62	24.14	0.00	0.01
50.00	0.57	25.87	0.01	0.24
100.00	0.59	24.32	0.03	0.52
200.00	0.64	20.68	0.11	1.01
300.00	0.70	18.00	0.26	1.53
400.00	0.77	16.01	0.46	2.04
500.00	0.85	14.49	0.71	2.49
600.00	0.96	13.28	1.02	2.88
700.00	1.09	12.30	1.39	3.17

TC2-72T-5+
INSERTION LOSS



TC2-72T-5+
INPUT RETURN LOSS



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