Surface Mount top hat™

RF Transformer

TC9-1X+

50Ω 2 to 200 MHz

CASE STYLE: AT1521
PRICE: $2.29 ea. QTY (20)
$1.29 ea. QTY (100)

+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

Maximum Ratings

Operating Temperature	-20℃ to 85℃
Storage Temperature	-55℃ to 100℃
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
SECONDARY CT	2

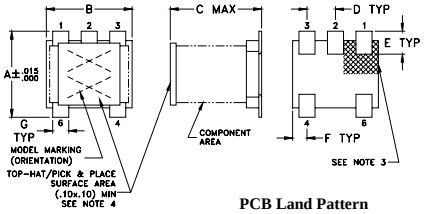
Features

- good return loss
- excellent amplitude unbalance, 0.1dB typ. and phase unbalance, 1 deg typ. in 1dB band width
- plastic base with leads
- aqueous washable

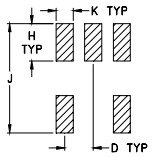
Applications

- impedance matching

Outline Drawing AT1521



PCB Land Pattern



Suggested Layout,
Tolerance to be within ±.002

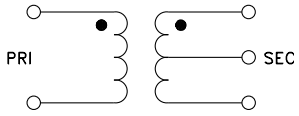
Notes:
1. Case Material: Plastic
2. Termination Finish: Tin plate over Nickel plate.
3. Lead#1 identifier shall be located in the cross-hatched area shown, on bottom view. Identifier may be either a molded or marked feature.
4. Top-Hat total thickness: .013 inches max.

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



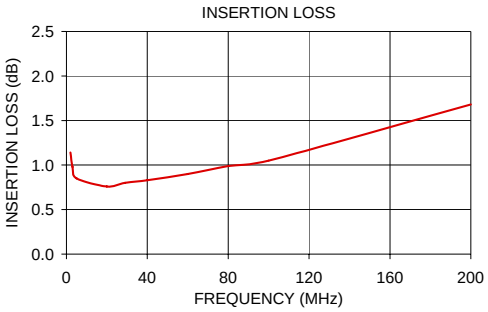
Transformer Electrical Specifications

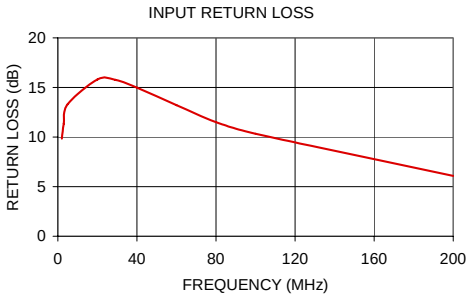
Ω RATIO (Secondary/Primary)	FREQUENCY (MHz)	INSERTION LOSS* 3 dB MHz	2 dB MHz	1 dB MHz
9	2-200	2-200	3-100	5-40

* Insertion Loss is referenced to mid-band loss, 0.7 dB typ.

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)
2.00	1.14	9.85
3.00	0.98	11.35
5.00	0.85	13.33
20.00	0.76	15.80
29.00	0.80	15.77
40.00	0.83	14.99
60.00	0.90	13.22
80.00	0.99	11.50
100.00	1.05	10.34
200.00	1.68	6.08





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