

Surface Mount RF Transformer

TC8-1-10LN+

50Ω 2 to 500 MHz



CASE STYLE: AT224-1
PRICE: \$1.19 ea. QTY (100)

+ 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.

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	0.25W
DC DWV	500V
DC Current (Primary)	0mA
DC Current (Secondary)	150mA*
Insulation Resistance Pri to Sec	1M Ohms

*Applied through center tap, equal current to secondary dot & secondary.

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

Features

- wideband, 2 to 500 MHz
- good return loss
- plastic base with leads
- aqueous washable

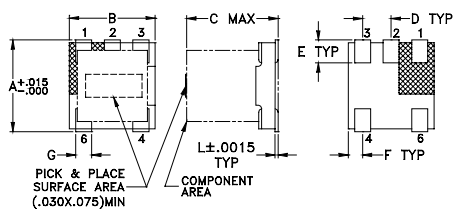
Applications

- push-pull amplifier
- impedance matching

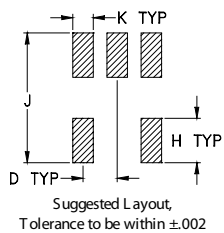
Pin Connections

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

Outline Drawing AT224-1



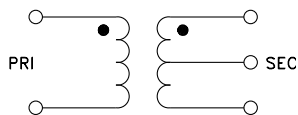
PCB Land Pattern



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	L	wt
.028	.065	.190	.030	.007	grams
0.71	1.65	4.83	0.76	0.18	0.15

Config. A



Transformer Electrical Specifications

Ω RATIO (Secondary/ Primary)	FREQUENCY (MHz)	INSERTION LOSS*			PHASE UNBALANCE (Deg.) Max.	AMPLITUDE UNBALANCE (dB) Max.	RETURN LOSS (dB)	
		3 dB MHz	2 dB MHz	1 dB MHz			Min. ¹	Typ. ²
8	2 - 500	2 - 500	5 - 400	10 - 100	5	0.7	9	9

*Insertion Loss is referenced to mid-band loss, 0.8 dB typ.

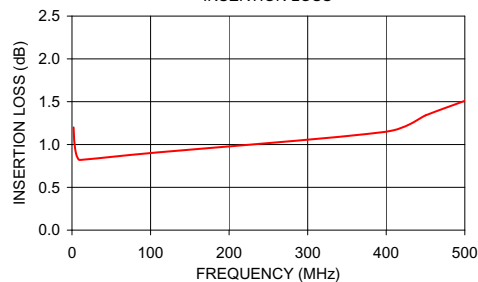
¹ at 5 - 400 MHz

² at 2 - 500 MHz

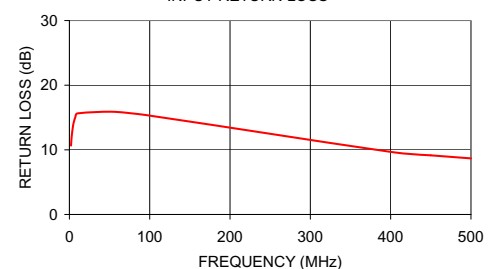
Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)
2.00	1.20	10.65
3.00	1.03	12.20
5.00	0.90	14.01
7.50	0.84	15.09
10.00	0.82	15.64
55.00	0.86	15.88
100.00	0.90	15.29
400.00	1.15	9.68
450.00	1.34	9.15
500.00	1.51	8.67

TC8-1-10LN+
INSERTION LOSS



TC8-1-10LN+
INPUT RETURN LOSS



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ISO 9001 ISO 14001 AS 9100 CERTIFIED

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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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