SURFACE MOUNT

RF Transformer

TC8-1-10LN+

50Ω 2 to 500 MHz

FEATURES

- Wideband, 2 to 500 MHz
- Good Return Loss
- Plastic Base with Leads
- Aqueous Washable

Generic photo used for illustration purposes only

CASE STYLE: AT224-1A

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

APPLICATIONS

- Push-Pull Amplifier
- Impedance Matching

ELECTRICAL SPECIFICATIONS AT +25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Impedance Ratio (Secondary/Primary)			8		Ohms
Frequency Range		2		500	MHz
Insertion Loss[1]	2-500 5-400 10-100		3.0 2.0 1.0		dB
Phase Unbalance (Deg.)				5	Deg
Amplitude Unbalance (dB)				0.7	dB
Return Loss	5-400 2-500	9	 9		dB

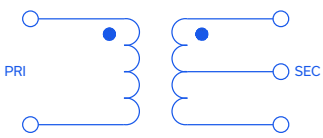
1. Insertion Loss is referenced to mid-band loss, 0.8 dB typ.

ABSOLUTE MAXIMUM RATINGS

Parameter	Ratings
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C
RF Power	0.25 W
DC DWV	500 mA
DC Current (Primary)	0 mA
DC Current (Secondary)	150 mA[2]
Insulation Resistance Pri to Sec	1M Ohms

2. Applied through center tap, equal current to secondary dot & secondary.
Permanent damage may occur if any of these limits are exceeded.

CONFIG. A



REV. D
ECO-025349
TC8-1-10LN+
MCL NY
250428

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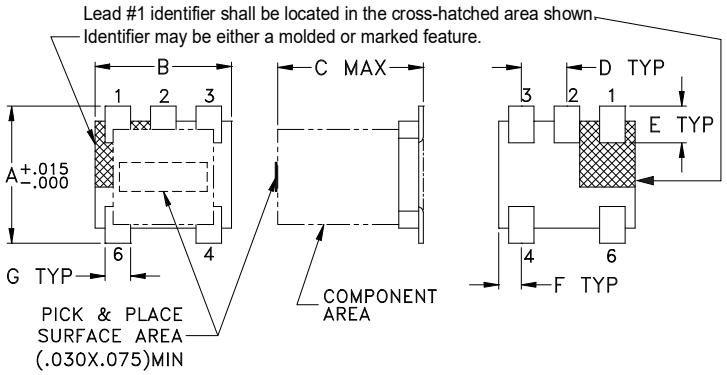
PIN CONNECTIONS

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

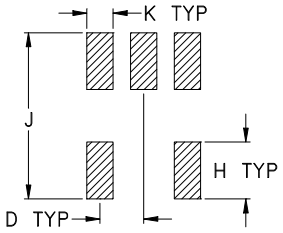
PRODUCT MARKING: N/A

DEMOBOARD MCL P/N: TB-TC8-1-10LN+

OUTLINE DRAWING



PCB Land Pattern



Suggested Layout,
Tolerance to be within±.002

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

TAPE & REEL INFORMATION: F17

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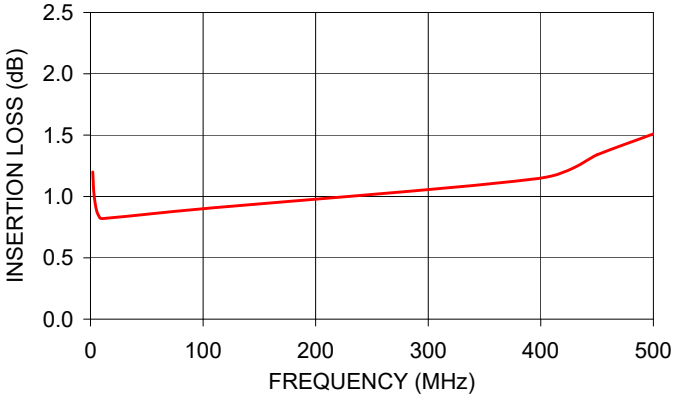
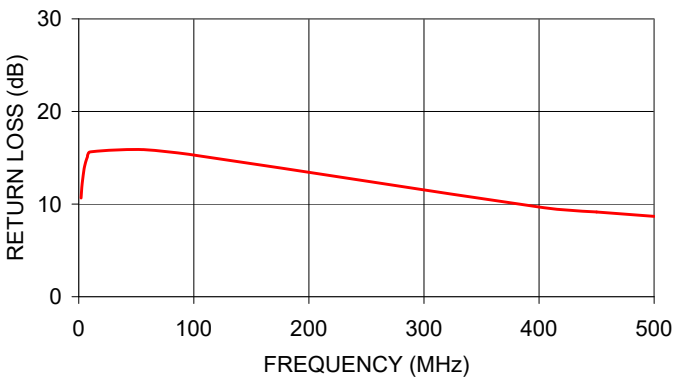
TYPICAL PERFORMANCE DATA

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



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/terms/viewterm.html