



**THE DATASHEET OF
TC16-1T+**





SURFACE MOUNT

RF Transformer

TC16-1T+

Mini-Circuits

50Ω 20 to 300 MHz

FEATURES

- Good return loss, 15 dB typ. in 1 dB typ. in dB bandwidth
- Plastic base with leads
- Aqueous washable



Generic photo used for illustration purposes only

CASE STYLE: AT224-1

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

APPLICATIONS

- CATV

ELECTRICAL SPECIFICATIONS AT 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Impedance Ratio (Secondary/Primary)			16		Ohm
Frequency Range		20		300	MHz
Insertion Loss*	20-300		3.0		dB
	30-200		2.0		
	50-150		1.0		
Phase Unbalance	50-150		4		Deg.
	30-200		5		
Amplitude Unbalance	50-150		0.3		dB
	30-200		0.5		

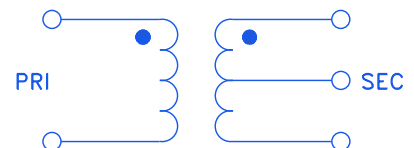
* Insertion Loss is referenced to mid-band loss, 1 dB typ.

MAXIMUM RATINGS

Parameter	Ratings
Operating Temperature	-20°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.

CONFIG. A



REV. D
 ECO-022236
 TC16-1T+
 MCL NY
 240626





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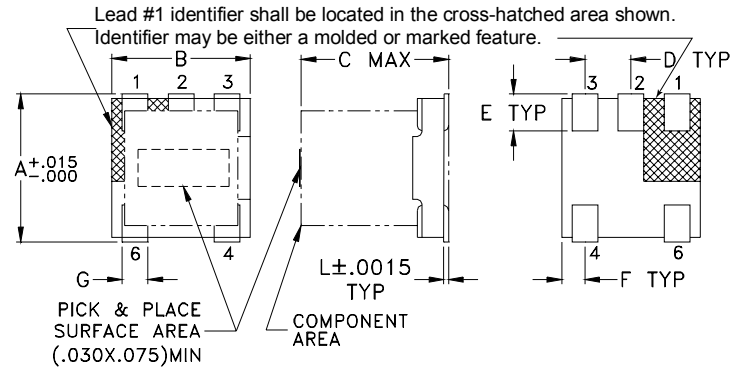
PIN CONNECTIONS

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

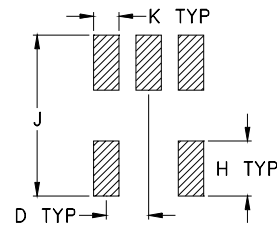
PRODUCT MARKING: N/A

DEMO BOARD MCL P/N: TB-41

OUTLINE DRAWING



PCB Land Pattern



Suggested Layout,
Tolerance to be within ±.002

OUTLINE DIMENSIONS (Inch/mm)

A	B	C	D	E	F	G	H	J	K	L
.150	.150	.160	.050	.040	.025	.028	.065	.190	.030	.007
3.81	3.81	4.06	1.27	1.02	0.64	0.71	1.65	4.83	0.76	0.18

Weight: 0.15 grams

TAPE & REEL INFORMATION: F17



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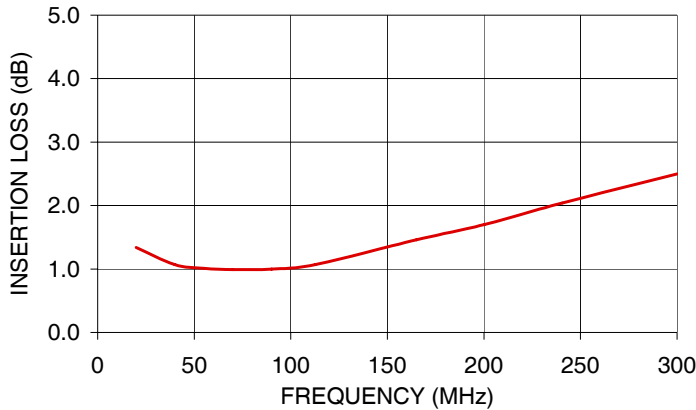


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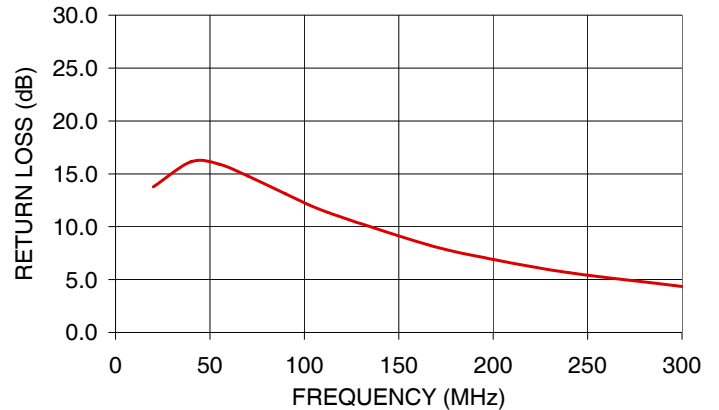
TYPICAL PERFORMANCE DATA

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)
20.00	1.34	13.77
40.00	1.07	16.14
55.00	1.01	15.90
70.00	0.99	14.80
90.00	1.00	13.12
112.50	1.07	11.35
165.00	1.46	8.32
200.00	1.70	6.90
240.60	2.04	5.63
300.00	2.50	4.34

TC16-1T+
INSERTION LOSS



TC16-1T+
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



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