



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





SURFACE MOUNT



# RF Transformer

## TC16-1TX+

50Ω 20 to 300 MHz

### FEATURES

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



Generic photo used for illustration purposes only

CASE STYLE: AT1521

**+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		dB
	30 - 200		2		
	50 - 150		1		
Amplitude Unbalance	50 - 150		0.3		dB
	30 - 200		0.5		
Phase Unbalance	50 - 150		4		Degree
	30 - 200		5		

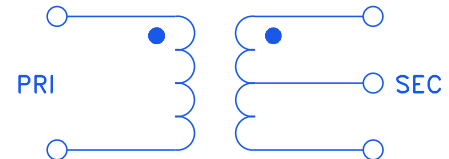
\* Insertion Loss is referenced to mid-band loss, 1 dB typ.

### 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. B  
ECO-021763  
TC16-1TX+  
MCL NY  
240510





top hat<sup>®</sup>  
**SURFACE MOUNT**  
**RF Transformer**

**TC16-1TX+**

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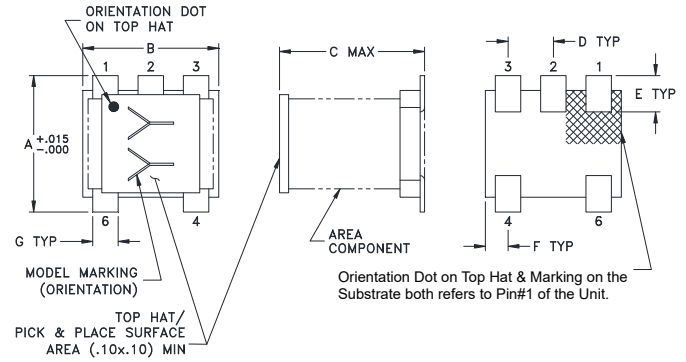
50Ω 20 to 300 MHz

**PIN CONNECTIONS**

Function	Pin Number
PRIMARY DOT	3
PRIMARY	1
SECONDARY DOT	4
SECONDARY	6
NOT USED	2

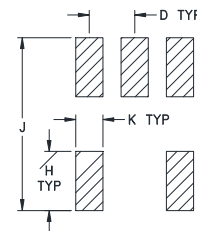
**PRODUCT MARKING:** CY

**OUTLINE DRAWING**



Top-hat total thickness: .013 inches MAX.

**PCB Land Pattern**



Suggested Layout,  
Tolerance to be within  $\pm 0.002$

**OUTLINE DIMENSIONS (Inch/mm)**

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

Weight: 0.15 grams

**TAPE & REEL INFORMATION: F17**



top hat  
SURFACE MOUNT  
RF Transformer

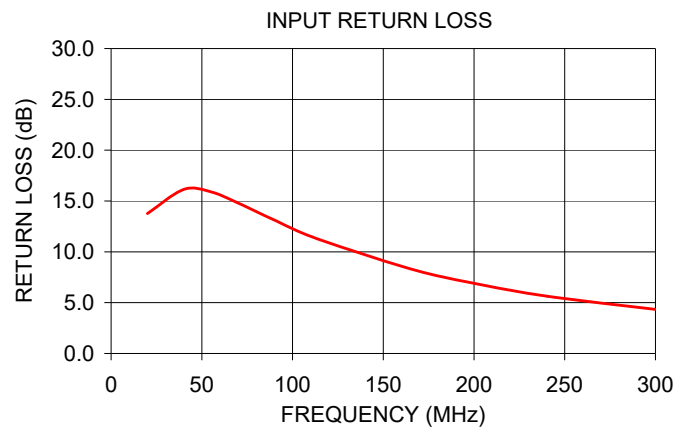
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TYPICAL PERFORMANCE DATA

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



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](http://www.minicircuits.com/terms/viewterm.html)



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