

TC16-161TX+

 $50\Omega$ 

0.6 to 160 MHz

#### **Features**

- plastic base with solder plated leads
- excellent amplitude unbalance, 0.1dB typ. and phase unbalance, 0.5 deg. typ.

Generic photo used for illustration purposes only

CASE STYLE: AT1521

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



#### **Applications**

- impedance matching
- balanced amplifier

### Electrical Specifications at 25°C

Parameter	Condition	Min.	Тур.	Max.	Unit
Impedance Ratio (secondary / primary)			16		Ohm
Frequency Range		0.6		160	MHz
	0.6-160		3		
Insertion Loss*	1.5-120		2		dB
	3-80		1		

<sup>\*</sup> Insertion Loss is referenced to mid-band loss, 0.7 dB typ.

#### **Maximum Ratings**

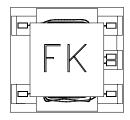
Parameter	Ratings		
Operating Temperature	-40°C to 85°C		
Storage Temperature	-55°C to 100°C		
RF Power	0.25W		
DC Current	30mA		

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

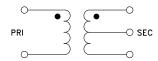
#### **Pin Connections**

Function	Pin Number
PRIMARY DOT	6
PRIMARY	4
SECONDARY DOT	1
SECONDARY	3
SECONDARY CT	2
NOT USED	5

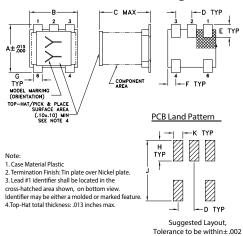
#### **Product Marking**



#### Config. A



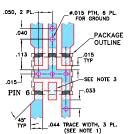
#### **Outline Drawing**



### Outline Dimensions (inch)

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 .028 0.71	H .065 1.65	J .190 4.83	.030 0.76		wt grams 0.15

## Demo Board MCL P/N: TB-145 Suggested PCB Layout (PL-244)

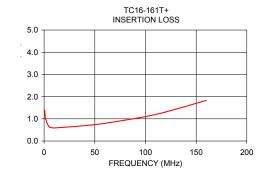


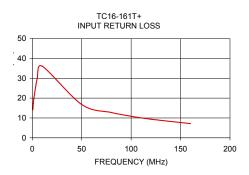
NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS. 0.20" ± .0015"; COPPER: 1/2 0Z. ON EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED. 2. BOTTOM SIDE OF THE POB IS CONTINUOUS GROUND PLANE. 3. THIS PAD IS NOT REQUIRED FOR AT224 CASE STYLE. DENOTES POB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BABE COPPER)

DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

#### **Typical Performance Data**

	lHz) L	OSS R.	IPUT LOSS (dB)
	0.60 1	.40 14	.15
1	1.00 1	.16 17.	.14
1	1.50 0	.99 19	.51
5	5.00 0	.64 29	.93
10	0.00	.59 36	.06
50	0.00	.74 16	.77
80	0.00	.94 12	.74
100	0.00 1	.10 10	.87
120	0.00 1	.31 9.	.38
160	0.00 1	.83 7.	.18





### **Additional 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

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