

# Surface Mount RF Transformer

## TX-2-5-1+

75Ω 20 to 1250 MHz



Generic photo used for illustration purposes only

CASE STYLE: TT240

**+RoHS Compliant**

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

### Maximum Ratings

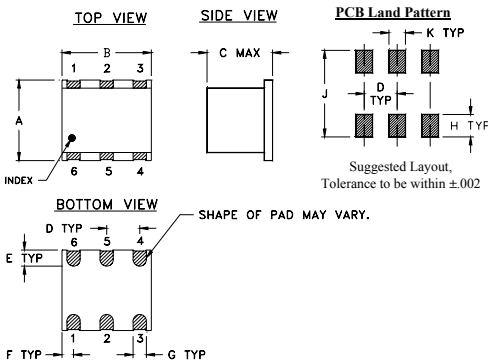
Operating Temperature	-20°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	0.25W
DC Current	30mA

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

### Pin Connections

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

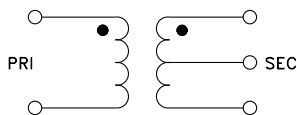
### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F
.250	.31	.20	.100	.050	.055
6.35	7.87	5.08	2.54	1.27	1.40
G	H	J	K	wt	
.040	.070	.270	.050	grams	
1.02	1.78	6.86	1.27	0.50	

### Config. A



### Features

- leadless surface mount
- excellent return loss, 25 dB in 1 bandwidth
- excellent amplitude balance, 0.4 dB typ. and phase unbalance, 3 deg typ.

### Applications

- balanced amplifiers
- VHF/UHF

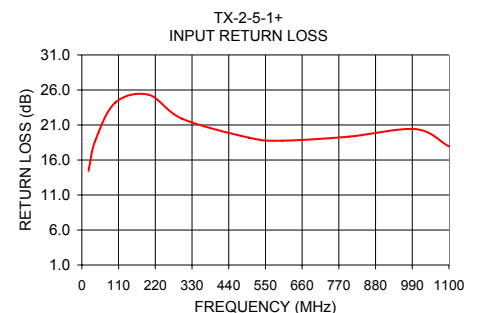
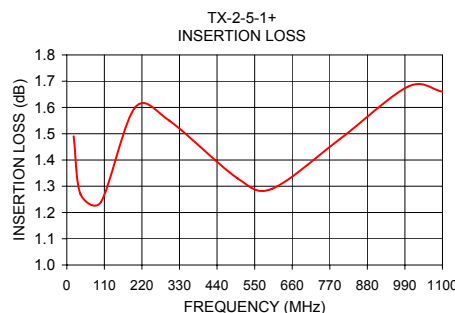
### Electrical Specifications

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Impedance Ratio** (secondary/primary)			2		
Frequency Range		20	—	1250	MHz
Insertion Loss*	100 - 800	—	0.5	1.0	dB
	30 - 1100	—	0.8	1.8	
	20 - 1250	—	1.2	2.5	
Amplitude Unbalance	100 - 800	—	0.4	0.8	dB
	30 - 1100	—	0.7	1.2	
	20 - 1250	—	1.0	1.9	
Phase Unbalance***	100 - 800	—	3	—	Degree
	30 - 1100	—	5	—	
	20 - 1250	—	8	—	
Return Loss	100 - 800	—	20.8	—	dB
	30 - 1100	—	15.5	—	
	20 - 1250	—	12.7	—	

\* Insertion Loss is reference to mid-band loss, 1.3 dB typ.  
 \*\* Impedance ratio= secondary (150 ohms)/(primary (75 ohms)  
 \*\*\* Deviation from 180°

### Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE (Deg.)
20.00	1.49	14.44	0.06	0.46
40.00	1.27	18.74	0.05	0.57
100.00	1.24	24.19	0.09	1.01
200.00	1.60	25.31	0.07	3.30
300.00	1.55	21.89	0.06	3.49
500.00	1.33	19.19	0.03	2.60
600.00	1.29	18.76	0.01	1.79
800.00	1.48	19.33	0.01	0.55
1000.00	1.68	20.40	0.24	3.66
1100.00	1.66	17.94	0.46	5.47



### 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-Circuit's 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-Circuit's website at [www.minicircuits.com/WCLStore/terms.jsp](http://www.minicircuits.com/WCLStore/terms.jsp)

