

# Surface Mount RF Transformer

## ADTL1-12-21+

50Ω 20 to 1200 MHz

### Maximum Ratings

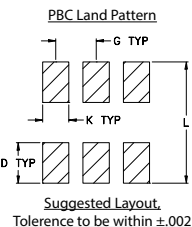
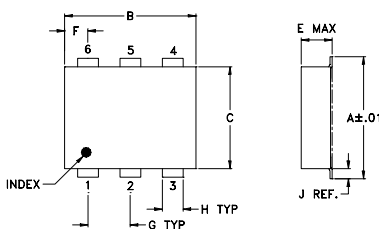
Operating Temperature	-20°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	2W
DC Current	30mA

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

### Pin Connections

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

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.272	.310	.220	.100	.112	.055	.100
6.91	7.87	5.59	2.54	2.84	1.40	2.54
H	J	K	L	wt		
.030	.026	.065	.300	grams		
0.76	0.66	1.65	7.62	0.20		

Demo Board MCL P/N: TB-94

### Config. G



### Features

- wideband, 20 to 1200 MHz
- balanced transmission line
- excellent amplitude unbalance, 0.3 dB typ. and phase unbalance, 3 deg. typ. in 1 dB bandwidth
- RF power, 2W
- aqueous washable
- protected under US patent 6,133,525

### Applications

- impedance matching
- balanced amplifier
- baluns
- cellular
- VHF



Generic photo used for illustration purposes only

CASE STYLE: CD542

**+RoHS Compliant**

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



Available Tape and Reel at no extra cost

Reel Size	Devices/Reel
7"	10, 20, 50, 100, 200
13"	500, 1000

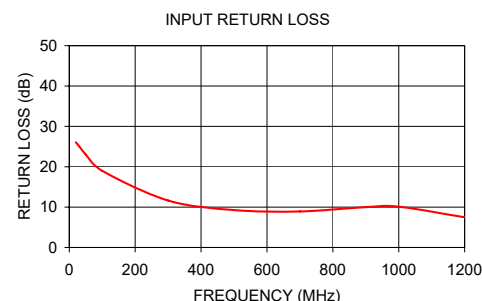
### Transformer Electrical Specifications

Ω RATIO	FREQUENCY (MHz)	INSERTION LOSS*			PHASE UNBALANCE (Deg.) Typ.		AMPLITUDE UNBALANCE (dB) Typ.	
		3 dB MHz	2 dB MHz	1 dB MHz	1 dB bandwidth	2 dB bandwidth	1 dB bandwidth	2 dB bandwidth
1	20-1200	-	20-1200	50-1000	3	4	0.3	0.5

\* Insertion Loss is referenced to mid-band loss, 0.6 dB typ.

### Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE (Deg.)
20.00	0.28	26.05	0.32	3.48
30.00	0.28	25.08	0.26	2.31
50.00	0.28	23.04	0.28	1.42
100.00	0.37	18.99	0.23	0.30
300.00	0.74	11.63	0.17	0.99
500.00	0.98	9.26	0.04	1.35
700.00	0.92	8.93	0.14	0.79
900.00	0.76	10.00	0.48	0.35
1000.00	0.74	10.10	0.65	0.92
1200.00	1.32	7.49	0.99	2.65



### Notes

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- 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](http://www.minicircuits.com/MCLStore/terms.jsp)

