

# Surface Mount RF Transformer

50Ω 0.03 to 125 MHz

## ADT1-6T+ ADT1-6T



CASE STYLE: CD637

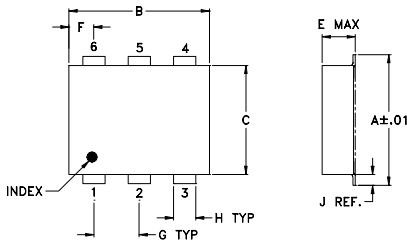
### Maximum Ratings

Operating Temperature	-20°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	0.5W
DC Current	30mA
Permanent damage may occur if any of these limits are exceeded.	

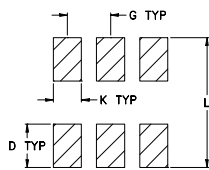
### Pin Connections

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

### Outline Drawing



### PCB Land Pattern



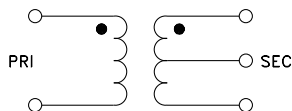
Suggested Layout,  
Tolerance to be within ±.002

### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.272	.310	.220	.100	.206	.055	.100
6.91	7.87	5.59	2.54	5.23	1.40	2.54
H	J	K	L			wt
.030	.026	.065	.300			grams
0.76	0.66	1.65	7.62			0.40

Demo Board MCL P/N: TB-430

### Config. A



### Features

- excellent amplitude unbalance, 0.1 dB typ. and phase unbalance, 1 deg. typ. in 1dB bandwidth
- excellent return loss, 18 dB typ. in 1 dB bandwidth
- aqueous washable
- protected under US patent 6,133,525

### Applications

- impedance matching
- balanced amplifier

### Transformer Electrical Specifications

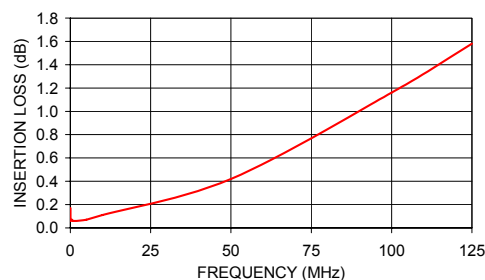
Ω RATIO	FREQUENCY (MHz)	INSERTION LOSS*			PHASE UNBALANCE (Deg.) Typ.		AMPLITUDE UNBALANCE (dB) Typ.	
		3 dB MHz	2 dB MHz	1 dB MHz	1 dB bandwidth	2 dB bandwidth	1 dB bandwidth	2 dB bandwidth
1	0.03-125	0.03-125	0.04-75	0.05-50	1	1	0.1	0.2

\* Insertion Loss is referenced to mid-band loss, 0.1 dB typ.

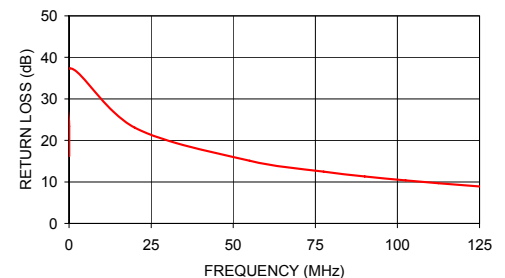
### Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE (Deg.)
0.03	0.17	16.36	0.01	0.06
0.05	0.08	20.69	0.00	0.04
0.10	0.06	26.79	0.00	0.01
0.50	0.07	38.06	0.00	0.02
1.00	0.06	39.09	0.00	0.03
5.00	0.07	32.08	0.00	0.10
10.00	0.11	27.04	0.01	0.19
50.00	0.42	14.63	0.13	0.89
100.00	1.16	9.25	0.52	1.93
125.00	1.58	7.66	0.83	2.58

ADT1-6T  
INSERTION LOSS



ADT1-6T  
INPUT RETURN LOSS



### 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.
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