

Surface Mount

RF Transformer

ADT4-1T

50Ω 9 to 625 MHz



Generic photo used for illustration purposes only

CASE STYLE: CD542

Maximum Ratings

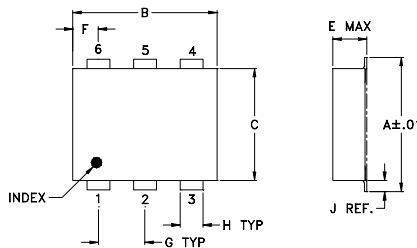
Operating Temperature	-20°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	1W
DC Current	30mA

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

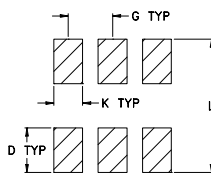
Pin Connections

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

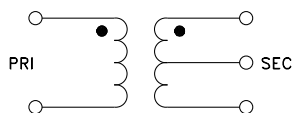
Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.272	.310	.220	.100	.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-430

Config. A



Features

- excellent return loss, 25 dB typ.
- excellent amplitude unbalance, 0.2 dB typ. phase unbalance, 1 deg. typ. in 1 dB bandwidth
- high RF power up to 1 watt
- aqueous washable
- protected under US patent 6,133,525

Applications

- impedance matching
- baluns

Transformer Electrical Specifications

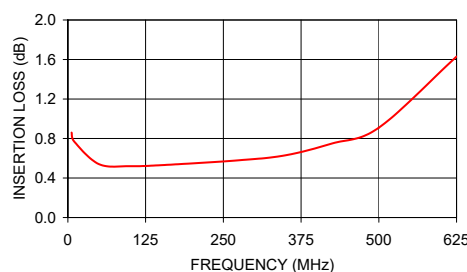
Ω RATIO (Secondary/Primary)	FREQUENCY (MHz)	INSERTION LOSS*			PHASE UNBALANCE (Deg.) Typ.		AMPLITUDE UNBALANCE (dB) Typ.	
		3 dB MHz	2 dB MHz	1 dB MHz	1 dB bandwidth	2 dB bandwidth	1 dB bandwidth	2 dB bandwidth
4	9-625	9-625	10-550	14-500	1	3	0.2	0.3

* Insertion Loss is referenced to mid-band loss, 0.55 dB typ.

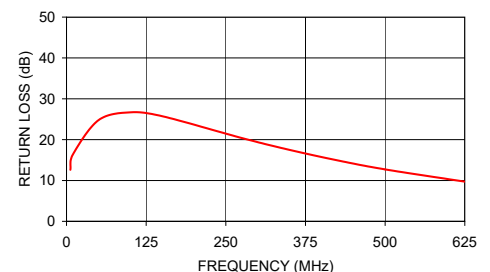
Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE (Deg.)
6.00	0.86	12.61	0.00	0.01
10.00	0.77	16.33	0.00	0.04
50.00	0.54	24.74	0.00	0.09
100.00	0.52	26.69	0.02	0.29
150.00	0.53	25.75	0.04	0.37
275.00	0.58	20.40	0.16	1.00
350.00	0.63	17.49	0.25	1.59
425.00	0.75	14.94	0.33	2.45
500.00	0.91	12.72	0.44	3.89
625.00	1.63	9.71	0.54	7.70

ADT4-1T
INSERTION LOSS



ADT4-1T
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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