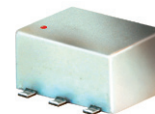


Surface Mount RF Transformer

ADT1-6T+ ADT1-6T

50Ω 0.03 to 125 MHz



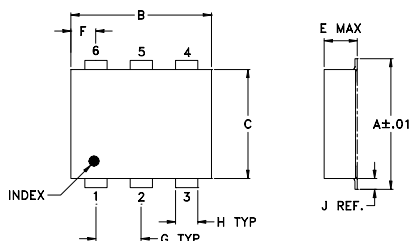
Maximum Ratings

| | |
|---|----------------|
| 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. | |

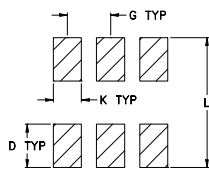
Pin Connections

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

Outline Drawing



PCB Land Pattern



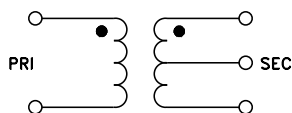
Suggested Layout,
Tolerance to be within ±.002

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 1 dB 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

CASE STYLE: CD637
PRICE: \$3.45 ea. QTY (10-49)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

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

Transformer Electrical Specifications

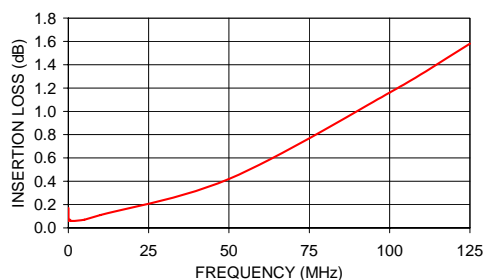
| Ω RATIO | FREQUENCY (MHz) | INSERTION LOSS* | | | PHASE UNBALANCE (Deg.) Typ. | | AMPLITUDE UNBALANCE (dB) Typ. | |
|---------|-----------------|-----------------|----------|----------|-----------------------------|----------------|-------------------------------|----------------|
| | | 3 dB MHz | 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.

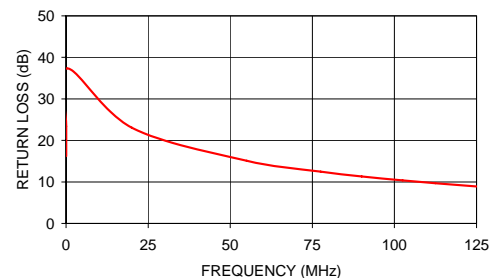
Typical Performance Data

| 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



Mini-Circuits®
ISO 9001 ISO 14001 AS 9100 CERTIFIED

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IF/RF MICROWAVE COMPONENTS

For detailed performance specs & shopping online see web site

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet 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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