



SURFACE MOUNT

RF Transformer

ADT1.5-1+

Mini-Circuits

50Ω 0.5 to 650 MHz

FEATURES

- Excellent return loss, 17 dB typ. in 1 dB bandwidth
- Aqueous washable
- Protected under US patent 6,133,525



Generic photo used for illustration purposes only

CASE STYLE: CD542

+RoHS Compliant

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

APPLICATIONS

- Impedance matching
- Balanced amplifier

ELECTRICAL SPECIFICATIONS AT 25°C

| Parameter | Frequency (MHz) | Min. | Typ. | Max. | Units |
|---------------------------------------|-----------------|------|------|------|-------|
| Impedance Ratio (Secondary / Primary) | | | 1.5 | | |
| Frequency Range | | 0.5 | — | 650 | MHz |
| Insertion Loss* | 0.5-650 | — | 3 | — | dB |
| | 0.8-500 | — | 2 | — | |
| | 1-300 | — | 1 | — | |

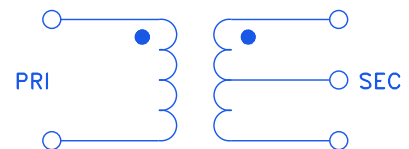
* Insertion Loss is referenced to mid-band loss, 0.3 dB typ.

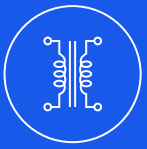
MAXIMUM RATINGS

| Parameter | 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.

CONFIGURATION A





SURFACE MOUNT

RF Transformer

ADT1.5-1+

Mini-Circuits

50Ω 0.5 to 650 MHz

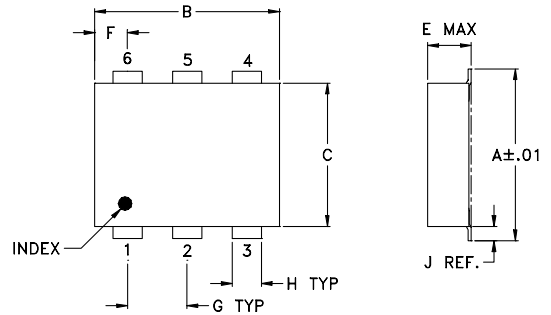
PIN CONNECTIONS

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

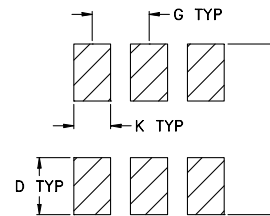
PRODUCT MARKING: N/A

DEMOBOARD MCL P/N: TB-430

OUTLINE DRAWING



PBC Land Pattern



Suggested Layout
Tolerance to be within $\pm .002$

OUTLINE DIMENSIONS (Inches/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 |

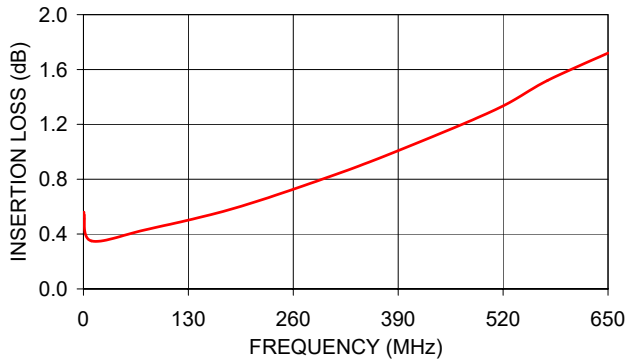
TAPE & REEL INFORMATION: F34



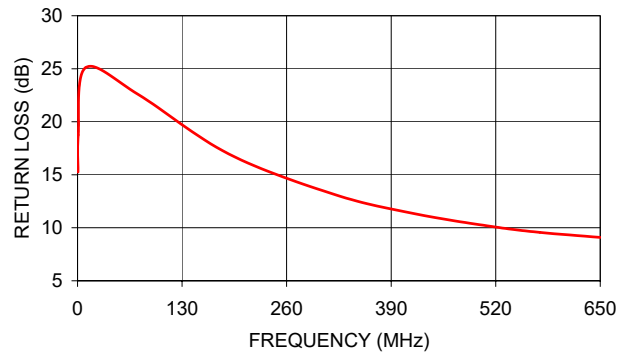
TYPICAL PERFORMANCE DATA

| Frequency (MHz) | Insertion Loss (dB) | Return Loss (dB) |
|-----------------|---------------------|------------------|
| 0.50 | 0.56 | 15.26 |
| 0.90 | 0.54 | 18.76 |
| 10.00 | 0.35 | 25.10 |
| 76.00 | 0.43 | 22.55 |
| 188.00 | 0.59 | 16.96 |
| 320.00 | 0.85 | 13.13 |
| 420.00 | 1.08 | 11.31 |
| 515.00 | 1.32 | 10.12 |
| 575.00 | 1.52 | 9.56 |
| 650.00 | 1.72 | 9.09 |

INSERTION LOSS



INPUT RETURN LOSS



- 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-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/terms/viewterm.html