# Surface Mount **RF** Transformer

#### **50**Ω 350 to 1500 MHz

#### **Maximum Ratings**

| Operating Temperature                | -40°C to 85°C               |
|--------------------------------------|-----------------------------|
| Storage Temperature                  | -55°C to 100°C              |
| RF Power                             | 0.25W                       |
| DC Current                           | 30mA                        |
| Permanent damage may occur if any of | f these limits are exceeded |

#### **Pin Connections**

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

## **Outline Drawing AT224**



#### PCB L and Pattern H-K TYP



T olerance to be within ±.002

### Outline Dimensions (inch)

| A    | B    | C    | D    | E    | F     |
|------|------|------|------|------|-------|
| .150 | .150 | .150 | .050 | .030 | .025  |
| 3.81 | 3.81 | 3.81 | 1.27 | 0.76 | 0.64  |
| G    | H    | J    | K    |      | wt    |
| .028 | .065 | .190 | .030 |      | grams |
| 0.71 | 1.65 | 4.83 | 0.76 |      | 0.10  |

#### Config. G C PRI SEC C $\cap$

#### **Features**

- wideband, 350 to 1500 MHz
- · balanced transmission line
- · leadless surface mount
- good return loss · aqueous washable

#### **Applications**

- PCS
- cellular
- impedance matching
- balanced amplifier
- baluns

| Transformer Electrical Specifications |       |                    |                 |             |             |
|---------------------------------------|-------|--------------------|-----------------|-------------|-------------|
| MODEL                                 | RATIO | FREQUENCY<br>(MHz) | INSERTION LOSS* |             |             |
| NO.                                   |       |                    | 3 dB<br>MHz     | 2 dB<br>MHz | 1 dB<br>MHz |
| TC1-15                                | 1     | 350-1500           | _               | 350-1500    | 800-1500    |
|                                       |       |                    |                 |             |             |

\* Insertion Loss is referenced to mid-band loss, 0.35 dB typ.

# **NON-CATALOG**

#### **Typical Performance Data**

| FREQUENCY<br>(MHz) | INSERTION<br>LOSS<br>(dB) | INPUT<br>R. LOSS<br>(dB) |  |
|--------------------|---------------------------|--------------------------|--|
| 350.00             | 0.46                      | 8.47                     |  |
| 360.00             | 0.56                      | 8.38                     |  |
| 470.00             | 0.71                      | 7.92                     |  |
| 580.00             | 0.86                      | 7.58                     |  |
| 690.00             | 0.59                      | 8.03                     |  |
| 800.00             | 0.60                      | 8.62                     |  |
| 975.00             | 0.48                      | 11.81                    |  |
| 1150.00            | 0.38                      | 19.36                    |  |
| 1325.00            | 0.43                      | 29.22                    |  |
| 1500.00            | 0.50                      | 30.48                    |  |







For detailed performance specs

IF/RF MICROWAVE COMPONENTS

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 tests performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuit's and terms and conditions (collective), "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 penefits and menefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp.

REV. C M125008 TC1-15 IG/TD/CP/AM 091020

## **TC1-15**



CASE STYLE: AT224 PRICE: Contact Sales Dept.