# Surface Mount **RF Transformer**

50Ω

## 2 to 1100 MHz

#### **Maximum Ratings**

Operating Temperature	-20°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 these limits are exceeded.				

#### Pin Connections

(.030X.075)MIN

PRIMARY DOT	6
PRIMARY	3
SECONDARY DOT	1
SECONDARY	3

**Outline Drawing AT224** 

D TYP

R

.150

н

.065

1.65

A .150

3.81 3.81

.028

0.71

G

PCB L and Pattern

Suggested Layout, Tolerance to be within ±.002

Outline Dimensions (inch)

п

к

.050

1.27

.030

0.76

F

.030

0.76

E

.025

0.64

arams

0.10

wt

С

.1

Config. D

SEC

.190

4.83

.150

3.81

E TYP

PAD SHAPE MAY VARY

H-K TYP 

H TYP

Ø

\_\_\_\_\_G TYP

### **Features**

- wideband 2-1100 MHz
- good return loss
- terminations, solder plated with nickel barrier for solderability and excellent leach resistance
- step-down autotransformer
- aqueous washable

#### **Applications**

#### cellular



TC4-11

CASE STYLE: AT224 PRICE: Contact Sales Dept.

Transformer Electrical Specifications							
	Ω FREQUENCY RATIO (Primary/Secondary) (MHz)		INSERTION LOSS*				
		3 dB MHz	2 dB MHz	1 dB MHz			
	50/12.5	2-1100	—	2-1100	5-700		

\* Insertion Loss is referenced to mid-band loss, 0.4 dB typ. Stepdown, 50 ohm primary, 5.2 pF across secondary



#### **Typical Performance Data** FREQUENCY INSERTION INPUT (MHz) LOSS R. LOSS (dB) (dB) 20.35 1.00 0.63 5.00 0.36 31.19 50.00 0.37 40.18 100.00 0.39 36.30 300.00 0.43 26.86 500.00 0.53 21.49 700.00 800.00 0.64 18.96 071 18 37 1000.00 0.89 19.97 1120.00 1.10 19.69 TC4-11 TC4-11 INSERTION LOSS INPUT RETURN LOSS 1.5 50 (gp 1.2 (qB) 40 NSERTION LOSS RETURN LOSS 0.9 30 20 0.6 10 0.3 0 0.0 0 300 600 900 1200 0 300 900 1200 600 FREQUENCY (MHz)



FREQUENCY (MHz)

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 performance 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.

