

# Surface Mount RF Transformer

50Ω 0.5 to 550 MHz

## TC1.5-52TG2+



CASE STYLE: AT224-3  
PRICE: \$1.79 ea. QTY (100)

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

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

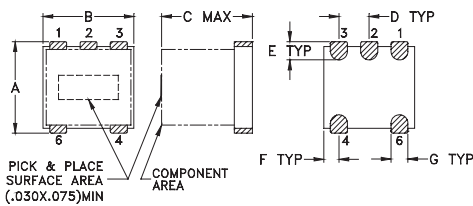
### Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	250mW
DC Current	30mA

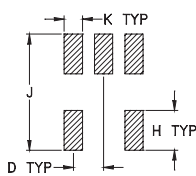
### Pin Connections

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

### Outline Drawing AT224-3



### PCB Land Pattern

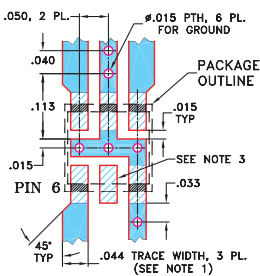


Suggested Layout,  
Tolerance to be within ±.002

### Outline Dimensions (inch/mm)

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	

### Demo Board MCL P/N: TB-145 Suggested PCB Layout (PL-244)



- NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .020" ± .0015"; COPPER: 1/2 OZ. ON EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.  
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.  
3. THIS PAD IS NOT REQUIRED FOR AT224 CASE STYLE.

DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)  
 DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

### Features

- suitable for tin/lead and RoHS solder systems
- low insertion loss, 0.4 dB typ. in 1 dB Bandwidth
- excellent return loss, 25 dB typ. in 1 dB Bandwidth
- aqueous washable

### Applications

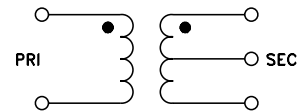
- impedance matching, 50 to 75 ohms
- balanced amplifier

### Transformer Electrical Specifications

Ω RATIO (Secondary/Primary)	FREQUENCY (MHz)	INSERTION LOSS*		
		3 dB MHz	2 dB MHz	1 dB MHz
1.5	0.5-550	0.5-550	1-350	2-200

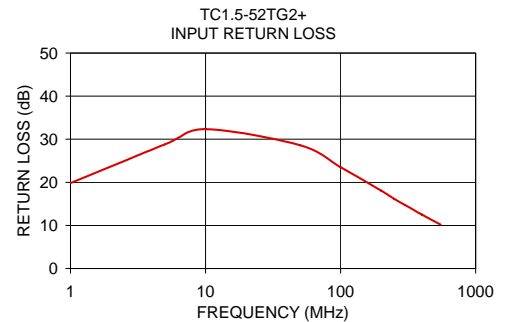
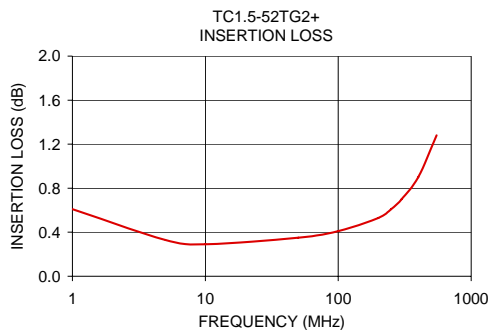
\* Insertion Loss is referenced to mid-band loss, 0.4 dB typ.

### Config. A



### Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)
0.50	0.82	15.72
1.00	0.61	19.84
5.00	0.33	28.81
10.00	0.29	32.35
50.00	0.35	28.60
100.00	0.41	23.52
200.00	0.53	18.07
250.00	0.61	16.13
300.00	0.70	14.71
400.00	0.90	12.52
550.00	1.28	10.19



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RF/IF MICROWAVE COMPONENTS

REV. A  
M111888  
ED-12687/1  
TC1.5-52TG2+  
IG/QL  
081013