

# Surface Mount RF Transformer

## TC4-1WG2+

50Ω      3 to 800 MHz

### Maximum Ratings

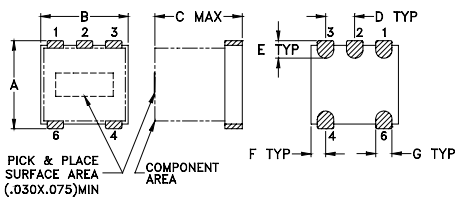
Operating Temperature	-20°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	0.25 W
DC Current	30 mA

Permanent damage may occur if any of these limits are exceeded.

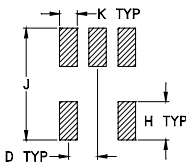
### Pin Connections

PRIMARY DOT	6
PRIMARY	4
SECONDARY DOT	1
SECONDARY	3
SECONDARY CT	2

### Outline Drawing AT224-3



### PCB Land Pattern



Suggested Layout,  
Tolerance to be within ±.002

### Outline Dimensions (inch/mm)

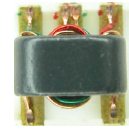
A	B	C	D	E	F
.150	.150	.150	.050	.030	.025
3.81	3.81	3.81	1.27	0.76	0.64
G	H	J	K		wt
.028	.065	.190	.030		grams
0.71	1.65	4.83	0.76		0.10

### Features

- suitable for tin/lead and RoHS solder systems
- wideband, 3-800 MHz
- good return loss
- aqueous washable

### Applications

- impedance matching
- push-pull amplifiers



CASE STYLE: AT224-3

### +RoHS Compliant

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



Available Tape and Reel  
at no extra cost

Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500
13"	1000, 2000

### Transformer Electrical Specifications

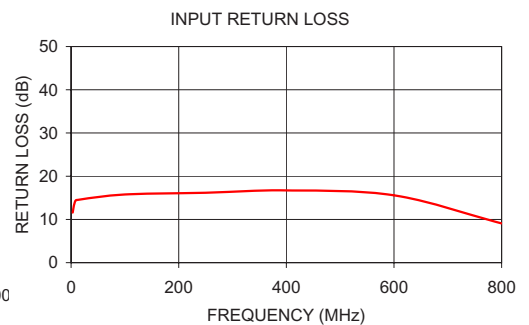
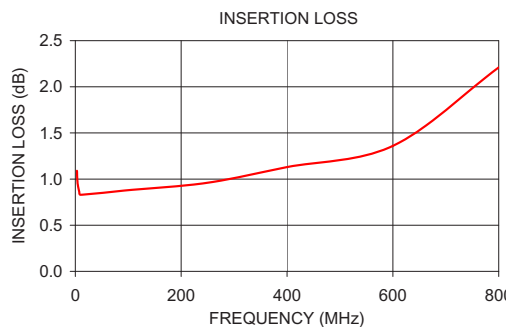
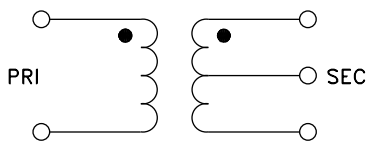
Ω RATIO (Secondary/Primary)	FREQUENCY (MHz)	INSERTION LOSS*		
		3 dB MHz	2 dB MHz	1 dB MHz
4	3-800	3-800	5-400	10-100

\* Insertion Loss is referenced to mid-band loss, 0.8 dB typ.

### Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)
3.00	1.09	11.58
4.00	0.98	12.35
5.00	0.93	13.11
7.50	0.86	14.21
10.00	0.83	14.49
100.00	0.88	15.77
250.00	0.96	16.17
400.00	1.13	16.72
600.00	1.36	15.59
800.00	2.21	9.07

### Config. A



### Notes

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- 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/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp)



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REV. A  
M151107  
TC4-1WG2+  
IG/TD/CP  
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