

# Surface Mount RF Transformer

## TC9-1-75G2+

75Ω

0.3 to 475 MHz



CASE STYLE: AT224-3  
PRICE: \$2.79 ea. QTY (20)  
\$1.79 ea. QTY (100)

**+RoHS Compliant**  
This is a Surface Mount Part. See our website for RoHS compliance methods and qualifications.

**Available Tape and Reel at no extra cost**

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

### 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

PRIMARY DOT	6
PRIMARY	3
SECONDARY DOT	1
SECONDARY	3

### Features

- suitable for tin/lead and RoHS solder systems
- wideband, 0.3 to 475 MHz
- good return loss, 23 dB typ. in 1 dB bandwidth
- step-down 9:1 autotransformer
- aqueous washable

### Applications

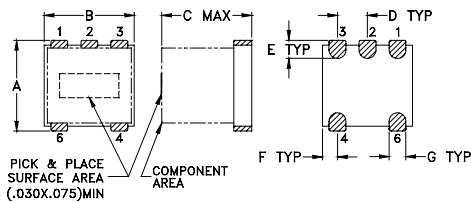
- matching laser diode

### Transformer Electrical Specifications

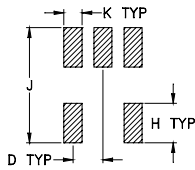
Ω RATIO (Primary/Secondary)	FREQUENCY (MHz)	INSERTION LOSS*		
		3 dB MHz	2 dB MHz	1 dB MHz
75/8	0.3-475	0.3-475	0.5-450	0.9-370

\* Insertion Loss is referenced to mid-band loss, 0.4 dB typ.  
Stepdown, 75 ohm primary, 51 pF across secondary

### Outline Drawing AT224-3



### PCB Land Pattern



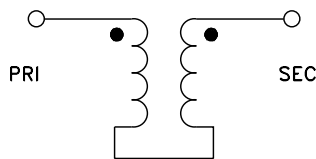
Suggested Layout,  
Tolerance to be within ±.002

### 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-276

### Config. D



### 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.
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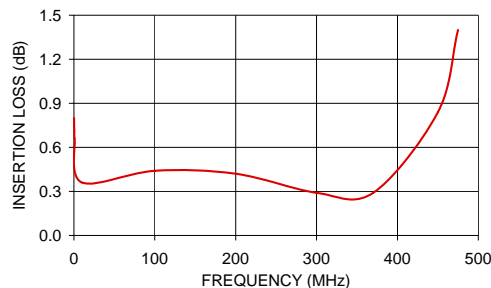


[www.minicircuits.com](http://www.minicircuits.com) P.O. Box 35166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

### Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)
0.30	0.80	14.70
0.50	0.71	16.80
0.90	0.66	18.13
10.00	0.36	22.63
100.00	0.44	22.86
200.00	0.42	22.40
300.00	0.29	23.48
370.00	0.29	18.53
450.00	0.84	9.48
475.00	1.40	7.44

TC9-1-75G2+  
INSERTION LOSS



TC9-1-75G2+  
INPUT RETURN LOSS

