

# Surface Mount RF Transformer

75Ω 0.3 to 475 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

PRIMARY DOT	6
PRIMARY	3
SECONDARY DOT	1
SECONDARY	3

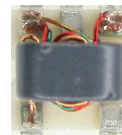
## Features

- wideband 0.3-475 MHz
- good return loss, 23 dB typ in 1 dB bandwidth
- step-down 9:1 autotransformer
- plastic base with leads
- aqueous washable

## Applications

- matching laser diode

TC9-1-75+



CASE STYLE: AT224-1

### \*Addition of Top hat™ feature

#### Benefits

- Allows faster pick-and-place
- Enables visual identification marking

### +RoHS Compliant

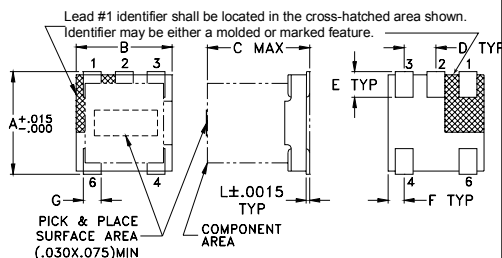
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

## Transformer Electrical Specifications

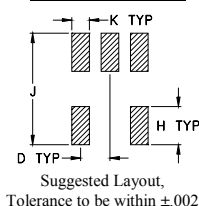
Ω RATIO (Primary/Secondary)	FREQUENCY (MHz)	INSERTION LOSS*		
		3 dB MHz	2 dB MHz	1 dB MHz
75/8	0.3-475	0.3-475	0.5-450	0.9-370

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

## Outline Drawing AT224-1



### PCB Land Pattern

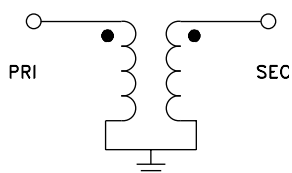


## Outline Dimensions (inch/mm)

A	B	C	D	E	F
.150	.150	.160	.050	.040	.025
3.81	3.81	4.06	1.27	1.02	0.64
G	H	J	K	L	wt
.028	.065	.190	.030	.007	grams
0.71	1.65	4.83	0.76	0.18	0.15

Demo Board MCL P/N: TB-276

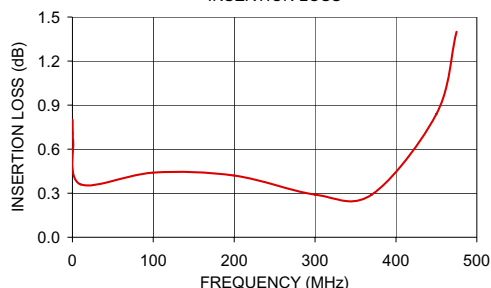
### Config. D



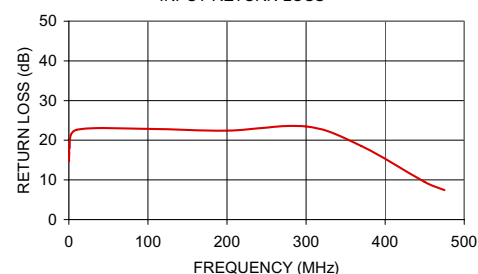
## Typical Performance Data

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

TC9-1-75+  
INSERTION LOSS



TC9-1-75+  
INPUT RETURN LOSS



## 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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