Surface Mount

RF Transformer

TC9-1-75G2+

75Ω 0.3 to 475 MHz



CASE STYLE: AT224-3

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

+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

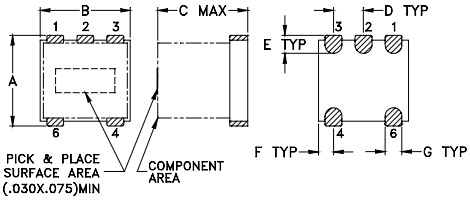
Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500
13"	1000, 2000

Transformer Electrical Specifications

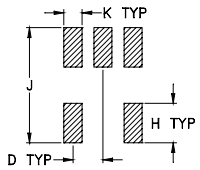
Ω RATIO (Primary/Secondary)	FREQUENCY (MHz)	INSERTION LOSS*		
		3 dB MHz	2 dB MHz	1 dB MHz
75/8	0.3-475	0.3-475	0.5-450	0.9-370

* 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

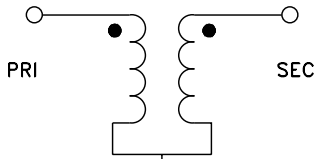
Outline Dimensions (inch / mm)

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

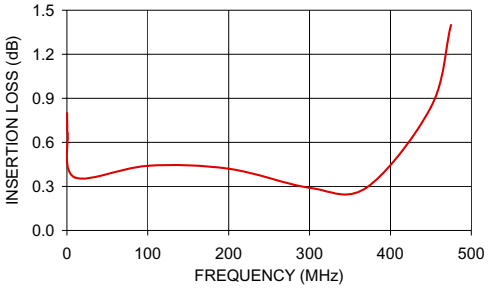
Config. D



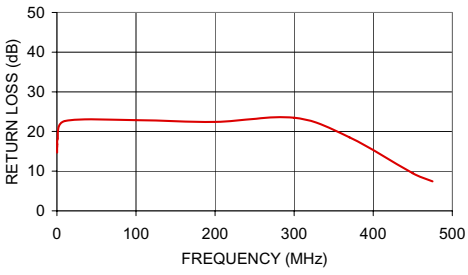
Typical Performance Data

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



Notes

A. 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.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. 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