# Surface Mount **RF Transformer**

### 50Q

## 0.5 to 2200 MHz

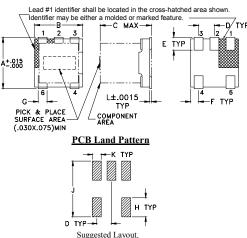
#### **Maximum Ratings**

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	4
SECONDARY DOT	1
SECONDARY	4
NOT USED	2,3
NOT USED	2,3

### Outline Drawing AT224-1

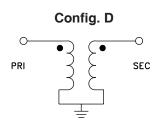


Tolerance to be within ±.002

#### Outline Dimensions (inch)

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

#### Demo Board MCL P/N: TB-41



#### **Features**

- wideband, 0.5-2200 MHz,
- excellent return loss
- terminations, solder plated with nickel barrier
- for solderability & excellent each resistance
- autotransformer
- plastic base with leads
- · aqueous washable

#### **Applications**

impedance matching





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

	Elect	rical Specificati	ons	
Ω	FREQUENCY		INSERTION LOSS*	
RATIO (Secondary/Primary)	(MHz)	3 dB MHz	2 dB MHz	1 dB MHz
1.5	0.5-2200	0.5-2200	1-2000	2-1100
Insertion Loss is referenced	to mid-band loss, .3 dB typ			

Available Tape and Reel at no extra cost Reel Size Devices/Reel 20, 50, 100, 200, 500 13' 1000.2000

#### **Typical Performance Data**

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)	
0.10	0.79	9.30	
10.00	0.34	32.27	
55.00	0.26	34.33	
100.00	0.28	31.27	
500.00	0.38	21.15	
800.00	0.47	17.71	
1200.00	0.59	15.28	
1500.00	0.71	16.70	
1950.00	1.04	25.47	
2250.00	1.43	11.82	

#### INSERTION LOSS 2.0 50.0 45.0 INSERTION LOSS (dB) 1.6 (dB) 40.0 35.0 **RETURN LOSS** 1.2 30.0 25.0 0.8 20.0 15.0 0.4 10.0 0.0 5.0 0 0 10 100 1000 1 FREQUENCY (MHz)



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-Circuit's website at www.minicircuits.com/WCLStore/terms.jsp

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