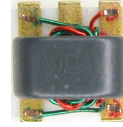


Surface Mount RF Transformer

REFERENCE DESIGN FOR TRIQUINT TAT7464 PHEMT DUAL RF AMPLIFIER

TC1-1-13M-17+

75Ω 70 to 2700 MHz



CASE STYLE: AT224-3
PRICE: Contact Sales Dept.

Maximum Ratings

Operating Temperature	-40°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	3
NOT USED	2

Features

- suitable for tin/lead and RoHS solder systems
- wideband, 70 to 2700 MHz
- balanced transmission line
- good return loss
- excellent amplitude unbalance and phase unbalance
- aqueous washable

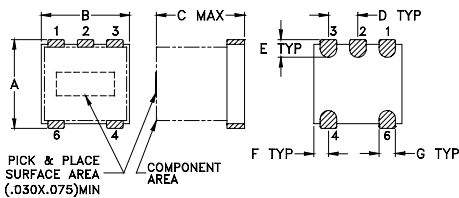
Applications

- balanced to unbalanced transformation
- push-pull amplifiers
- PCS/DCS
- MMDS

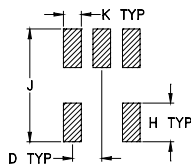
+RoHS Compliant

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

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

Electrical Specifications at 25°C

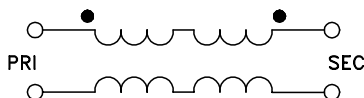
Ω RATIO	FREQUENCY (MHz)	AVG. INSERTION LOSS (dB) Max.	PHASE UNBALANCE (Deg.) Max.	AMPLITUDE* UNBALANCE (dB) Max.	RETURN LOSS (dB) Min.
1	70 - 2700	2	11	2	14

*Frequency where amplitude unbalance=0dB~2100 MHz

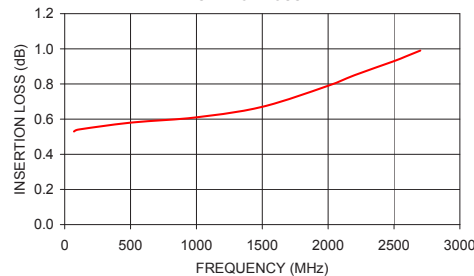
Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE (Deg.)
70.0	0.53	27.83	1.66	0.07
100.0	0.54	28.03	1.68	0.30
500.0	0.58	29.73	1.57	1.86
1000.0	0.61	35.95	1.14	3.98
1500.0	0.67	31.24	0.58	5.81
2000.0	0.79	23.95	0.09	6.79
2200.0	0.85	23.00	0.24	6.72
2500.0	0.93	22.46	0.59	6.30
2600.0	0.96	22.59	0.69	6.07
2700.0	0.99	22.85	0.80	5.72

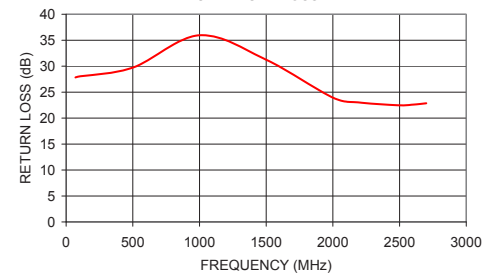
Config. G



TC1-1-13M-17+
INSERTION LOSS



TC1-1-13M-17+
INPUT RETURN LOSS



Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

For detailed performance specs & shopping online see web site

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuits' applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet 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.

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