

RF Transformer

50Ω 1300 to 2300 MHz

TCN1-23+



Generic photo used for illustration purposes only

CASE STYLE: FV1206-1

+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, 1000, 3000

Maximum Ratings

Operating Temperature -55°C to 100°C

Storage Temperature -55°C to 100°C

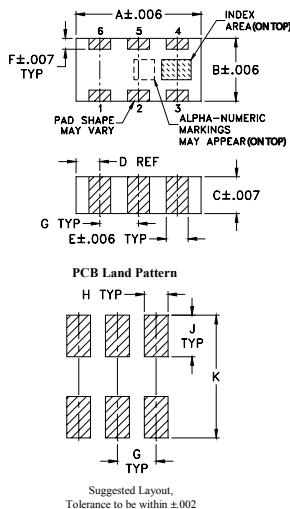
Input RF Power** 5W

**From 85°C derate linearly to 2.5W at 100°C
Permanent damage may occur if any of these limits are exceeded.

Pin Connections

PRIMARY DOT	4
PRIMARY(GND)	2,5
SECONDARY DOT	1
SECONDARY	6
NOT USED	3

Outline Drawing



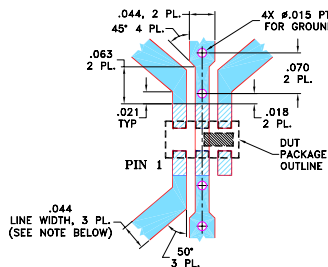
Outline Dimensions ()

A	B	C	D	E	F
.126	.063	.035	.024	.022	.011
3.20	1.60	0.89	0.61	0.56	0.28
G	H	J	K	wt	
.039	.024	.042	.123	grams	
0.99	0.61	1.07	3.12		.020

Product Marking: T1

Demo Board MCL P/N: TB-287

Suggested PCB Layout (PL-163)



- NOTE:
- TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .020" ± .0015". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
 - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
 - Denotes PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER).
 - Denotes COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- wideband, 1300 to 2300 MHz
- miniature size, 0.12"x.06"x.037"
- LTCC construction
- low cost
- aqueous washable

Applications

- DECT
- PCS
- PHS
- PDS
- PDC

Electrical Specifications (T_{AMB} = 25°C)

Ω RATIO	FREQUENCY (MHz)	INSERTION* LOSS (dB)	PHASE UNBALANCE (Deg.) Typ.	AMPLITUDE UNBALANCE (dB) Typ.
1	1300-2300	0.7	5.0	0.7
	1800-2000	0.6	4.0	0.5

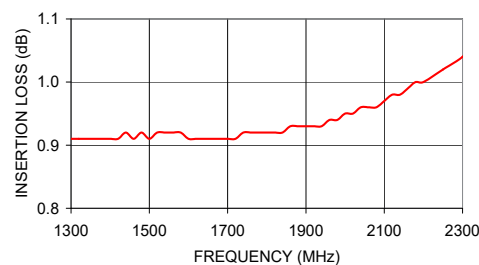
* Insertion Loss is referenced to mid-band loss, 0.8 dB

† Relative to 180°

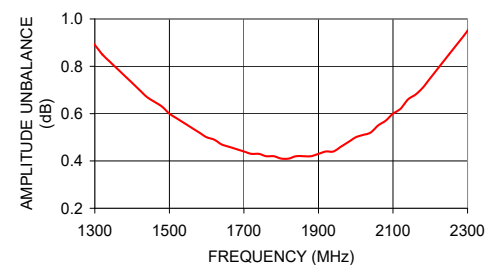
Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE (Deg.)
1300.00	0.91	15.33	0.89	1.52
1500.00	0.91	16.32	0.60	1.46
1600.00	0.91	17.14	0.50	1.81
1700.00	0.91	18.31	0.44	2.34
1800.00	0.92	19.68	0.41	3.09
1900.00	0.93	21.20	0.43	3.82
2000.00	0.95	22.85	0.50	4.57
2100.00	0.97	24.40	0.60	5.34
2200.00	1.00	25.70	0.75	6.05
2300.00	1.04	26.43	0.95	6.61

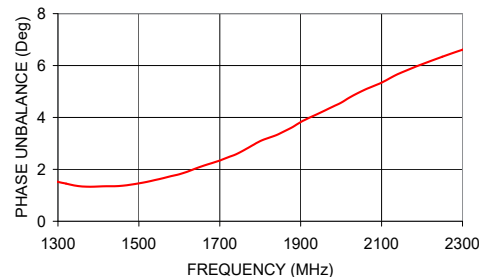
INSERTION LOSS



AMPLITUDE UNBALANCE



PHASE UNBALANCE



configuration G



Mouser Electronics

Authorized Distributor

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