

Surface Mount RF Transformer

50Ω 4.5 to 3000 MHz

TC1-1-13MG2+



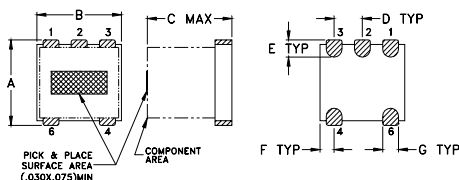
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	0.25W
DC Current	30mA

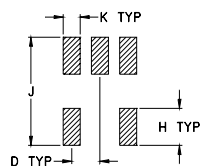
Pin Connections

PRIMARY DOT	6
PRIMARY	4
SECONDARY DOT	1
SECONDARY	3
NOT USED	2

Outline Drawing AT224-3



PCB Land Pattern

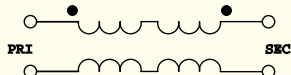


Suggested Layout,
Tolerance to be within ±0.02

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	

Config. G



Features

- wideband, 4.5 to 3000 MHz
- balanced transmission line
- leadless surface mount
- good return loss
- excellent amplitude unbalance, 0.5 dB typ and phase unbalance, 2 deg typ. in 1 dB bandwidth
- aqueous washable

Applications

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

Transformer Electrical Specifications

Ω RATIO	FREQUENCY (MHz)	INSERTION LOSS*			PHASE UNBALANCE (Deg.) Typ.		AMPLITUDE UNBALANCE (dB) Typ.	
		3 dB MHz	2 dB MHz	1 dB MHz	1 dB bandwidth	2 dB bandwidth	1 dB bandwidth	2 dB bandwidth
1	4.5-3000	2000-3000	1000-2000	4.5-1000	2	3	0.5	0.5

*Insertion Loss is referenced to mid-band loss, 0.5 dB typ.

Typical Performance Data

FREQUENCY (MHz)	INERTION LOSS (dB)	INPUT R. LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE (Deg.)
4.50	0.18	31.52	0.69	176.19
10.00	0.18	34.60	0.56	178.22
50.00	0.19	33.50	0.56	180.11
100.00	0.24	29.68	0.55	179.81
500.00	0.46	19.52	0.45	179.19
1000.00	0.68	16.22	0.14	178.41
1500.00	0.90	15.89	0.29	179.11
2000.00	1.11	16.97	0.71	181.28
2500.00	1.62	12.88	0.78	185.79
3000.00	3.02	6.79	0.49	167.68

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INSERTION LOSS

