

Engineering Development Model

RF Transformer

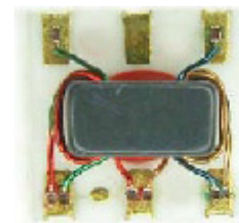
TRS1.5-ED13382/2

Impedance Ratio : 1.5

Important Note

This model has been designed, built and tested in our engineering department. Performance data represents model capability. At present it is a non-catalog model. On request, we can supply a final specification sheet, part number and price/delivery information.

Please click "Back", and then click "Contact Us" for Applications support.



CASE STYLE : AT577

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C				
Parameter		Min.	Typ.	Max. Units
Frequency		10		2000 MHz
Insertion Loss *	3 dB Bandwidth		10-2000	MHz
	2 dB Bandwidth		10-1600	MHz
	1 dB Bandwidth		10-800	MHz

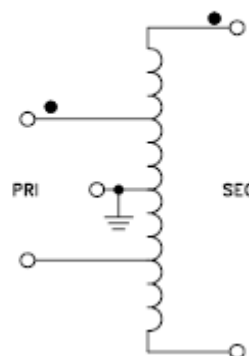
Note: * Insertion Loss is referenced to mid-band loss, .32 dB typ.

This is not a pure Guanella transformer but only balance to balance transformer and Secondary CT must be RF grounded.

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

PIN CONNECTIONS	
PRIMARY DOT	1
PRIMARY	3
SECONDARY DOT	6
SECONDARY	4
SECONDARY CT	2
NOT USED	5

Config. L



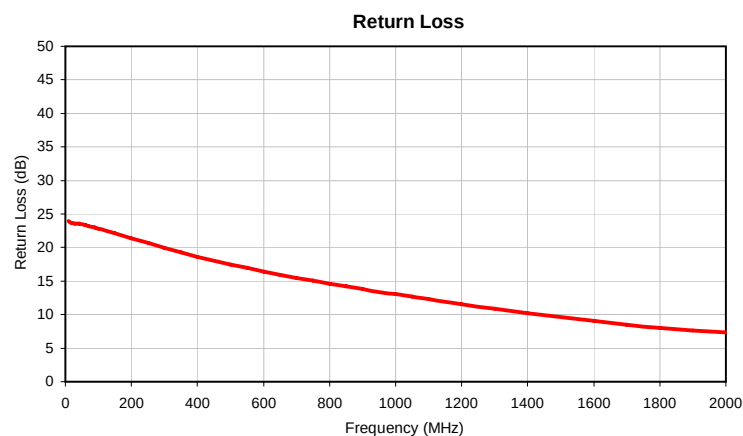
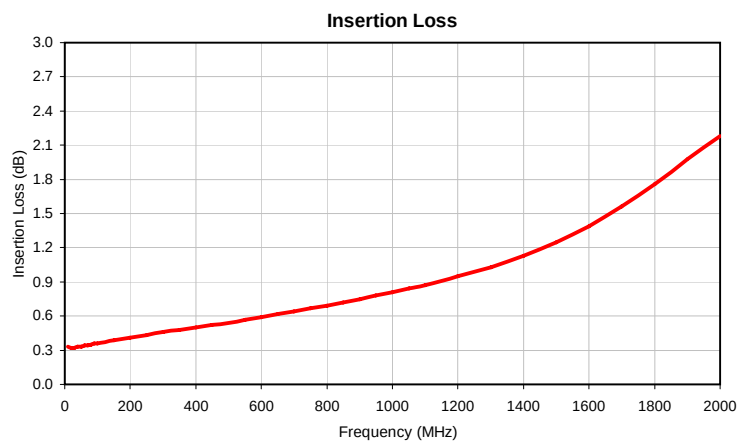
RF Transformer

TRS1.5-ED13382/2

Typical Performance Data

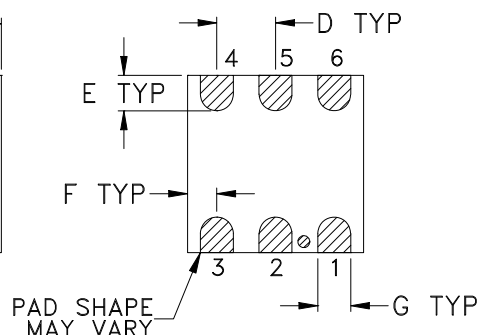
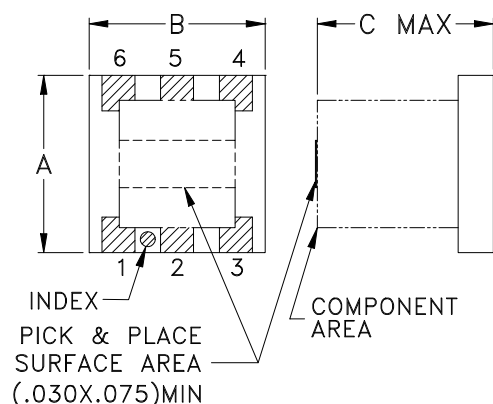
FREQUENCY MHz	INSERTION LOSS (dB)	RETURN LOSS (dB)
10.00	0.33	23.93
20.00	0.32	23.69
30.00	0.32	23.59
40.00	0.33	23.53
50.00	0.33	23.43
60.00	0.34	23.34
70.00	0.34	23.23
80.00	0.35	23.09
90.00	0.36	22.95
100.00	0.36	22.84
150.00	0.39	22.16
200.00	0.41	21.37
250.00	0.43	20.66
300.00	0.46	19.92
350.00	0.48	19.25
400.00	0.50	18.64
450.00	0.52	18.02
500.00	0.54	17.47
550.00	0.57	16.96
600.00	0.59	16.44
650.00	0.62	15.96
700.00	0.64	15.48
750.00	0.67	15.04
800.00	0.69	14.61
850.00	0.72	14.20
900.00	0.75	13.79
950.00	0.78	13.40
1000.00	0.81	13.03
1050.00	0.84	12.65
1100.00	0.87	12.28
1200.00	0.95	11.56
1300.00	1.03	10.87
1400.00	1.13	10.23
1500.00	1.25	9.63
1600.00	1.39	9.03
1700.00	1.56	8.47
1800.00	1.76	7.97
1900.00	1.98	7.59
2000.00	2.18	7.34

Typical Performance Data

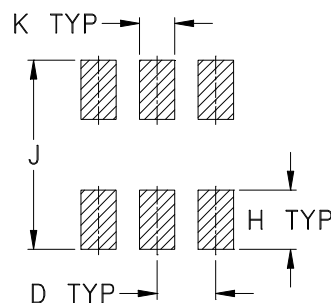


Outline Dimensions

AT577



PCB Land Pattern



Suggested Layout,
Tolerance to be within $\pm .002$

CASE #	A	B	C	D	E	F	G	H	J	K	L	WT. GRAMS
AT577	.200 (5.08)	.200 (5.08)	.200 (5.08)	.075 (1.91)	.050 (1.27)	.025 (0.64)	.026 (0.66)	.070 (1.78)	.220 (5.59)	.035 (0.89)	-- --	.15

Dimensions are in inches (mm). Tolerances: 2 Pl. $\pm .01$; 3 Pl. $\pm .005$

Notes:

- Open style, ceramic base.
- Termination finish:
For RoHS Case Style: 2-10 μ inch (.05-.25 microns) Gold over 100-300 μ inch (2.54-7.62 microns) Nickel plate.
For RoHS-5 Case Style: Tin-Lead plate



P.O. Box 350186, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site

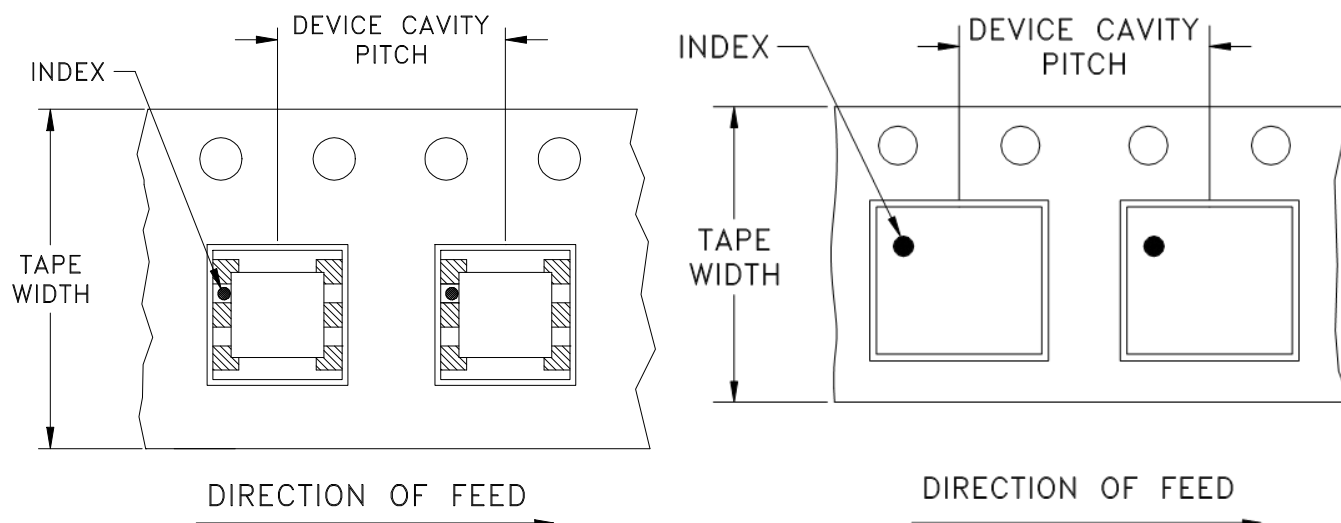


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RF/IF MICROWAVE COMPONENTS

Tape & Reel Packaging TR-F73

DEVICE ORIENTATION IN T&R



Tape Width, mm	Device Cavity Pitch, mm	Reel Size, inches	Devices per Reel	
12	8	7	Small quantity standards (see note)	20
				50
				100
				200
				500
		13	Standard	1000
				2000

Note: Please Consult individual model data sheet to determine device per reel availability.

Mini-Circuits carrier tape materials provide protection from ESD (Electro-Static Discharge) during handling and transportation. Tapes are static dissipative and comply with industry standards EIA-481/EIA-541.

Go to: www.minicircuits.com/pages/pdfs/tape.pdf



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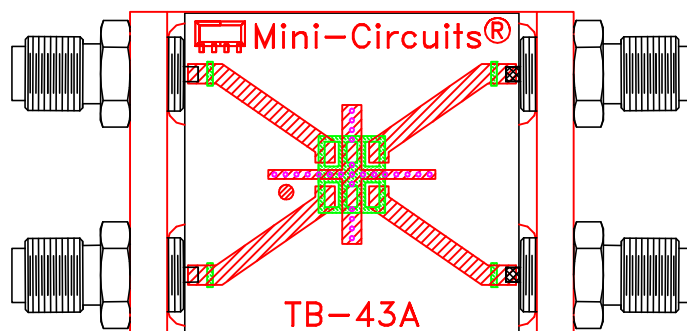
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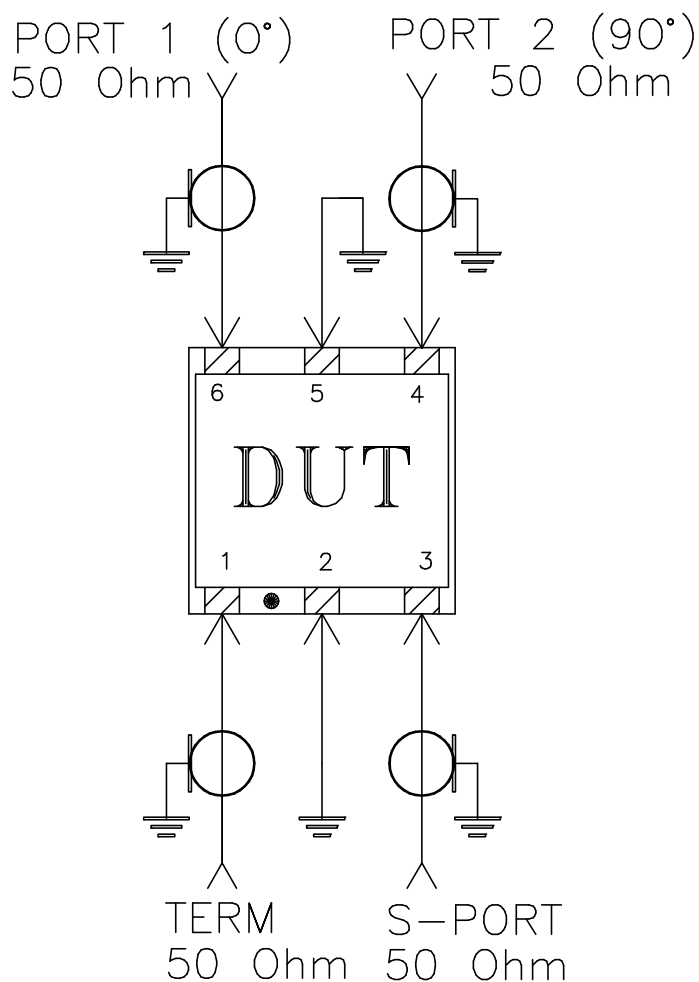
Mini-Circuits ISO 9001 & ISO 14001 Certified

Evaluation Board and Circuit

For Pin Connection refer to Data Sheet of the DUT



TB-43



Schematic Diagram

Notes:

1. SMA Female connectors.
2. PCB Material: Rogers R04350 or equivalent,
Dielectric Constant=3.5, Thickness=.030 inch.

 **Mini-Circuits®**



All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-40° to 85°C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Humidity	90 to 95% RH, 240 hours, 50°C	MIL-STD-202, Method 103, Condition A, Except 50°C and end-point electrical test done within 12 hours
Thermal Shock	-55° to 100°C, 100 cycles	MIL-STD-202, Method 107, Condition A-3, except +100°C
Solder Reflow Heat	Sn-Pb Eutetic Process: 225°C peak Pb-Free Process 245° - 250°C peak	J-STD-020, Table 4-1, 4-2 and 5-2, Figure 5-1
Solderability	10X Magnification	J-STD-002, 95% Coverage
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	50g, 11 ms, 1/2-sine, 18 shocks: 3 each direction, each of 3 axes	MIL-STD-202, Method 213, Condition A
Marking Resistance to Solvents	Isopropyl alcohol + mineral spirits at 25°C; terpene defluxer at 25°C; distilled water + proylene glycol monomethyl ether + monoethanolamine at 63°C to 70°C	MIL-STD-202, Method 215