

Non-Catalog Model

RF Transformer

Impedance Ratio: 1:4

ADT4-6T-1



CASE STYLE: CD637

Important Note

This is a non-catalog model and can be manufactured on specific request. Pricing and delivery information can be supplied upon request.

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

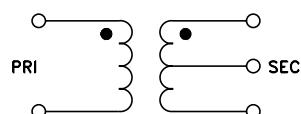
ELECTRICAL SPECIFICATIONS 50Ω @+25°C P_{IN}=0 dBm

Parameter		Min.	Typ.	Max.	Units
Frequency		0.03		300	MHz
Insertion Loss	3dB bandwidth	0.03		300	MHz
	2dB bandwidth	0.04		250	MHz
	1dB bandwidth	0.15		175	MHz
Amplitude Unb.	over 1dB freq. range		0.1		dB
	over entire freq. band		0.5		dB
Phase Unb.	over 1dB freq. range		1		deg.
	over entire freq. band		5		deg.

MAXIMUM RATINGS

Operating Temperature	-20°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	2W
DC Current	30mA

Configuration A



PIN CONNECTIONS

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

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Typical Performance Data

FREQUENCY (MHz)	AVERAGE INSERTION LOSS (dB)	INPUT RETURN LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE (deg.)
0.03	2.04	8.94	0.00	0.09
0.04	1.14	10.93	0.00	0.07
0.05	0.77	12.56	0.00	0.12
0.06	0.60	13.95	0.00	0.11
0.07	0.51	15.16	0.00	0.01
0.08	0.47	16.23	0.00	0.06
0.09	0.44	17.17	0.01	0.04
0.10	0.42	18.01	0.01	0.04
0.11	0.41	18.76	0.01	0.04
0.12	0.40	19.44	0.01	0.02
0.13	0.40	20.06	0.02	0.01
0.14	0.40	20.63	0.01	0.02
0.15	0.39	21.16	0.01	0.01
1.00	0.30	31.91	0.01	0.04
10.80	0.28	43.47	0.02	0.00
20.60	0.30	42.80	0.01	0.03
30.40	0.32	41.26	0.02	0.02
40.20	0.33	39.46	0.02	0.02
50.00	0.34	37.69	0.04	0.01
75.00	0.38	33.54	0.08	0.02
100.00	0.41	30.15	0.12	0.08
137.50	0.44	25.96	0.22	0.36
175.00	0.48	22.50	0.32	0.90
212.50	0.57	19.48	0.44	1.79
250.00	0.68	16.85	0.56	3.11
275.00	0.66	15.28	0.64	4.54
300.00	0.94	13.83	0.70	6.55



P.O. Box 350186, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4861 For detailed performance specs & shopping online see Mini-Circuits web site



The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

RF/MICROWAVE COMPONENTS

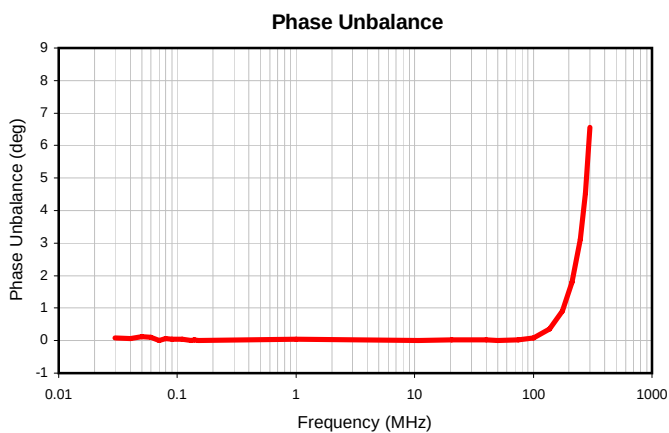
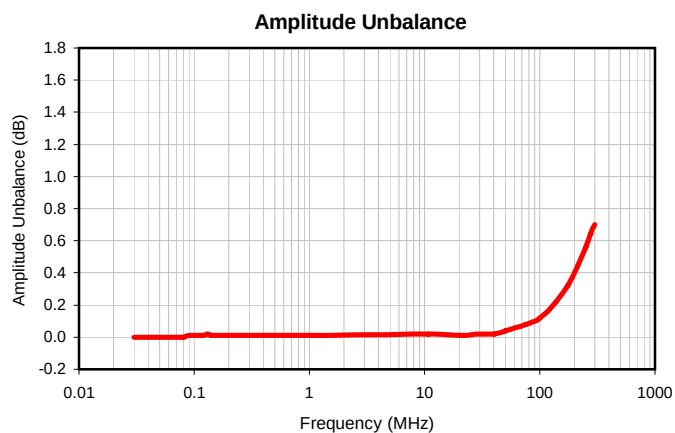
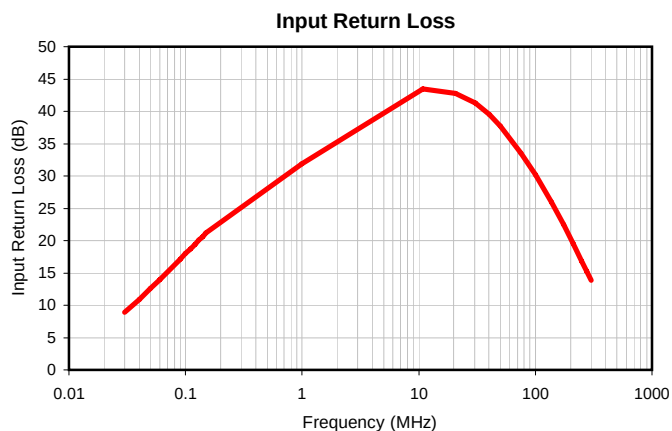
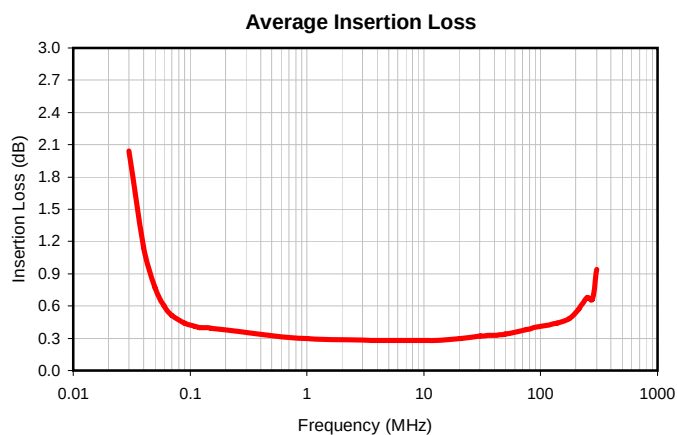


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Typical Performance Data



ISO 9001 ISO 14001 CERTIFIED

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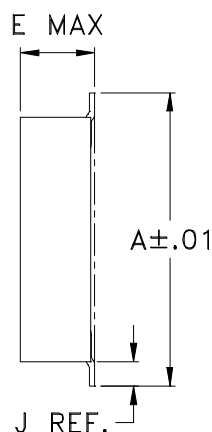
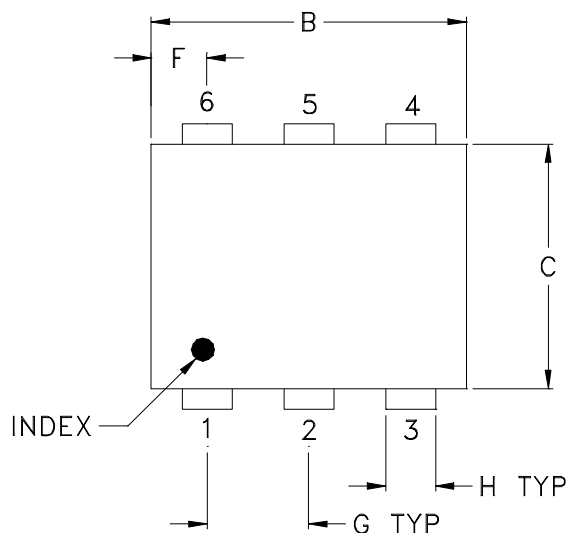
RF/MICROWAVE COMPONENTS



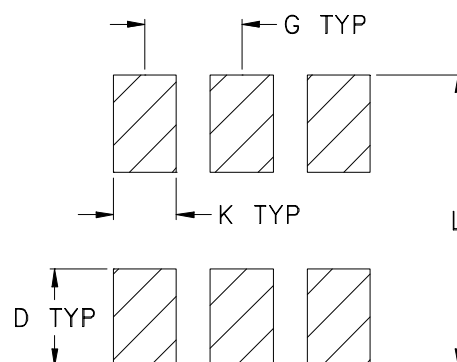
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CD541
CD542
CD636
CD637

Outline Dimensions



PCB Land Pattern



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

CASE#	A	B	C	D	E	F	G	H	J	K	L	WT, GRAM
CD541					.082 (2.08)							.15
CD542	.272 (6.91)	.310 (7.87)	.220 (5.58)	.100 (2.54)	.112 (2.84)	.055 (1.40)	.100 (2.54)	.030 (0.76)	.026 (0.66)	.065 (1.65)	.300 (7.62)	.20
CD636					.162 (4.11)							.25
CD637					.206 (5.23)							.40

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

Notes:

- Case material: Plastic.
- Termination finish:
For RoHS Case Styles: Tin plate over Nickel plate. All models, (+) suffix.
For RoHS-5 Case Styles: Tin-Lead plate. All models, no (+) suffix.



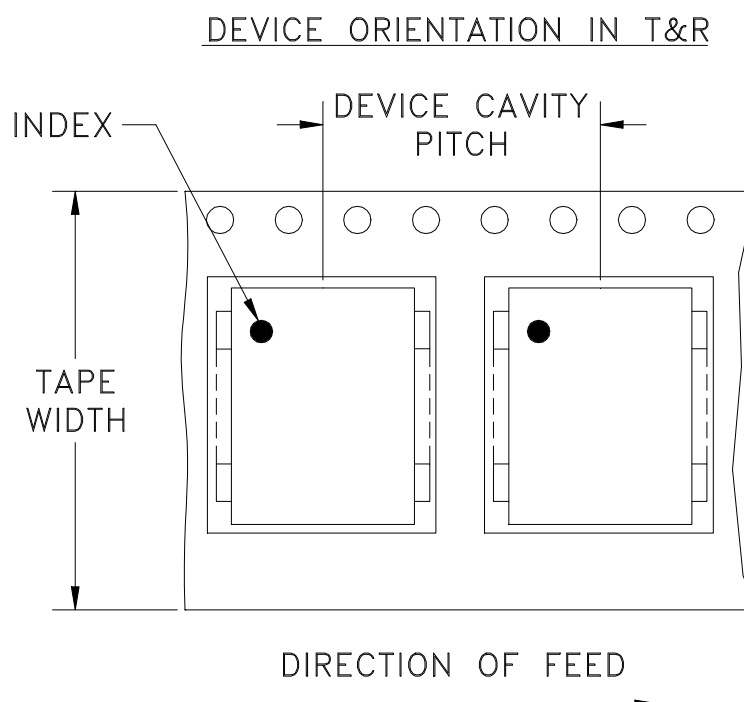
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Tape & Reel Packaging TR-F46



Tape Width, mm	Device Cavity Pitch, mm	Reel Size, inches	Devices per Reel
16	12	13	900

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.

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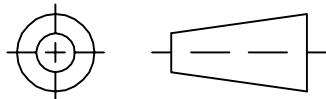
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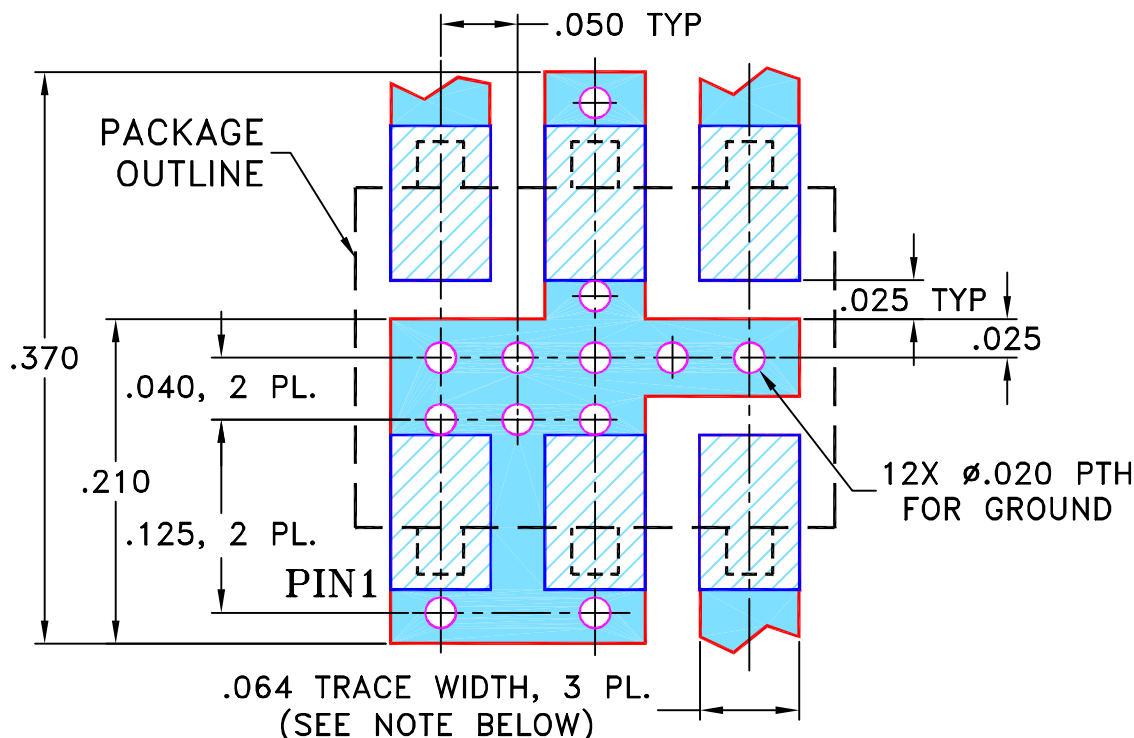
THIRD ANGLE PROJECTION



REVISIONS

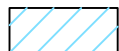
REV	ECN No.	DESCRIPTION	DATE	DR	AUTH
OR	M82272	NEW RELEASE	08/05/02	MMG	DJ
A	M102713	ADDED NOTE 2 & "...WITH SMOBC"	01/17/06	MMG	IL

SUGGESTED MOUNTING CONFIGURATION
FOR CD541/542/636/637 CASE STYLES,
"jv", "ju", "jw" PIN CONNECTIONS



- NOTES:** 1. TRACE WIDTH IS SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS .030" $\pm$.002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. 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

UNLESS OTHERWISE SPECIFIED

DIMENSIONS ARE IN INCHES

TOLERANCES ON:
 2 PL DECIMALS $\pm$
 3 PL DECIMALS $\pm$.005
 ANGLES $\pm$
 FRACTIONS $\pm$

INITIALS

DATE

DRAWN

MMG

07/17/02

CHECKED

WL

08/02/02

APPROVED

DJ

08/05/02



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13 Neptune Avenue
Brooklyn NY 11235

PL, jv/ju/jw, CD541/542/636/637, ADE, TB-02

SIZE
ACODE IDENT
15542DRAWING NO:
98-PL-051REV:
A

FILE: 98PL051

SCALE: 8:1

SHEET: 1 OF 1

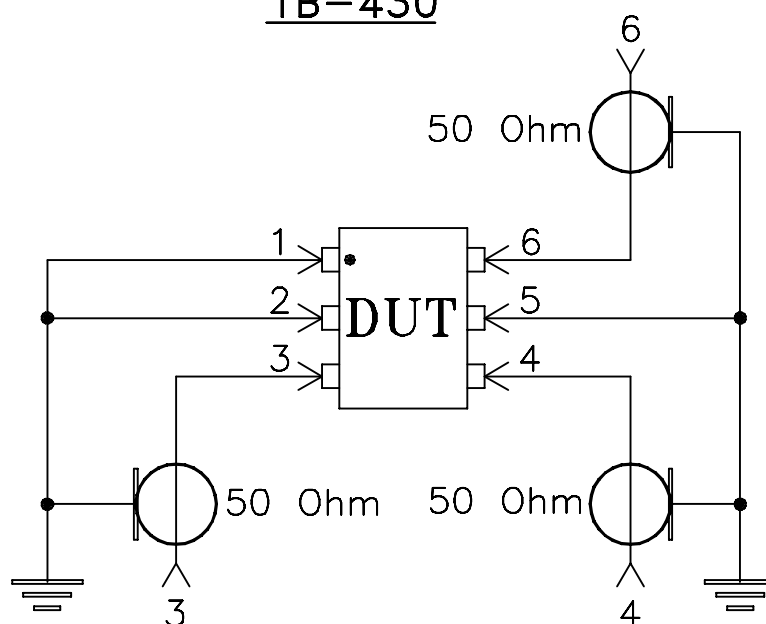
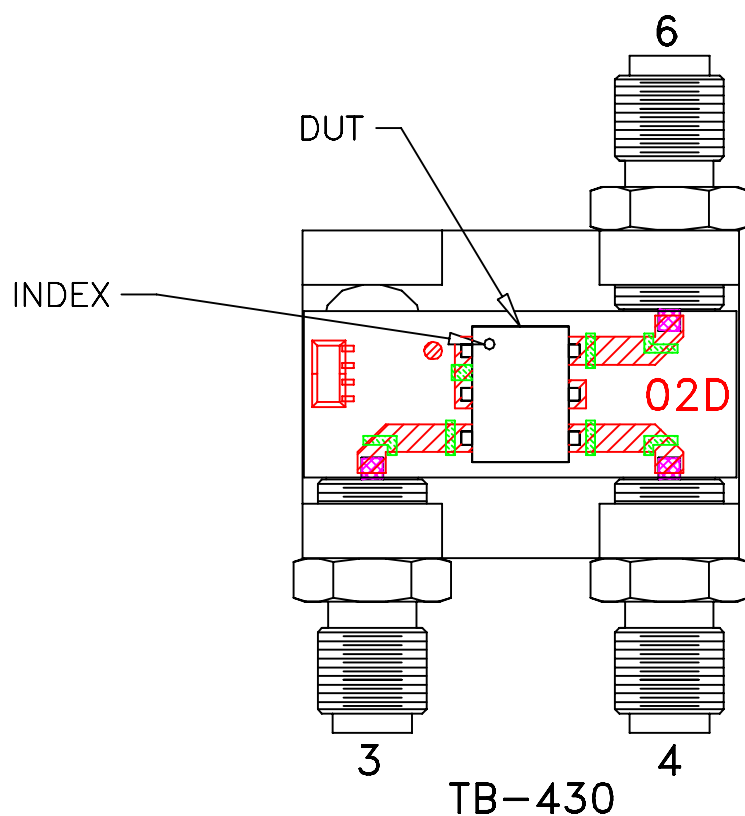
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ASHEETA1.DWG REV:A DATE:01/12/95

Evaluation Board and Circuit

For Pin Connections refer to Data Sheet of the DUT



Schematic Diagram

Notes:

1. SMA Female connectors.
2. PCB Material: Rogers R04350 or equivalent, Dielectric Constant=3.5, Thickness=.030 inch.
3. Must use ENA/PNA type agilent's network analyzers with impedance conversion option to convert ports to appropriate impedances.

 **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	-20° 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