

Low Pass Filter SMT

LFCN-ED17071/4

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 : FV1206-4

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C				
Parameter	Min.	Typ.	Max.	Units
Passband (Loss < 1.2 dB)	DC		12500	MHz
fco Nom. (Loss 3 dB)	--	14150	--	MHz
Stopband F 20 (loss, dB)	--	15350	--	MHz
30 (loss, dB)	--	15950	--	MHz
FR 20 (loss, dB)	--	>20000	--	MHz
Passband VSWR	--	1.8	--	(:1)
Stopband VSWR	--	30	--	(:1)

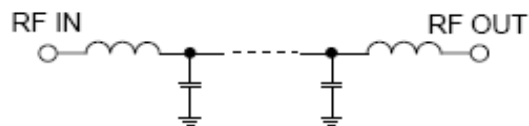
MAXIMUM RATINGS	
Operating Temperature	-55°C to +100°C
Storage Temperature	-55°C to +100°C
RF Power Input ⁽¹⁾	8 W @ 25°C

⁽¹⁾ Derates linearly to 3W @ 100°C

Permanent damage may occur if any of these limits are exceeded.

PIN CONNECTIONS	
RF IN	1
RF OUT	3
GROUND	2,4

Functional Schematic



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 • Fax (718) 332-4661 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

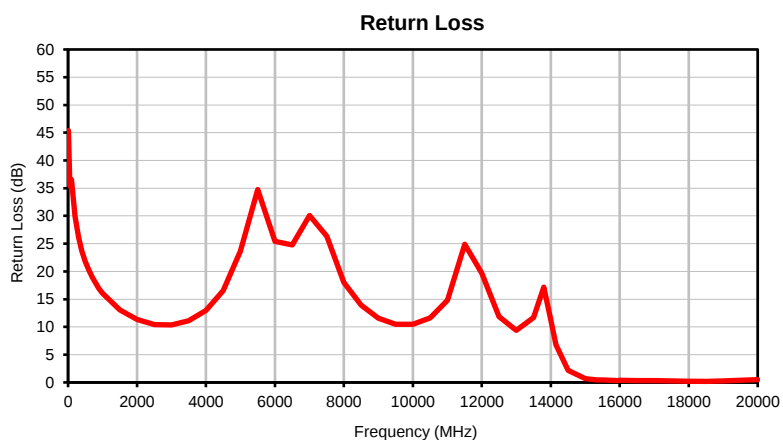
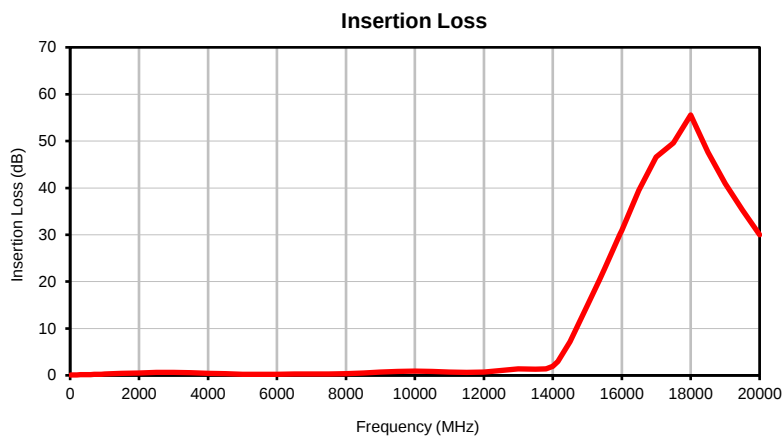
IF/RF MICROWAVE COMPONENTS

REV. X1
LFCN-17071/4
7/19/2018
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Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)
10	0.06	45.38
50	0.08	35.39
100	0.10	36.52
200	0.11	29.96
300	0.13	26.22
400	0.14	23.74
500	0.16	21.77
600	0.17	20.28
700	0.20	18.93
800	0.21	17.83
900	0.24	16.87
1000	0.26	16.06
1500	0.39	13.05
2000	0.52	11.33
2500	0.60	10.45
3000	0.62	10.37
3500	0.56	11.11
4000	0.44	12.96
4500	0.32	16.54
5000	0.25	23.71
5500	0.23	34.73
6000	0.24	25.42
6500	0.26	24.76
7000	0.26	30.09
7500	0.28	26.32
8000	0.36	18.05
8500	0.50	13.95
9000	0.68	11.55
9500	0.83	10.47
10000	0.89	10.49
10500	0.85	11.62
11000	0.72	14.78
11500	0.62	24.92
12000	0.70	19.69
12500	1.02	11.84
13000	1.35	9.39
13500	1.32	11.68
13800	1.37	17.15
14000	1.94	11.20
14150	2.96	6.79
14500	7.20	2.19
15000	14.91	0.69
15350	20.40	0.43
15500	22.77	0.42
15950	30.12	0.35
16000	30.93	0.37
16500	39.48	0.34
17000	46.58	0.31
17500	49.62	0.29
18000	55.57	0.23
18500	47.59	0.18
19000	40.89	0.25
19500	35.24	0.36
20000	30.03	0.49

Typical Performance Curves



DEVICE ORIENTATION IN T&R

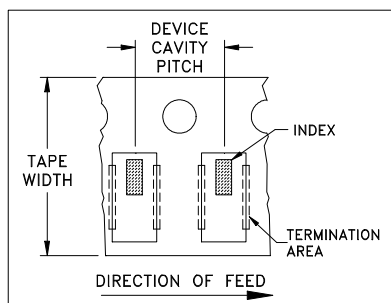


ILLUSTRATION 1



ILLUSTRATION 2



ILLUSTRATION 3

Applicable Case Styles

FV1206-1
FV1206-3

Applicable Case Styles

FV1206-4
FV1206-5
FV1206-6
FV1206-7
FV1206-9

Applicable Case Styles

FV1206-11
FV1206-12
GE0805C-18
NL1008C-6
NL1008C-7
NL1008C-9
NL1008C-10
NL1008C-12

Tape Width, mm	Device Cavity Pitch, mm	Reel Size, inches	Devices per Reel	
8	4	7	Small quantity standards (see note)	20
				50
				100
				200
				500
				1000
			Standard	3000

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

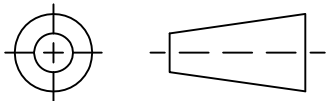


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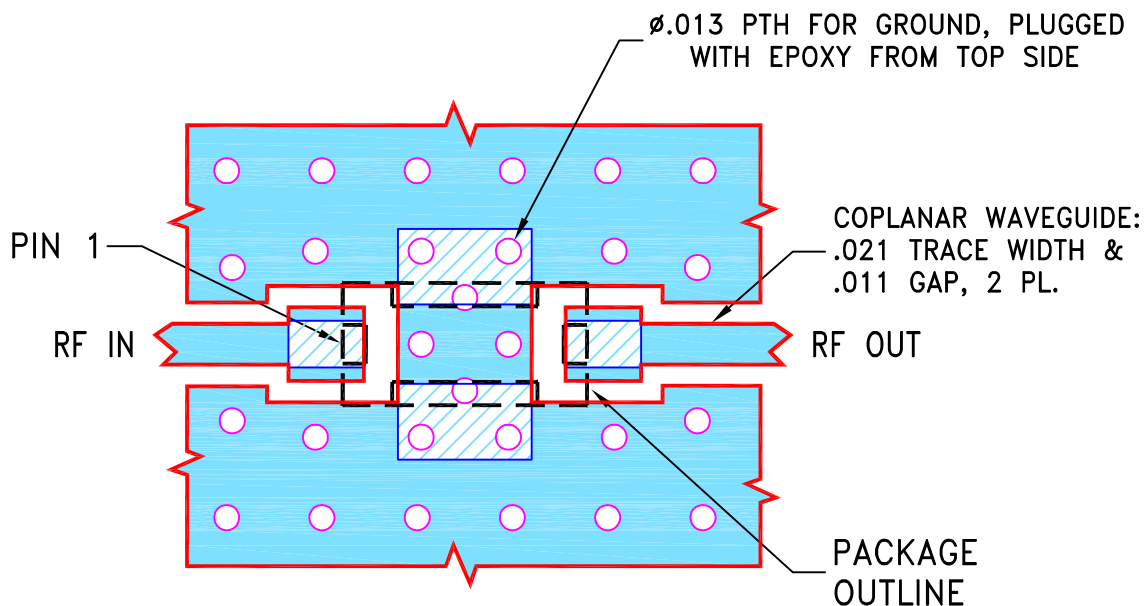
THIRD ANGLE PROJECTION



REVISIONS

REV	ECN No.	DESCRIPTION	DATE	DR	AUTH
OR	M166277	NEW RELEASE	02/20/18	ITG	BK

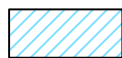
SUGGESTED MOUNTING CONFIGURATION
FOR FV1206-4 CASE STYLE, "04FL01" PIN CODE

**NOTES:**

1. TRACE WIDTH & GAP PARAMETERS ARE SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS $.010 \pm .001$. COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH & GAP 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

INITIALS

DATE

DIMENSIONS ARE IN INCHES

TOLERANCES ON:

2 PL DECIMALS $\pm$ 3 PL DECIMALS $\pm$.005ANGLES $\pm$ FRACTIONS $\pm$

DRAWN

ITG

02/12/18

CHECKED

GF

02/20/18

APPROVED

BK

02/20/18

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SIZE

A

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98PL546

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10:1

SHEET:

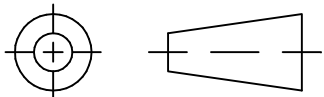
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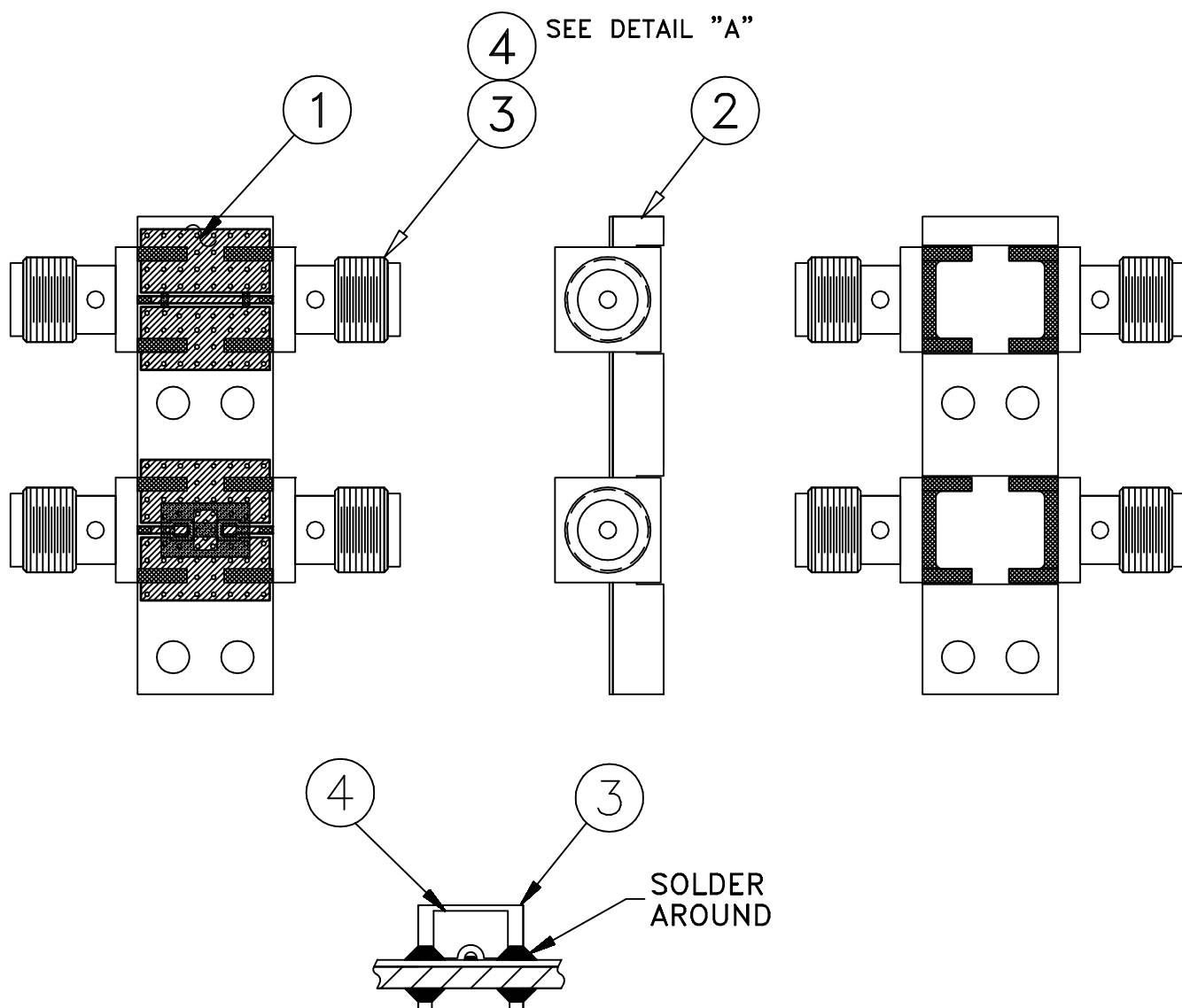
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THIRD ANGLE PROJECTION



REVISIONS

REV	ECN No.	DESCRIPTION	DATE	DR	AUTH
OR	M147545	NEW RELEASE	02.18	MF	AD

DETAIL "A"

SOLDERING CONNECTOR

NOTE:

FOR ITEM DESCRIPTIONS, REFER TO -09 PAGE.
 DESIGNATION NUMBERS ON -20 PAGE CORRESPOND TO THE
 NUMBERS ON -09 PAGE.

UNLESS OTHERWISE SPECIFIED

INITIALS

DATE

DIMENSIONS ARE IN INCHES

TOLERANCES ON:

2 PL DECIMALS ±

3 PL DECIMALS ±

ANGLES ±

FRACTIONS ±

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TB,HFCN/LFCN,FV1206-4,50 OHM

 SIZE
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 OR

FILE: WTB-810+

SCALE: 2:1

SHEET: 1 OF 1



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	-55° to 100°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
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, Para 4.2.5, Test S, 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