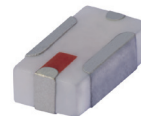


LTCC Bandpass Filter

BFCN-8350+

50Ω 8250 to 8450 MHz



CASE STYLE: FV1206-4

The Big Deal

- Small size 3.2mm x 1.6mm
- Pass band (8250-8450 MHz)
- Low Insertion Loss (1.8 dB typical)
- Sharp rejection peaks close to stop band

Product Overview

The BFCN-8350+ LTCC Band Pass Filter is constructed with 5 layers in order to achieve a miniature size and high repeatability of performance. Wrap-around terminations minimize variations in performance due to parasitics. Covering 8350 MHz $\pm$ 100 MHz, these units offer low insertion loss and good rejection at the band reject edges.

Key Features

Feature	Advantages
Small Size (3.20mm x1.6 mm)	Allows for high layout density of circuit boards, while minimizing affects of parasitics.
Rejection peaks close to pass band	Provides good rejection of signals close to the pass band, for improved system performance.
Wrap around termination	Provides excellent solderability and easy visual inspection capability.
LTCC construction	Provides a rugged package that is well suited for tough environments including high humidity and high temperature extremes.

Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp



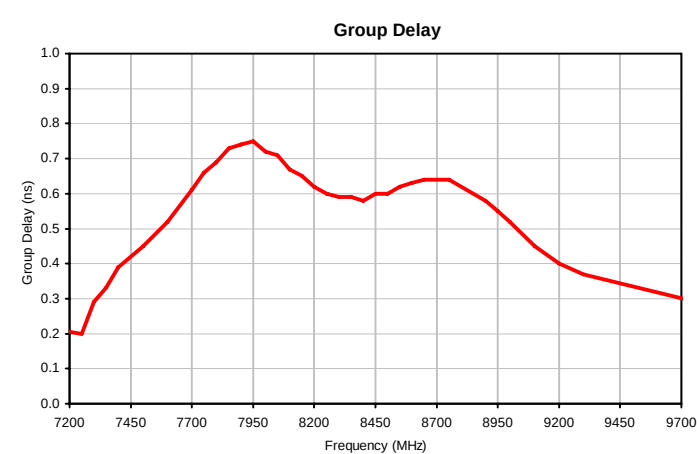
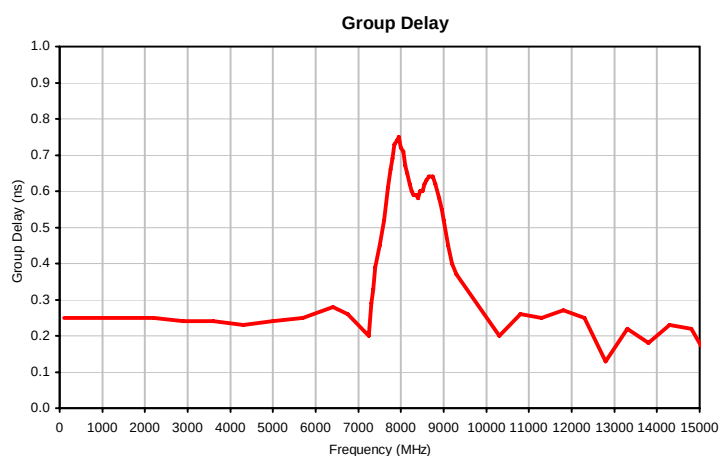
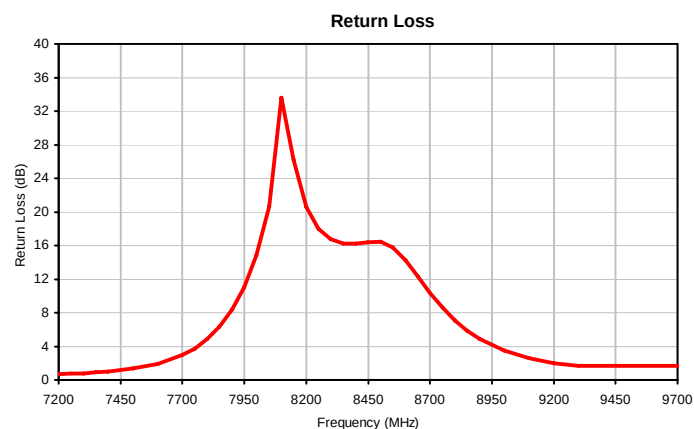
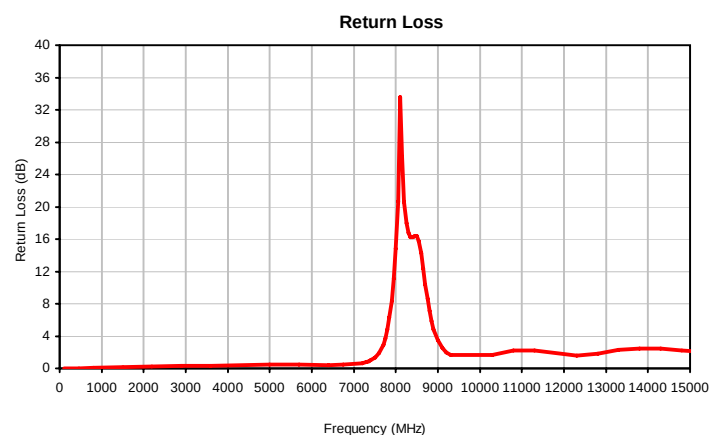
Typical Performance Data

FREQUENCY	INSERTION LOSS	RETURN LOSS	FREQUENCY	GROUP DELAY
(MHz)	(dB)	(dB)	(MHz)	(ns)
100.0	49.29	0.01	100.0	0.25
450.0	36.29	0.03	450.0	0.25
800.0	31.37	0.06	800.0	0.25
1500.0	26.27	0.14	1500.0	0.25
2200.0	23.55	0.22	2200.0	0.25
2900.0	21.98	0.28	2900.0	0.24
3600.0	21.00	0.33	3600.0	0.24
4300.0	20.28	0.41	4300.0	0.23
5000.0	19.72	0.47	5000.0	0.24
5700.0	19.67	0.46	5700.0	0.25
6400.0	20.74	0.42	6400.0	0.28
6750.0	23.97	0.46	6750.0	0.26
7200.0	31.32	0.67	7250.0	0.20
7250.0	26.87	0.74	7300.0	0.29
7300.0	23.58	0.80	7350.0	0.33
7350.0	20.89	0.89	7400.0	0.39
7400.0	18.52	1.01	7500.0	0.45
7500.0	14.49	1.34	7600.0	0.52
7600.0	10.99	1.91	7700.0	0.61
7700.0	7.92	2.95	7750.0	0.66
7750.0	6.57	3.74	7800.0	0.69
7800.0	5.37	4.87	7850.0	0.73
7850.0	4.33	6.35	7900.0	0.74
7900.0	3.51	8.35	7950.0	0.75
7950.0	2.87	11.06	8000.0	0.72
8000.0	2.42	14.83	8050.0	0.71
8050.0	2.12	20.66	8100.0	0.67
8100.0	1.95	33.62	8150.0	0.65
8150.0	1.83	26.20	8200.0	0.62
8200.0	1.78	20.60	8250.0	0.60
8250.0	1.75	17.97	8300.0	0.59
8300.0	1.74	16.79	8350.0	0.59
8350.0	1.74	16.22	8400.0	0.58
8400.0	1.75	16.20	8450.0	0.60
8450.0	1.78	16.39	8500.0	0.60
8500.0	1.84	16.42	8550.0	0.62
8550.0	1.94	15.80	8600.0	0.63
8600.0	2.10	14.28	8650.0	0.64
8650.0	2.34	12.38	8700.0	0.64
8700.0	2.71	10.38	8750.0	0.64
8750.0	3.16	8.60	8800.0	0.62
8800.0	3.74	7.11	8850.0	0.6
8850.0	4.43	5.86	8900.0	0.58
8900.0	5.22	4.87	8950.0	0.55
9000.0	7.02	3.47	9000.0	0.52
9100.0	9.02	2.57	9100.0	0.45
9200.0	11.13	2.00	9200.0	0.4
9300.0	13.31	1.64	9300.0	0.37
10300.0	24.53	1.69	10300.0	0.2
10800.0	20.46	2.20	10800.0	0.26
11300.0	19.25	2.23	11300.0	0.25
11800.0	18.99	1.89	11800.0	0.27
12300.0	20.01	1.56	12300.0	0.25
12800.0	21.90	1.83	12800.0	0.13
13300.0	21.68	2.28	13300.0	0.22
13800.0	22.37	2.43	13800.0	0.18
14300.0	21.55	2.47	14300.0	0.23
14800.0	22.81	2.21	14800.0	0.22
15050.0	23.94	2.12	15050.0	0.17

Ceramic Bandpass Filter

BFCN-8350+

Typical Performance Curves



P.O. Box 350166, Brooklyn, New York 11235-0003 • Fax (718) 934-4500 • Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site www.minicircuits.com



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IF/RF MICROWAVE COMPONENTS



REV. X2
BFCN-8350+
2/18/2010
Page 1 of 1

Tape & Reel Packaging

TR-F75

DEVICE ORIENTATION IN T&R

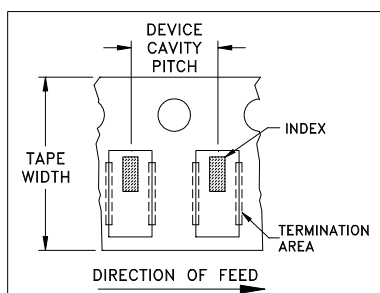


ILLUSTRATION 1

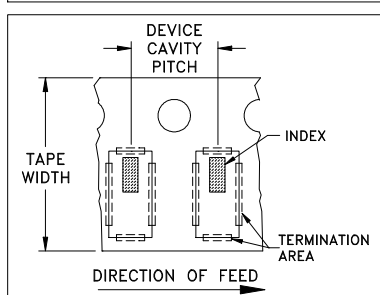


ILLUSTRATION 2

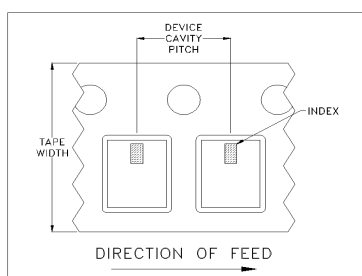


ILLUSTRATION 3

Applicable Case Styles
FV1206-1
FV1206-3

Applicable Case Styles
FV1206-4
FV1206-5
FV1206-6
FV1206-7
FV1206-9
JC0603C-1

Applicable Case Styles
NL1008C-6
FV1206-12
NL1008C-9
NL1008C-10

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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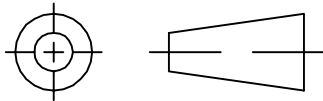
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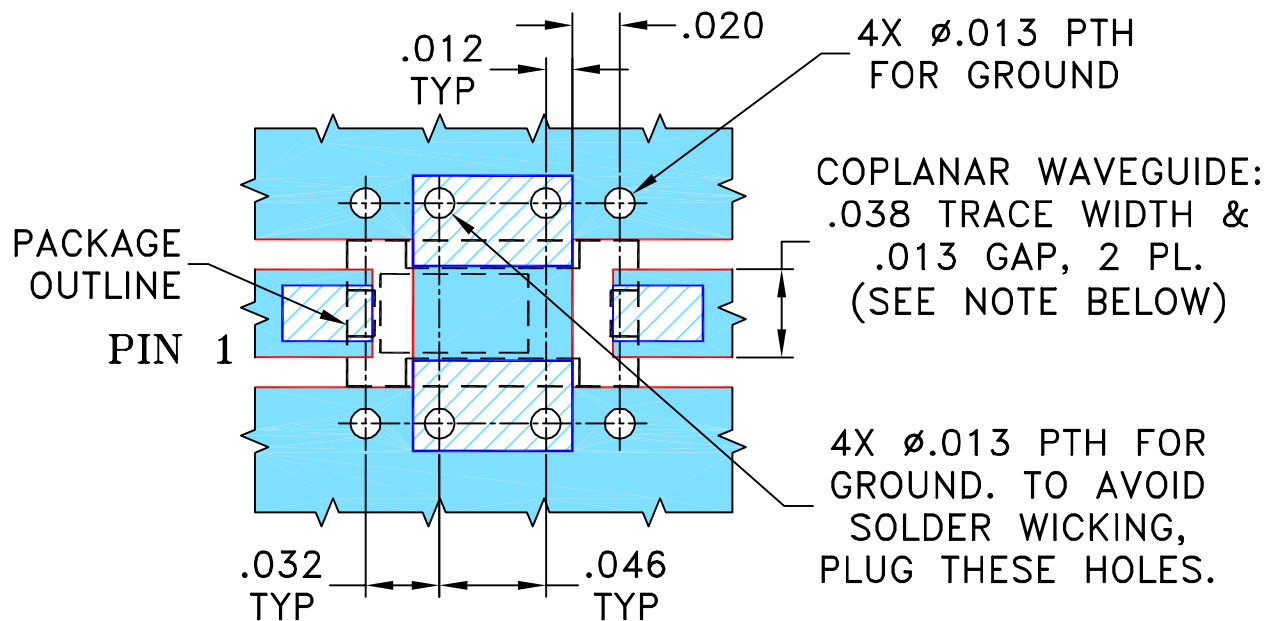
THIRD ANGLE PROJECTION



REVISIONS

REV	ECN No.	DESCRIPTION	DATE	DR	AUTH
OR	M123589	NEW RELEASE	01/15/09	AV	ABD

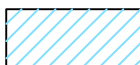
SUGGESTED MOUNTING CONFIGURATION
FOR FV1206-4 CASE STYLE, "04FL01" PIN CODE



- NOTE:** 1. TRACE WIDTH IS SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS .020" $\pm$.0015". 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

INITIALS

DATE

DIMENSIONS ARE IN INCHES

TOLERANCES ON:

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

DRAWN

AV

07/10/09

CHECKED

IL

01/15/09

APPROVED

ABD

01/15/09



Mini-Circuits®

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Brooklyn NY 11235

PL, 04FL01, FV1206-4, BFCN, TB-518+

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

SIZE
A

CODE IDENT
15542

DRAWING NO:

98-PL-305

REV:

OR

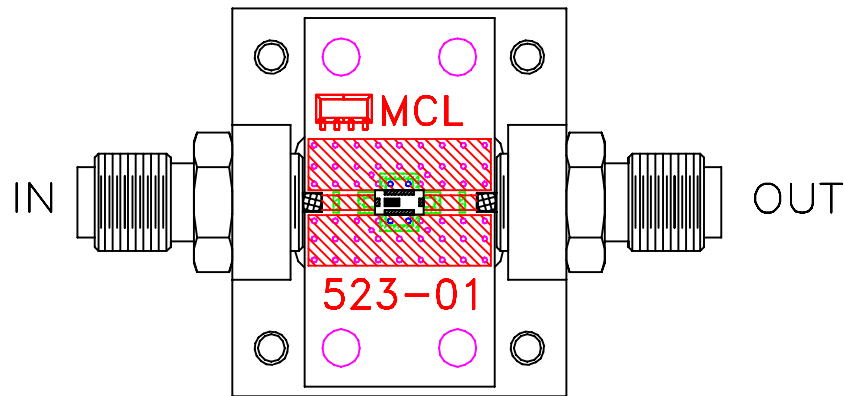
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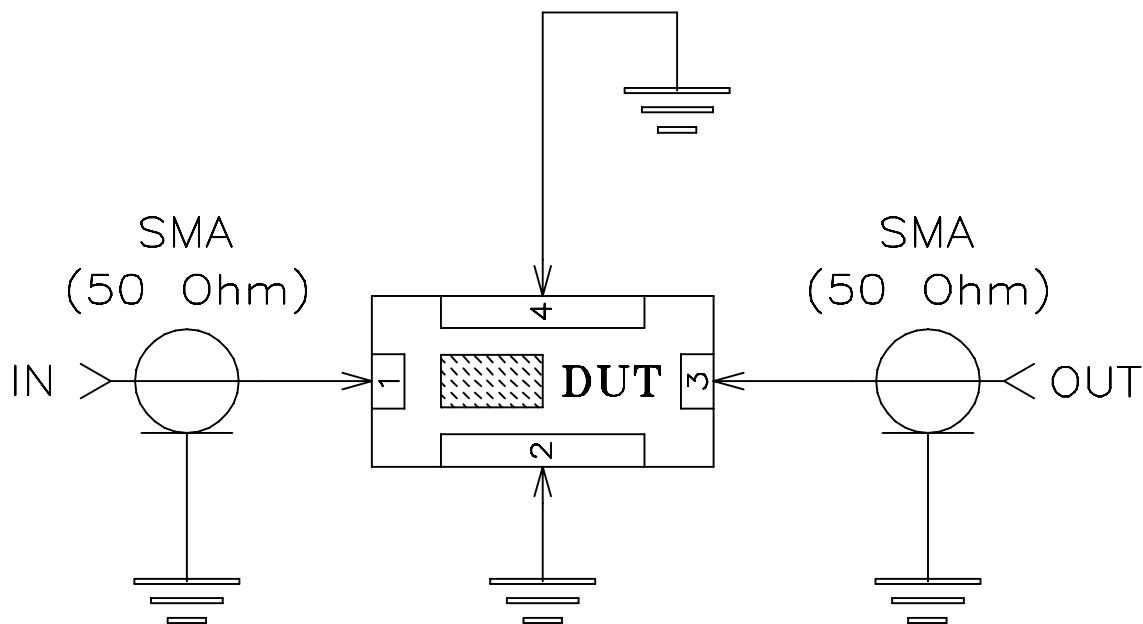
SHEET:

1 OF 1

Evaluation Board and Circuit



TB-518+



Schematic Diagram

Notes:

1. 50 Ohm SMA Female connectors.
2. PCB Material: R04350 or equivalent,
Dielectric Constant=3.5, Thickness=.020 inch.

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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
Barometric Pressure	100,000 Feet	MIL-STD-202, Method 105, Condition D
Humidity	90% RH, 65°C Units may require bake-out after humidity to restore full performance.	MIL-STD-202, Method 103
Thermal Shock	-65° to 125°C, 5 cycles	MIL-STD-202, Method 107, Condition B
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	100g, 6ms sawtooth, 3 shocks each direction 3 axes (total 18)	MIL-STD-202, Method 213, Condition I