

Low Pass Filter

SXLP-EDU1701

Surface Mount

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 : HF1139

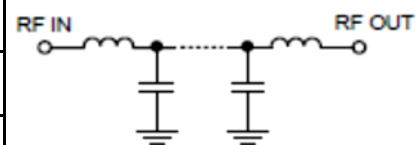
ELECTRICAL SPECIFICATIONS 50Ω @ +25°C

Parameter	Min.	Typ.	Max.	Units
Passband (Loss < 2 dB)	DC		2.5	MHz
Insertion loss 3 dB		2.9		MHz
Stopband (Loss > 20 dB)		4.2	200	MHz
(Loss > 40 dB)		5.5	200	MHz
Passband VSWR		1.5		(:1)
Stopband VSWR		20		(:1)

Functional Schematic

MAXIMUM RATINGS

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	200mW



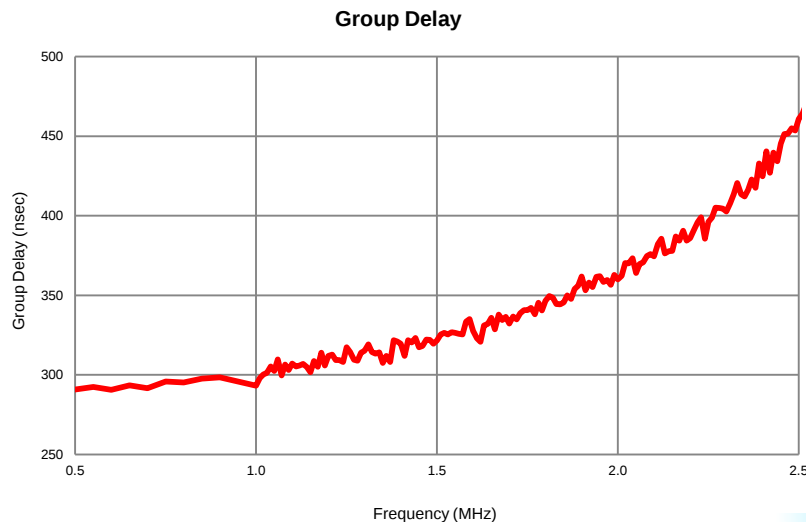
PIN CONNECTIONS

Input	1
Output	8
Ground	2,3,4,5,6,7

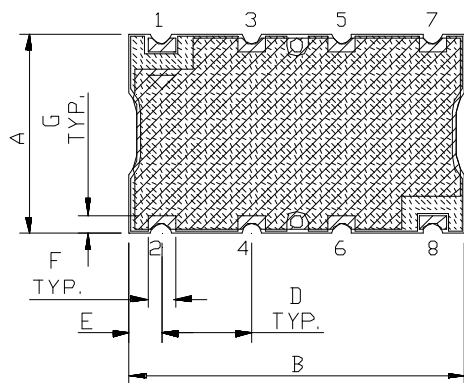
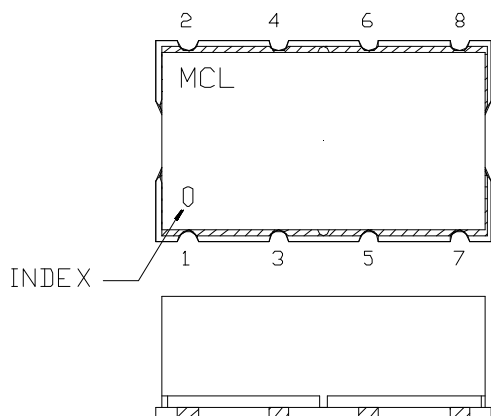
Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
0.3	0.10	29.81	0.3	289.15
0.5	0.11	27.39	0.4	290.19
1.0	0.16	32.26	0.5	290.88
1.5	0.25	33.50	0.6	290.54
1.8	0.33	32.76	0.7	291.72
2.0	0.41	25.89	0.8	295.24
2.5	0.72	22.93	0.9	298.46
2.9	2.78	6.70	1.0	293.24
3.5	17.11	0.78	1.1	307.21
4.2	31.82	0.47	1.2	312.04
5.0	44.60	0.39	1.3	315.09
5.5	51.23	0.36	1.4	319.53
8.0	79.11	0.30	1.5	321.70
10.0	91.45	0.28	1.6	327.55
30.0	91.82	0.23	1.7	332.25
50.0	88.88	0.23	1.8	346.63
60.0	93.93	0.23	1.9	361.75
80.0	97.76	0.24	2.0	359.97
100.0	93.28	0.23	2.1	374.46
120.0	93.82	0.23	2.2	385.92
150.0	95.01	0.23	2.3	402.58
170.0	88.19	0.22	2.4	424.83
190.0	85.60	0.22	2.5	460.82
200.0	98.75	0.22	2.6	507.45

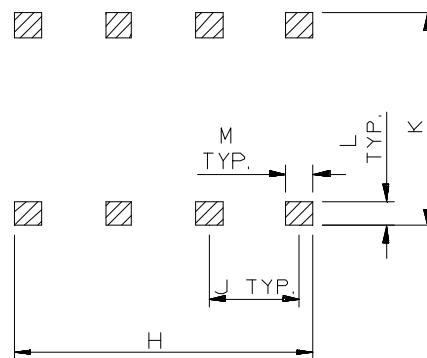
Typical Performance Curves



Outline Dimensions



PCB Land Pattern



CASE #	A	B	C	D	E	F	G	H	J	K	L	M	WT. GRAMS
HF1139	.44 (11.18)	.74 (18.80)	.27 (6.86)	.200 (5.08)	.07 (1.78)	.060 (1.52)	.040 (1.02)	.660 (16.76)	.200 (5.08)	.470 (11.94)	.055 (1.40)	.060 (1.52)	3.0

Dimensions are in inches (mm). Tolerances: 2 Pl. ± 0.015 "; 3 Pl. ± 0.01 "

Notes:

- Case material: Nickel-Silver alloy.
- Base: Printed wiring laminate.
- Termination finish:
 - For RoHS Case Styles: 2-5 μ inch (.05-.13 microns) Gold over 120-240 μ inch (3.05-6.10 microns) Nickel plate.
 - For RoHS-5 Case Styles: Tin-Lead plate.



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

RF/IF MICROWAVE COMPONENTS



Tape & Reel Packaging TR-F5



Tape Width, mm	Device Cavity Pitch, mm	Reel Size, inches	Devices per Reel
32	16	13	500

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

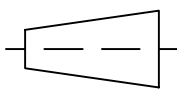


Distribution Centers NORTH AMERICA 800-654-7949 • 417-335-5935 • Fax 417-335-5945 • EUROPE 44-1252-832600 • Fax 44-1252-837010

Mini-Circuits ISO 9001 & ISO 14001 Certified

INTERNET <http://www.minicircuits.com>

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



REV	ECN No.	DESCRIPTION	DATE	DR	AUTH
OR	M101757	NEW RELEASE (FROM RAVON)	11/05	DK	HH
OR	R62293	NEW RELEASE (FROM RAVON)	11/05	DK	HH

.188 TYP.
 .055 TYP.
 PIN 1
 .064±.002
 TRACE WIDTH,
 2 PL.
 PACKAGE
 OUTLINE
 .740
 .150 TYP.
 .200 TYP.
 .070
 .440
 Ø.020 PTH.
 TYP.

DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

UNLESS OTHERWISE SPECIFIED	INITIALS		DATE
DIMENSIONS ARE IN INCHES	DRAWN	DK (RAYON)	29 NOV 05
TOLERANCES ON:	CHECKED	RZ (RAYON)	29 NOV 05
2 PL DECIMALS ±	APPROVED	HH (RAYON)	29 NOV 05
3 PL DECIMALS ± .005			
ANGLES ±			
FRACTIONS ±			

 Mini-Circuits®

THIS DOCUMENT AND ITS CONTENTS ARE THE PROPERTY OF MINI-CIRCUITS. EXCEPT FOR USE EXPRESSLY GRANTED, IN WRITING, TO ITS VENDORS, VENDEE AND THE UNITED STATES GOVERNMENT, MINI-CIRCUITS RESERVES ALL PROPRIETARY DESIGN, USE, MANUFACTURING AND REPRODUCTION RIGHTS THERETO. THESE CONTENTS SHALL NOT BE USED, DUPLICATED OR DISCLOSED TO ANY OUTSIDE PARTY, IN WHOLE OR IN PART, WITHOUT WRITTEN PERMISSION OF MINI-CIRCUITS.

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

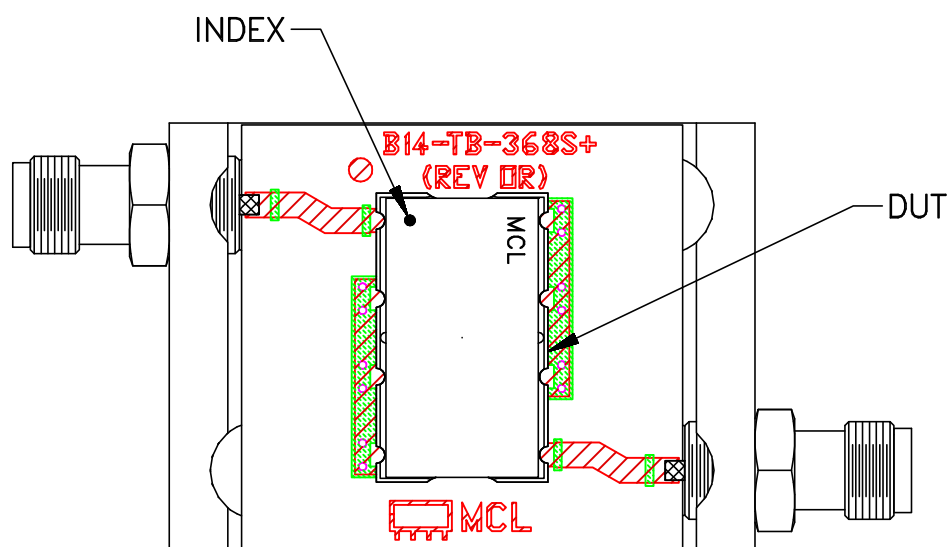


Mini-Circuits® 13 Neptune Avenue
Brooklyn NY 11235

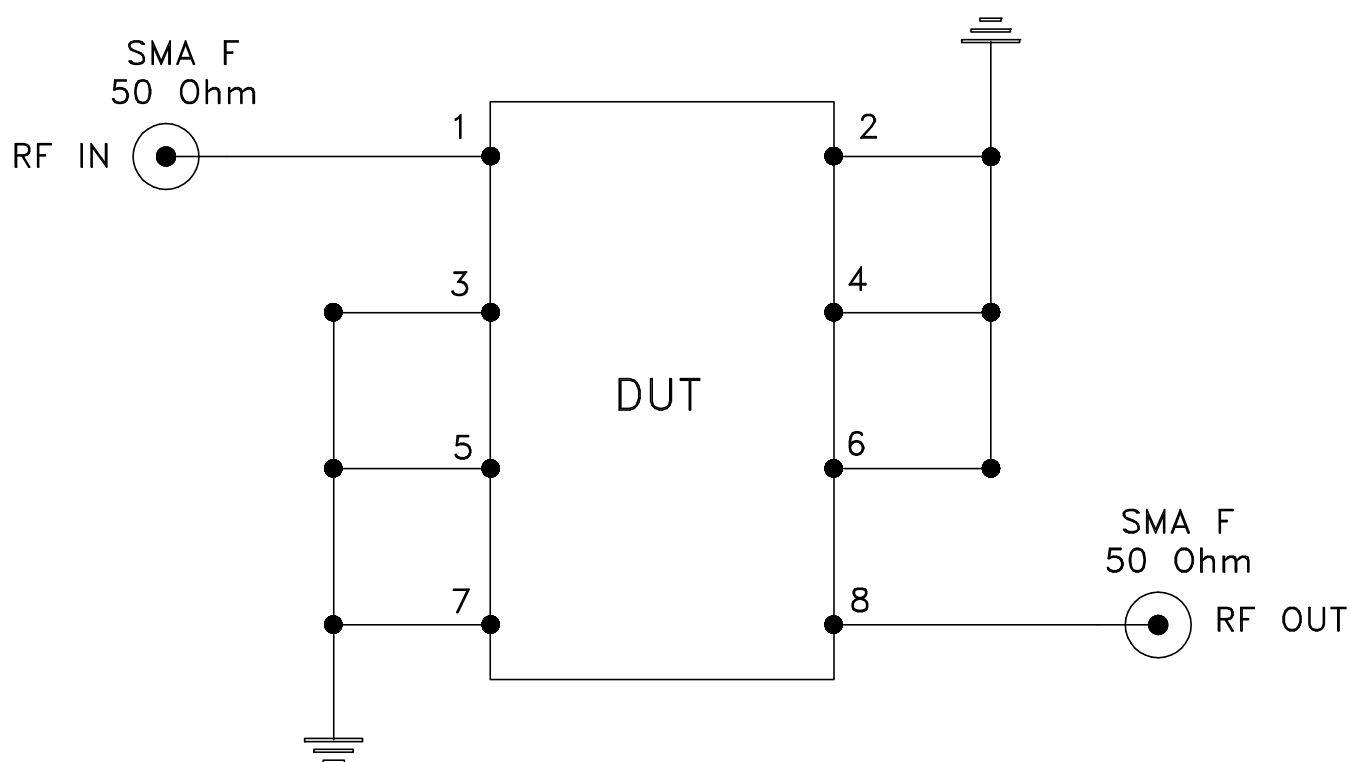
PL, cr, HF1139, SCLF, TB-368

SIZE A	CODE IDENT 15542	DRAWING NO: 98-PL-230		REV: OR
FILE: 98PL230		SCALE: 4:1	SHEET: 1 OF 1	

Evaluation Board and Circuit



TB-368



Schematic Diagram

Notes:

1. SMA Female connectors.
2. PCB Material: ROGERS R04350B 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