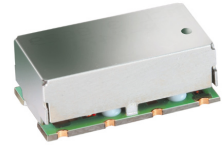


# Low Pass Filter

# SXLP-23+

50Ω DC to 23 MHz



CASE STYLE: HF1139

## Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W Max.

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

## Pin Connections

INPUT	1
OUTPUT	8
GROUND	2, 3, 4, 5, 6, 7

## Features

- high rejection
- sharp cut-off
- shielded package
- aqueous washable
- low cost

## Applications

- defense communications
- receivers / transmitters
- harmonic rejection

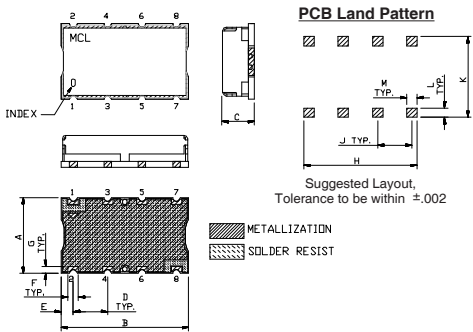
### +RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

## Low Pass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

PASSBAND (MHz)	f <sub>co</sub> , MHz Nom.	STOPBAND (MHz)		VSWR (:1)	
		(Loss > 20dB)	(Loss > 40dB)	Passband Typ.	Stopband Typ.
DC - 23	25	31 - 34	34 - 500	1.5	18

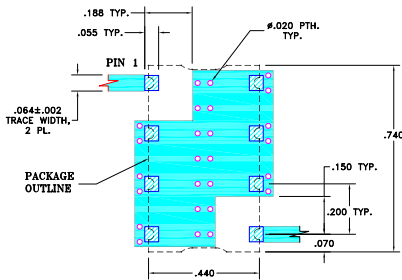
## Outline Drawing



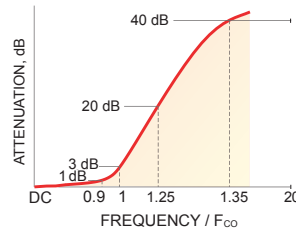
## Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	wt. grams
.44	.74	.27	.200	.07	.060	11.18	18.80	6.86	5.08	1.78	1.52	
						1.02	16.76	5.08	11.94	1.40	1.52	3.0

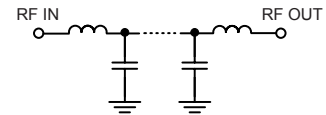
## Demo Board MCL P/N: TB-368 Suggested PCB Layout (PL-230)



## Typical Frequency Response

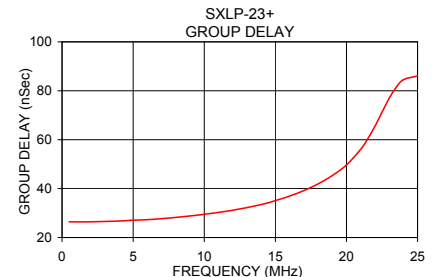
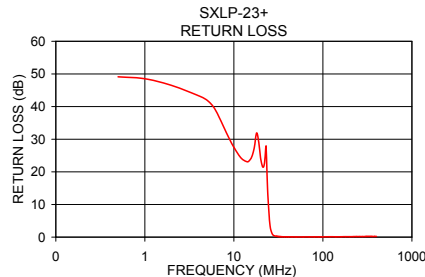
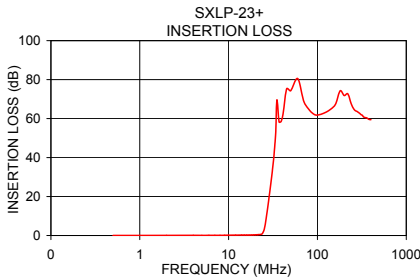


## Functional Schematic



## Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
	$\bar{x}$	$\sigma$			
0.5	0.05	0.01	49.11	0.5	26.41
5.0	0.08	0.00	41.94	1.0	26.39
10.0	0.15	0.00	27.54	2.0	26.41
20.0	0.35	0.01	24.09	4.0	26.73
23.0	0.58	0.02	27.90	5.0	27.08
24.0	1.00	0.03	13.75	6.0	27.29
25.0	2.70	0.08	5.80	8.0	28.23
25.5	4.30	0.13	3.58	9.0	28.84
26.0	6.42	0.17	2.22	10.0	29.50
27.0	11.43	0.23	0.96	12.0	31.15
29.0	22.00	0.33	0.35	12.0	31.15
31.0	32.70	0.46	0.22	14.0	33.48
34.0	53.83	1.49	0.14	16.0	36.94
50.0	74.31	2.19	0.07	18.0	41.92
100.0	61.81	0.99	0.08	19.0	45.32
200.0	71.86	1.85	0.14	20.0	49.68
300.0	62.65	1.37	0.20	22.0	65.49
400.0	59.44	1.01	0.22	23.0	76.93
500.0	68.98	1.95	0.24	25.0	86.06



### 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](http://www.minicircuits.com/MCLStore/terms.jsp)

