

Surface Mount Bandpass Filter

50Ω 238 to 242 MHz

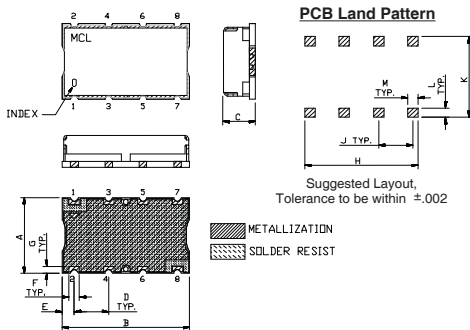
Maximum Ratings

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

Outline Drawing

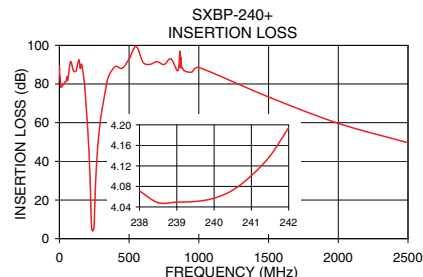
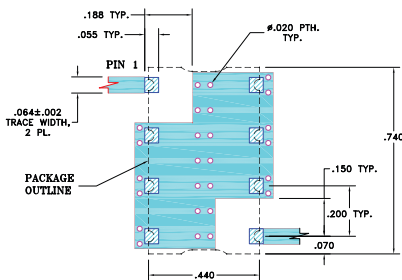


Outline Dimensions (inch mm)

A	B	C	D	E	F	
.44	.74	.27	.200	.07	.060	
11.18	18.80	6.86	5.08	1.78	1.52	
G	H	J	K	L	M	wt.
.040	.660	.200	.470	.055	.060	grams
1.02	16.76	5.08	11.94	1.40	1.52	3.0

Note: Please refer to case style drawing for details

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



Notes

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- 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

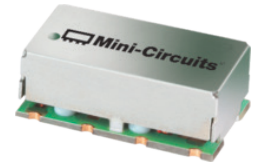
Features

- excellent rejection
- flat group delay @ passband
- good VSWR, 1.3:1 typ @ passband
- aqueous washable

Applications

- receivers / transmitters
- wire-line broadband access
- cable system (video & data)

SXBP-240+



Generic photo used for illustration purposes only
CASE STYLE: HF1139

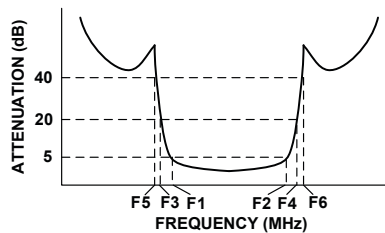
+RoHS Compliant

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

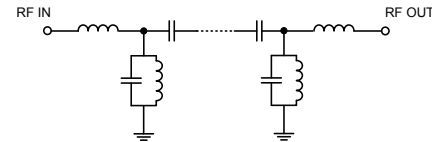
Bandpass Filter Electrical Specifications (T_{AMB} = 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 5dB)	STOPBANDS (MHz)				VSWR (:1)		
		Loss > 20dB		Loss > 40dB		Passband		Stopband
F _c	F ₁ - F ₂	F ₃	F ₄	F ₅	F ₆	Typ.	Max.	Typ.
240	238 - 242	220	260	210	275 - 2500	1.3	1.8	18

Typical Frequency Response



Functional Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
	$\bar{x}$	σ			
1.0	87.75	3.29	0.69	235.0	50.77
10.0	78.24	1.27	0.71	235.5	49.92
100.0	86.90	2.12	0.12	236.0	49.17
210.0	48.10	0.27	0.26	236.5	48.50
220.0	31.25	0.50	0.74	237.0	47.96
226.0	16.64	0.88	2.63	237.5	47.43
229.0	8.88	0.72	8.14	238.0	47.18
238.0	4.07	0.04	16.27	238.4	46.95
240.0	4.06	0.02	15.18	239.0	46.67
242.0	4.19	0.04	14.86	239.4	46.61
250.0	8.24	0.57	8.62	240.0	46.58
253.0	14.85	0.71	2.99	240.6	46.71
260.0	29.15	0.51	0.89	241.0	46.75
275.0	47.42	0.36	0.33	242.0	46.69
300.0	64.20	0.50	0.16	243.0	46.82
500.0	92.94	5.40	0.07	244.0	47.29
1500.0	73.28	0.76	0.29	244.5	47.83
2500.0	49.59	1.01	0.37	245.0	48.90

