Surface Mount

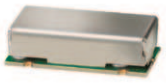
Bandpass Filter

BPF-B63+

50Ω 61 to 65 MHz

The Big Deal

- Narrow bandwidth (3.2%)
- High rejection (55 dB typical)
- Good VSWR (1.3:1 typical)
- Miniature shielded package



CASE STYLE: HZ1198

Product Overview

The BPF-B63+ is a narrow-band bandpass filter fabricated using SMT technology, It is enclosed in HZ1198 package. Covering a passband of 63 MHz ± 2 MHz, these units offer good matching within the passband and high rejection. This unit uses a miniature high Q capacitors and wire welded inductors for high reliability. In addition it has repeatable performance across production lots and consistent performance across temperature.

Key Features

Feature	Advantages
Flat group delay over pass band (18ns typical)	Flat group delay ensures that the signal distortion is very less.
Good VSWR, 1.3:1 typical over passband	This provides well matched input and output ports.
Sharp shape factor	Sharp shape factor helps in adjacent channel rejection and hence increased selectivity.
More than 50 dB rejection up to 2300MHz	This enables the filter to attenuate spurious signals and reject harmonics for broad band of frequency.

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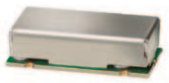


CASE STYLE: HZ1198
PRICE: $29.95 ea. QTY (1-9)

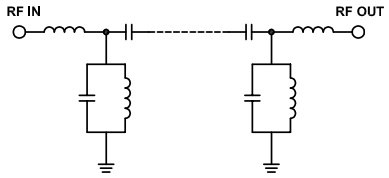
Features

- Excellent VSWR, 1.3:1 typical in passband
- Flat group delay over passband
- High rejection, 55 dB typical
- Sharp insertion loss roll-off
- Shielded case
- Aqueous washable

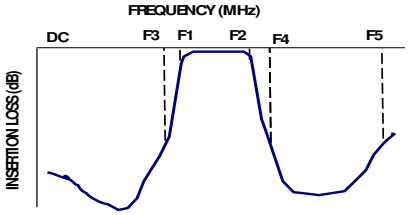
Applications

- Harmonic rejection
- Radio communications
- ILS / Localiser
- Transmitters / receivers

Functional Schematic



Typical Frequency Response



+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

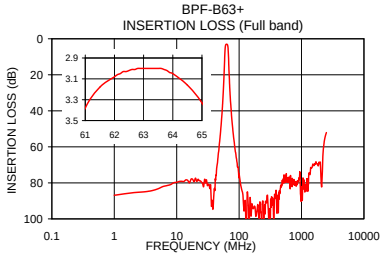
Electrical Specifications at 25°C

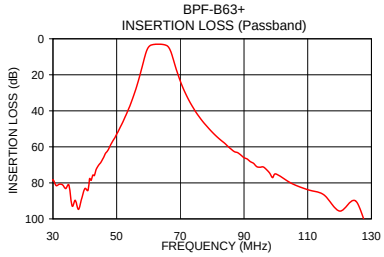
Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center Frequency	—	—	—	63	—	MHz
	Insertion Loss	F1-F2	61-65	—	3.6	5	dB
	VSWR	F1-F2	61-65	—	1.3	1.7	:1
Stop Band, Lower	Insertion Loss	DC-F3	DC-55	20	31	—	dB
	VSWR	DC-F3	DC-55	—	36	—	:1
Stop Band, Upper	Insertion Loss	F4-F5	72-2800	20	31	—	dB
	VSWR	F4-F5	72-2800	—	17	—	:1

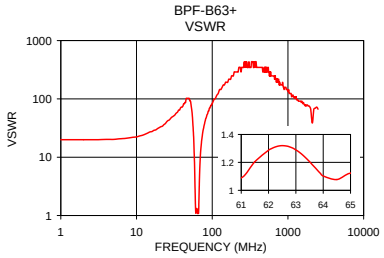
Maximum Ratings	
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.11W max.

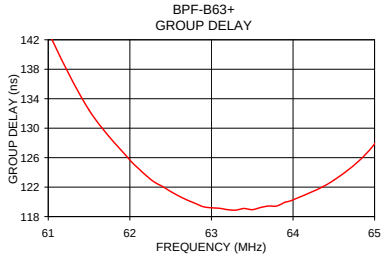
Permanent damage may occur if any of these limits are exceeded.

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (nsec)
1.0	86.87	19.98	61.0	143.12
51.0	49.57	91.43	61.5	132.47
55.0	33.26	44.55	62.8	119.80
58.0	15.57	10.02	62.0	125.69
59.0	8.90	4.00	62.2	123.57
61.0	3.38	1.09	62.4	122.09
62.0	3.08	1.29	62.5	121.41
63.0	3.00	1.29	62.6	120.80
64.0	3.05	1.10	62.8	119.80
65.0	3.33	1.12	63.0	119.19
67.0	7.08	2.28	63.2	118.94
68.0	12.70	4.95	63.4	119.10
70.0	23.55	11.46	63.5	118.94
72.0	31.75	17.75	63.6	119.23
78.0	47.94	34.75	63.7	119.43
100.0	75.04	82.73	63.8	119.43
500.0	80.34	347.44	63.9	119.94
1000.0	88.82	133.63	64.0	120.27
2000.0	68.52	66.82	64.5	122.94
2800.0	45.50	57.91	65.0	127.87







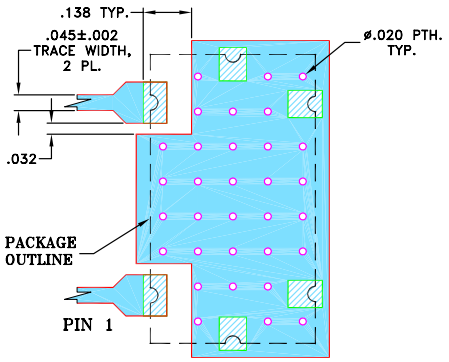


For detailed performance specs & shopping online see web site

Pad Connections

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

Demo Board MCL P/N: TB-400
Suggested PCB Layout (PL-247)

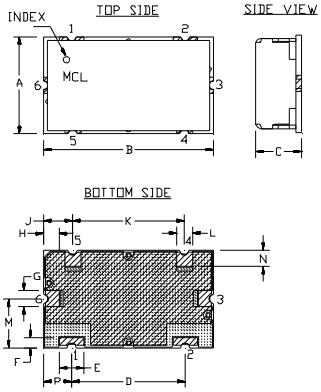


NOTES:
1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS .025"±.002". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

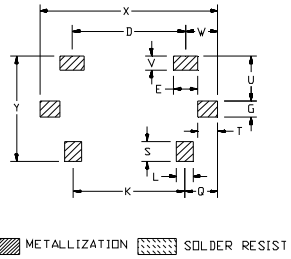
DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

Outline Drawing



PCB Land Pattern



METALLIZATION SOLDER RESIST

Suggested Layout,
Tolerance to be within ±.002

Outline Dimensions (inch / mm)

A	B	C	D	E	F	G	H	J	K	L	M
.472	.826	.220	.551	.118	.047	.078	.076	.142	.543	.078	.236
11.99	20.98	5.59	14.00	3.00	1.19	1.98	1.93	3.61	13.79	1.98	5.99

N	P	Q	S	T	U	V	W	X	Y	
.079	.138	.162	.098	.096	.217	.067	.157	.866	.512	wt
2.01	3.51	4.11	2.49	2.44	5.51	1.70	3.99	22.00	13.00	grams 6.0