



LUMPED LC SURFACE MOUNT

Bandpass Filter

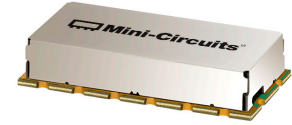
BPF-BV880+

50Ω

805 to 955 MHz

KEY FEATURES

- Low Insertion Loss, 2.5 dB Typ.
- High Rejection, 55 dB Typ.
- Wide Stopband Rejection, Up to 4.5 GHz with 30 dB Typ.
- Miniature Shielded Package



Generic photo used for illustration purposes only

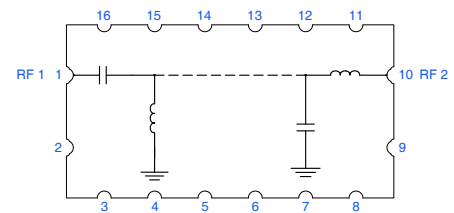
APPLICATIONS

- Aerospace
- Defense & Government

PRODUCT OVERVIEW

Mini-Circuits' Model BPF-BV880+ is a Lumped LC filter that offer a good insertion loss and high rejection. This bandpass filter covers from 805 to 955 MHz. This filter has high Q capacitors and inductors to achieve a low insertion loss. It has repeatable performance across production lots.

FUNCTIONAL DIAGRAM



ELECTRICAL SPECIFICATIONS^{1,2,3} AT +25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Units
Passband	Center Frequency	Fc	—	880	—	MHz
	Insertion Loss	F1-F2	—	2.5	3.5	dB
	Return Loss	F1-F2	805 - 955	12	16	dB
Stopband, Lower	Rejection	DC-F3	DC - 650	48	55	dB
		F3-F4	650 - 730	20	30	dB
Stopband, Upper	Rejection	F5-F6	1020 - 1150	20	30	dB
		F6-F7	1150 - 1600	48	55	dB
		F7-F8	1600 - 4500	—	30	—

1. Tested in Evaluation Board P/N TB-BPF-BV880+.

2. This filter is bi-directional RF1 and RF2 ports may be interchanged, see S-Parameters for actual performance.

3. This component should not be used as a DC-block. In applications where DC voltage and/or current is present at either the input or output ports, external DC blocking capacitors are required.

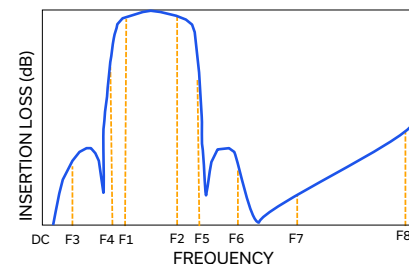
ABSOLUTE MAXIMUM RATINGS⁴

Parameter	Ratings
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C
Input Power ⁵	3 W at +25°C

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

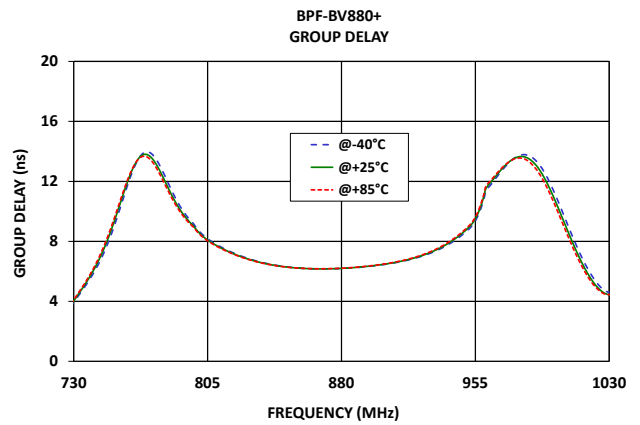
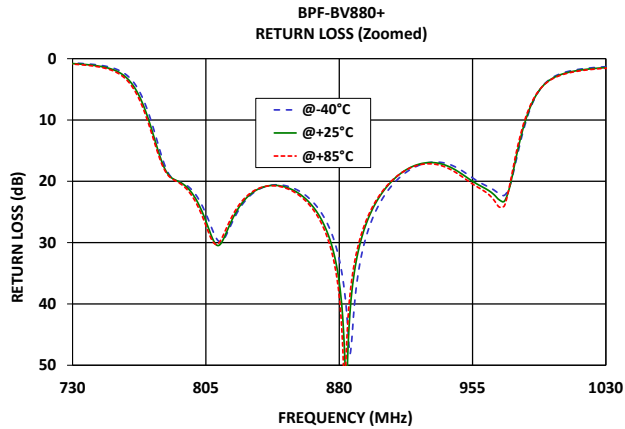
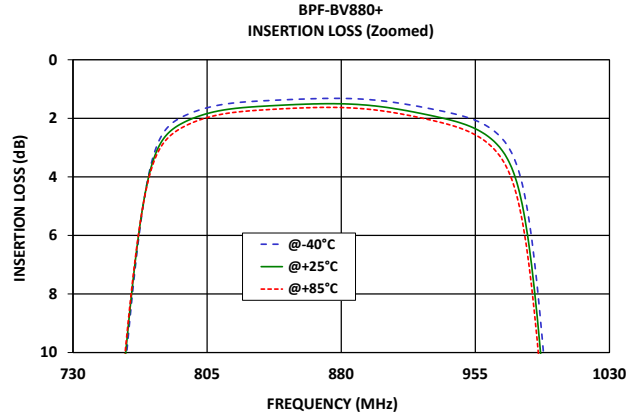
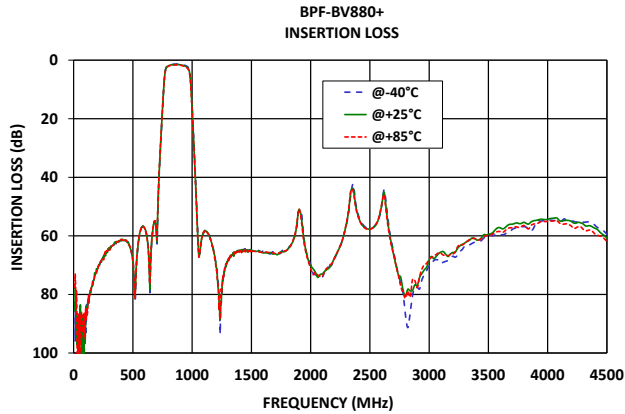
5. Power rating applies only to signals within the passband. Power rating above +25°C operating temperature decreases linearly to 1 W at +85°C.

TYPICAL FREQUENCY RESPONSE AT +25°C





TYPICAL PERFORMANCE GRAPHS





FUNCTIONAL DIAGRAM

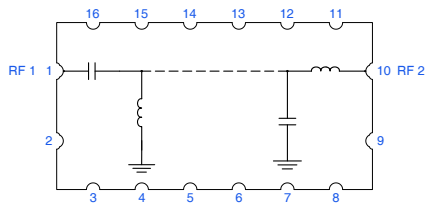
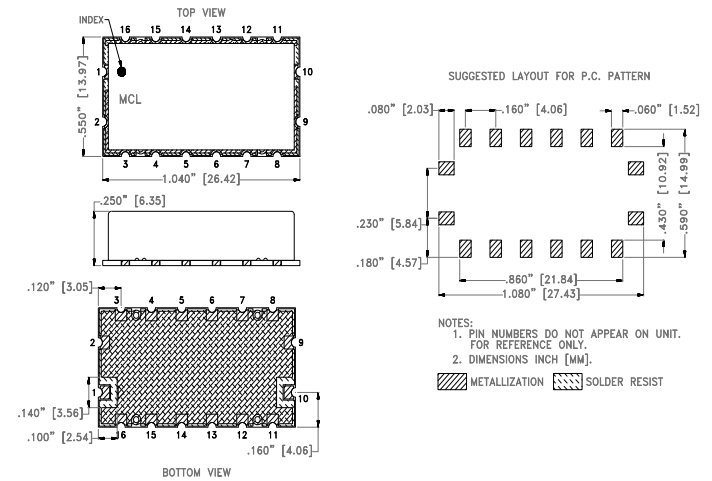


Figure 1. BPF-BV880+ Functional Diagram

PAD DESCRIPTION

Function	Pad Number	Description
RF1	1	Connects to RF Input Port
RF2	10	Connects to RF Output Port
GROUND	2-9,11-16	Connects to Ground on PCB, (See drawing PL-867)

CASE STYLE DRAWING

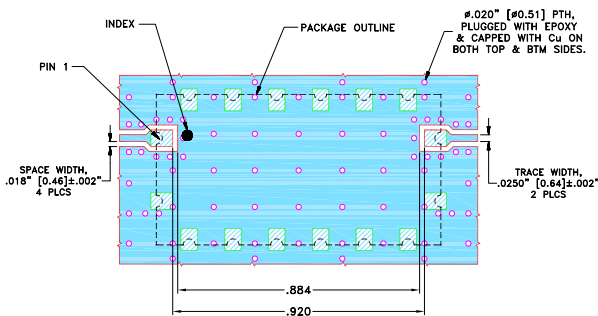


Unit Weight: 2.5gram

Dimensions are in inches [mm]. Tolerances: 2Pl. ± .03; 3Pl. ± .015

SUGGESTED PCB LAYOUT

SUGGESTED MOUNTING CONFIGURATION FOR KV1974-1 CASE STYLE



NOTES:

- TRACE WIDTH ARE SHOWN FOR ROGERS (CLTE-MW); WITH DIELECTRIC THICKNESS .010"±.001" COPPER: 1/2 Oz EACH SIDE. FOR OTHER MATERIAL TRACE WIDTH MAY NEED TO BE MODIFIED.
- 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

Figure 2. Suggested PCB Layout

PRODUCT MARKING*: BPF-BV880

*Marking may contain other features or characters for internal lot control.



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Bandpass Filter

BPF-BV880+

Mini-Circuits

50Ω

805 to 955 MHz

ADDITIONAL DETAILED INFORMATION IS AVAILABLE ON OUR DASHBOARD.

[CLICK HERE](#)

Performance Data and Graphs	Data
	Graphs
	S-Parameter (S2P Files) Data Set (.zip file) De-embedded to device pads
Case Style	KV1974-1 Lead Finish: Gold over Nickel Plate
RoHS/REACH Status	Compliant
Tape and Reel	F005
Suggested Layout for PCB Design	PL-867
Evaluation Board	TB-BPF-BV880+
	Gerber File
Environmental Rating	ENV02T1
MSL Level	MSL1

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-Circuits' 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/terms/viewterm.html

