LUMPED LC SURFACE MOUNT

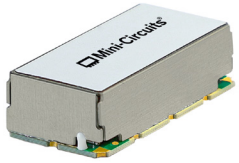
Band Pass Filter

BPF-AM585+

50Ω 420 to 750 MHz

THE BIG DEAL

- Low Insertion Loss, 0.4 dB Typ.
- High Rejection, 40 dB Typ.
- Wide Stopband Rejection, Up to 2 GHz

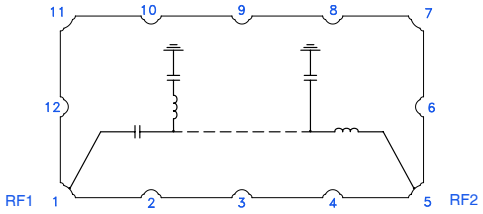


Generic photo used for illustration purposes only

APPLICATIONS

- Aerospace
- Test and Measurements
- UHF Radio

FUNCTIONAL DIAGRAM



PRODUCT OVERVIEW

Mini-Circuits' BPF-AM585+ is a Lumped LC filter that offer a good insertion loss and good rejection. This bandpass filter covers from 420 to 750 MHz. This filter has high Q capacitors and inductors to achieve a low insertion loss. It has repeatable performance across production lots.

ELECTRICAL SPECIFICATIONS[1,2] AT +25°C

Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Units
Passband	Center Frequency	—	—	—	585	—	MHz
	Insertion Loss	F1-F2	420 - 750	—	0.4	1.0	dB
	Return Loss	F1-F2	420 - 750	12	17	—	dB
Stopband, Lower	Rejection	DC-F3	DC - 240	35	40	—	dB
		F3-F4	240 - 270	20	30	—	
Stopband, Upper	Rejection	F5-F6	1000 - 1250	25	36	—	dB
		F6-F7	1250 - 2000	40	48	—	

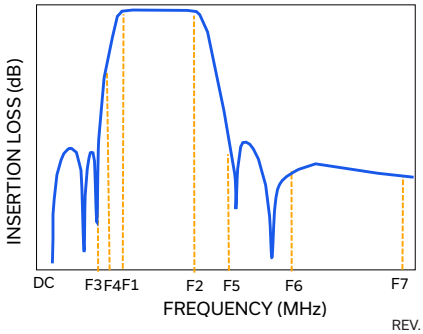
1. Tested in Evaluation Board P/N TB-BPF-AM585+.
2. This component should not be used as a DC-block. In applications where DC voltage and/or current is present at either the input or output ports, external DC blocking capacitors are required.

ABSOLUTE MAXIMUM RATINGS[3]

Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C
Input Power[4]	15 W at +25°C

3. Permanent damage may occur if any of these limits are exceeded.
4. Power rating applies only to signals within the passband. Power rating above +25°C operating temperature decreases linearly to 5 W at +85°C.

TYPICAL FREQUENCY RESPONSE



REV. OR
ECO-027878
EDU5236
BPF-AM585+
URJ
251127

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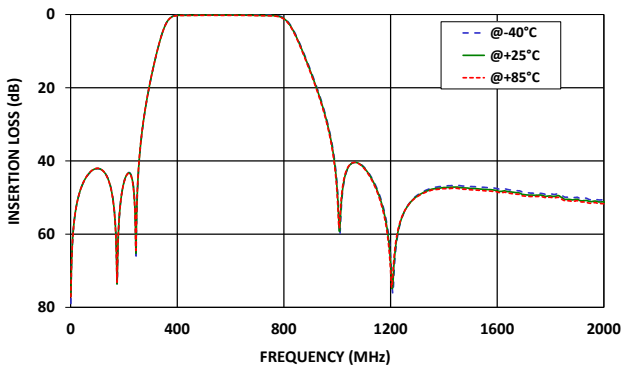
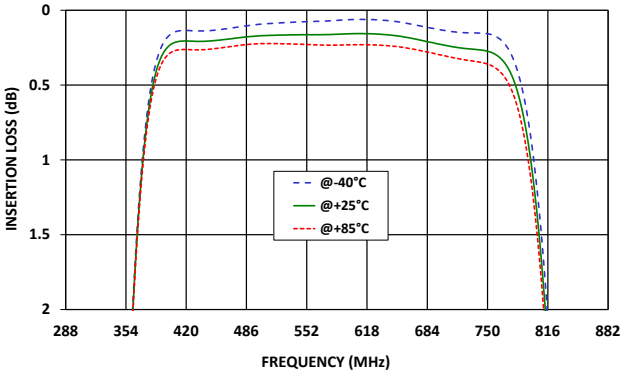
50Ω 420 to 750 MHz

TYPICAL PERFORMANCE GRAPHS

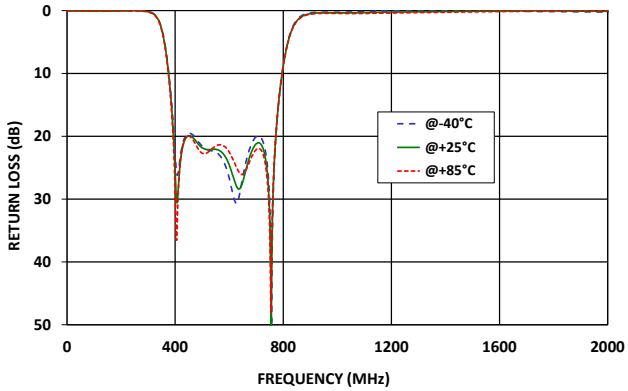
BPF-AM585+
INSERTION LOSS



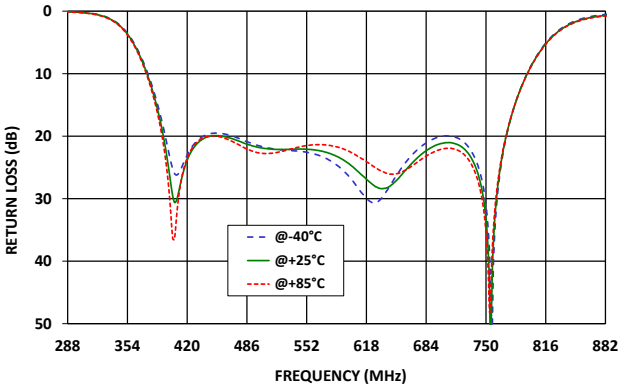
BPF-AM585+
INSERTION LOSS (Zoomed)



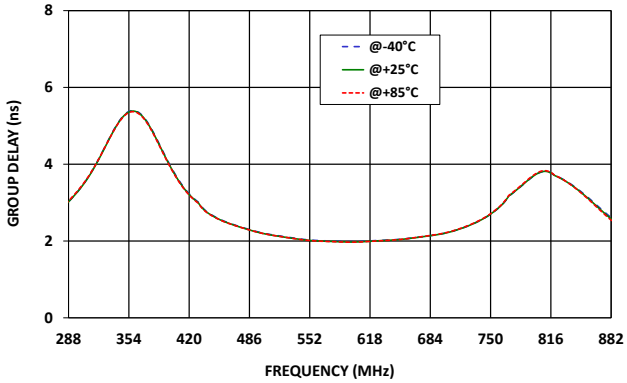
BPF-AM585+
RETURN LOSS



BPF-AM585+
RETURN LOSS (Zoomed)



BPF-AM585+
GROUP DELAY



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FUNCTIONAL DIAGRAM

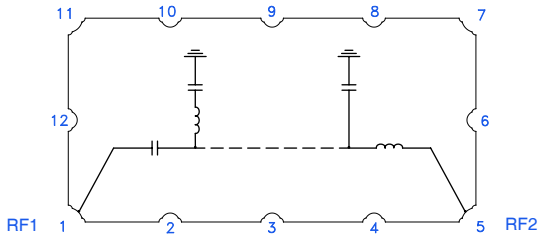


Figure 1. BPF-AM585+ Functional Diagram

PAD DESCRIPTION

Function	Pad Number	Description
RF1	1	Connects to RF Input Port
RF2	5	Connects to RF Output Port
GROUND	2-4, 6-12	Connects to Ground on PCB, (See drawing PL-842)

SUGGESTED PCB LAYOUT

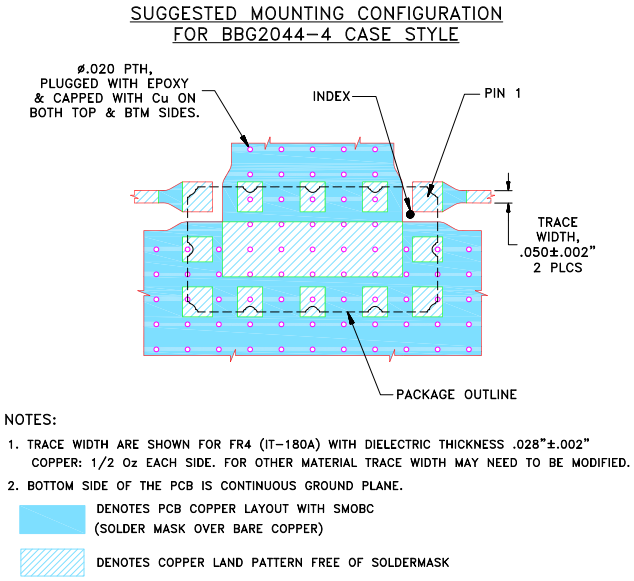
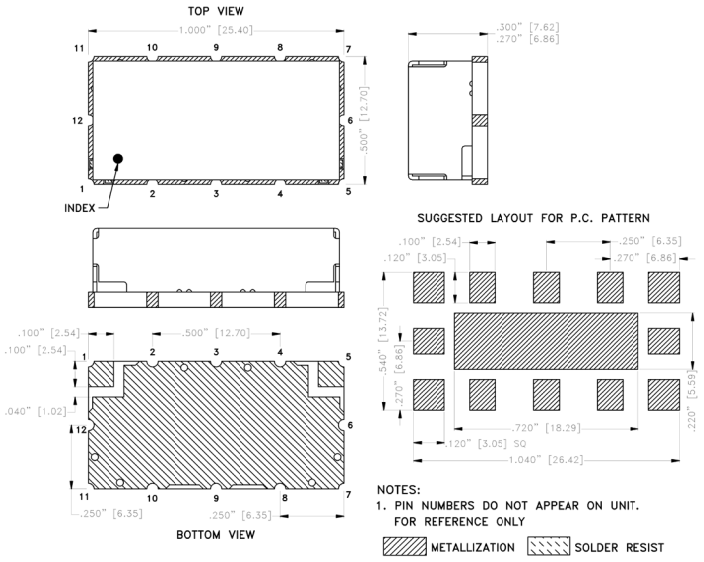


Figure 2. Suggested PCB Layout

CASE STYLE DRAWING



Weight: 5 gram
Dimensions are in inches (mm). Tolerances: 2Pl. ± .03; 3Pl. ± .015

PRODUCT MARKING*: BPF-AM585

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

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ADDITIONAL DETAILED INFORMATION IS AVAILABLE ON OUR DASHBOARD CLICK HERE

Performance Data & Graphs	Data Graphs S-Parameter (S2P Files) Data Set (.zip file) De-embedded to device pads
Case Style	BBG2044-4 Lead Finish: Gold over Nickel Plate
RoHS/REACH Status	Compliant
Tape and Reel	F023
Suggested Layout for PCB Design	PL-842
Evaluation Board	TB-BPF-AM585+ 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