CERAMIC RESONATOR SURFACE MOUNT

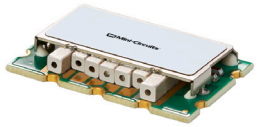
Band Pass Filter

CBP2-1060+

50Ω 1030 to 1090 MHz

THE BIG DEAL

- Good Insertion Loss, 1.9 dB Typ.
- Excellent Rejection, 62 dB Typ.
- Good Return Loss, 14 dB Typ.
- Miniature Shielded Package

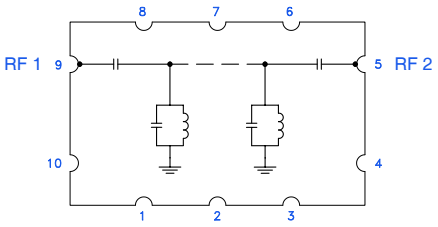


Generic photo used for illustration purposes only

APPLICATIONS

- Aerospace
- Defense and Government

FUNCTIONAL DIAGRAM



PRODUCT OVERVIEW

All our coaxial-ceramic resonator filters are built with rugged construction, qualified to withstand multiple demanding reflow cycles. Excellent repeatability across units is achieved through precise tunning and process control.

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

Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Units
Passband	Center Frequency	—	—	—	1060	—	MHz
	Insertion Loss	F1-F2	1030 - 1090	—	1.9	2.4	dB
	Return Loss	F1-F2	1030 - 1090	10	14	—	dB
Stopband, Lower	Rejection	DC-F3	DC - 700	50	62	—	dB
		F3-F4	700 - 910	20	30	—	
Stopband, Upper	Rejection	F5-F6	1230 - 1360	20	30	—	dB
		F6-F7	1360 - 2000	45	55	—	
		F7-F8	2000 - 4800	—	40	—	

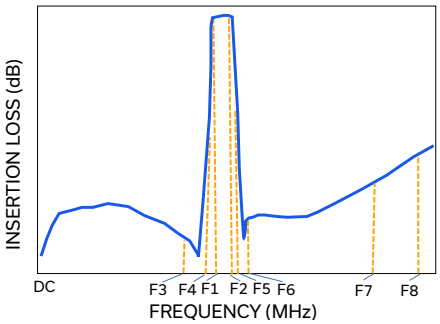
1. Tested in Evaluation Board P/N TB-CBP2-1060+.
2. This component should not be used as a DC-block. In applications where DC voltage and/or current is present at either the input or output ports, external DC blocking capacitors are required.

ABSOLUTE MAXIMUM RATINGS[3]

Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C
Input Power[4]	6 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 1 W at +85°C.

TYPICAL FREQUENCY RESPONSE



REV. OR
ECO-029778
EDU5425
CBP2-1060+
URJ
260529

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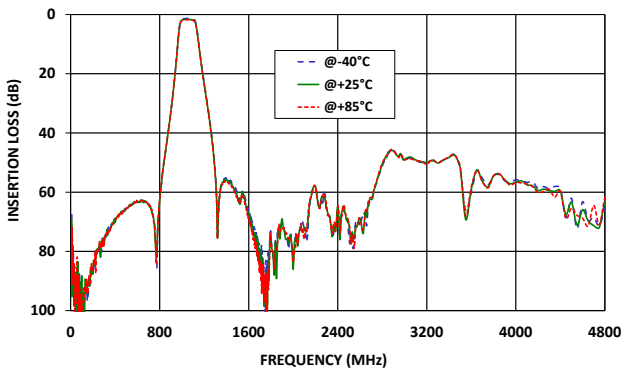
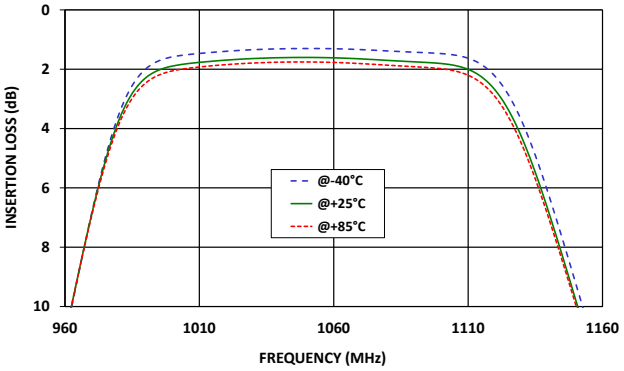
TYPICAL PERFORMANCE GRAPHS

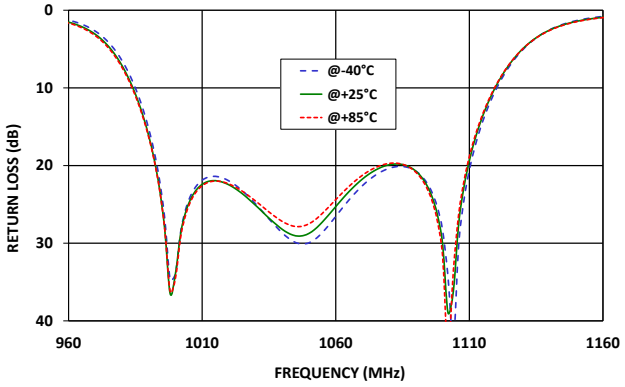
CBP2-1060+
INSERTION LOSS



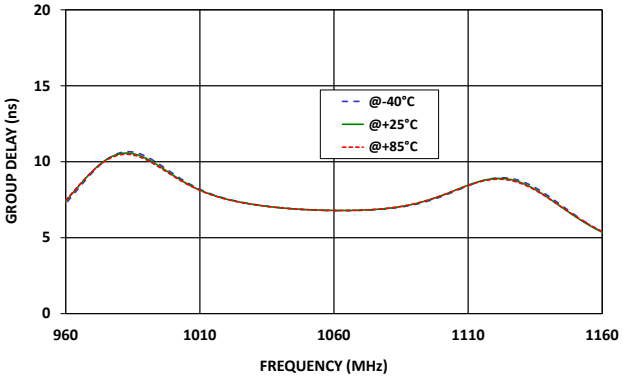
CBP2-1060+
INSERTION LOSS (Zoomed)



CBP2-1060+
RETURN LOSS (Zoomed)



CBP2-1060+
GROUP DELAY



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FUNCTIONAL DIAGRAM

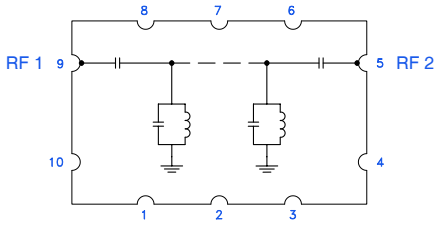


Figure 1. CBP2-1060+ Functional Diagram

PAD DESCRIPTION

Function	Pad Number	Description
RF1	9	Connects to RF Input Port
RF2	5	Connects to RF Output Port
GROUND	1-4, 6-8,10	Connects to Ground on PCB, (See drawing PL-863)

SUGGESTED PCB LAYOUT

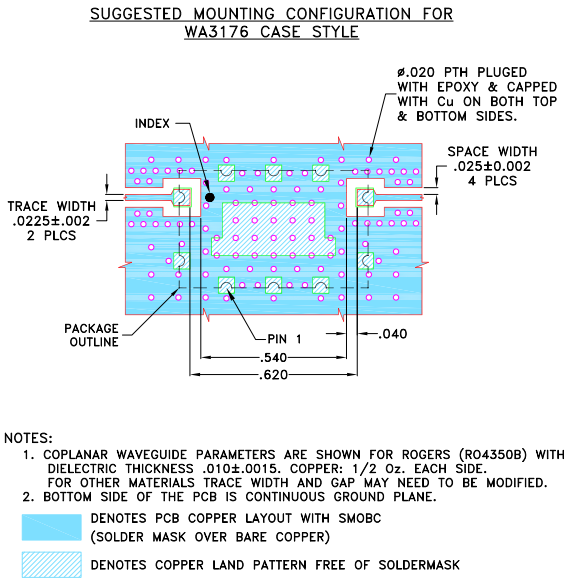
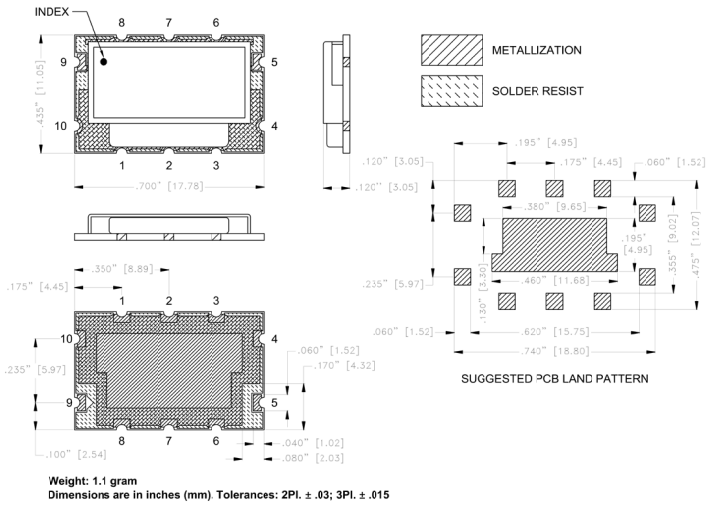


Figure 2. Suggested PCB Layout

CASE STYLE DRAWING



PRODUCT MARKING*: CBP2-1060

*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	WA3176 Lead Finish: Gold over Nickel Plate
RoHS/REACH Status	Compliant
Tape and Reel	F122
Suggested Layout for PCB Design	PL-863
Evaluation Board	TB-CBP2-1060+ Gerber File
Environmental Rating	ENV54
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