# **Bandpass Filter**

#### 100 to 480 MHz $50\Omega$

#### **Maximum Ratings**

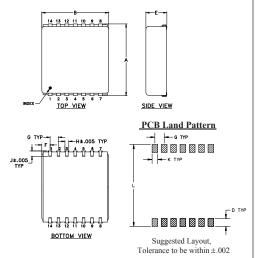
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W

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

#### **Pin Connections**

INPUT	2
OUTPUT	9
GROUND	1 3 4 5 6 7 8 10 11 12 13 14

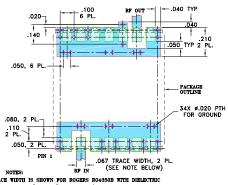
#### **Outline Drawing**



#### Outline Dimensions (inch)

A . <b>870</b> 22.09	. <b>800</b> 20.32	C 	D . <b>100</b> 2.54	<b>E</b> . <b>250</b> 6.35	F .100 2.54	
G .100 2.54	H . <b>047</b> 1 19	ე . <b>065</b> 1.65	.065		grams	

#### Demo Board MCL P/N: TB-442+ Suggested PCB Layout(PL-269)



- NOTES:

  RF IN (SEE NOTE BELOW)

  1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC
  THICKNESS. 0.90° ± .002°; COPPER: 1/2 0%. EACH SIDE.
  POR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
  2. BOYTOM SIDE OF THE FCB IS CONTINUOUS GROUND PLANE.
  - DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
    - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASE

#### **Features**

- · High stopband rejection
- Aqueous washable

JCBP-290+

CASE STYLE: BG291

#### +RoHS Compliant

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

### **Applications**

ATTENUATION (dB)

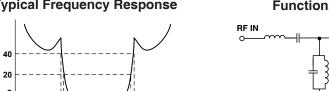
- · Harmonic rejection
- Transmitters/receivers
- Military communications

## Bandpass Filter Electrical Specifications (T<sub>AMB</sub>= 25°C)

	Ame				
CENTER FREQ.	PASSBAND (MHz)	D STOPBANDS (MHz)		vsw	R (:1)
(MHz)	(Loss < 2dB)	Loss > 20dB	Loss > 40dB	Passband	Stopband
	F1 - F2	F3 F4	F5 F6	Max.	Typ.
290	100 - 480	65 630	50 760 - 2000	2.2	20

#### **Typical Frequency Response**

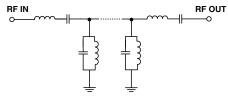
F5 F3 F1



F2 F4 F6

FREQUENCY (MHz)

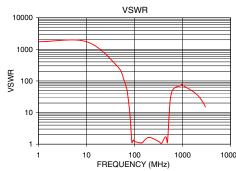
#### **Functional Schematic**



#### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
5.0	100.66	1737.18
50.0	54.53	193.02
65.0	32.31	75.53
70.0	24.77	51.10
78.0	11.82	14.87
82.0	5.50	5.03
85.0	2.40	2.08
88.0	1.27	1.10
100.0	0.72	1.22
290.0	0.39	1.31
480.0	0.85	1.11
498.0	1.71	2.00
510.0	3.51	3.92
526.0	7.30	9.33
554.0	14.72	25.56
630.0	31.11	54.29
760.0	54.49	64.35
1500.0	73.77	51.10
2000.0	54.74	36.97





- 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-Circuit's 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/WCLStore/terms.jsp

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