

Bandpass Filter

JCBP-290+

50Ω 100 to 480 MHz

Maximum Ratings

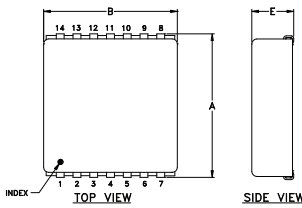
| | |
|-----------------------|----------------|
| Operating Temperature | -40°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| RF Power Input | 0.5W |

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

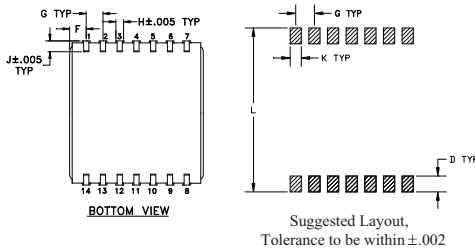
Pin Connections

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

Outline Drawing



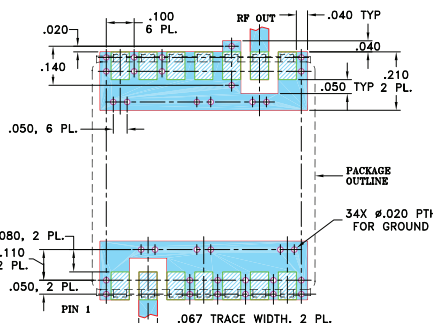
PCB Land Pattern



Outline Dimensions (inch/mm)

| | | | | | |
|-------|-------|------|------|-------|-------|
| A | B | C | D | E | F |
| .870 | .800 | -- | .100 | .250 | .100 |
| 22.09 | 20.32 | -- | 2.54 | 6.35 | 2.54 |
| G | H | J | K | L | wt. |
| .100 | .047 | .065 | .065 | .890 | grams |
| 2.54 | 1.19 | 1.65 | 1.65 | 22.60 | 4.0 |

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



- NOTES:
 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .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 SOLDER MASK

Features

- High stopband rejection
- Aqueous washable

Applications

- Harmonic rejection
- Transmitters/receivers
- Military communications



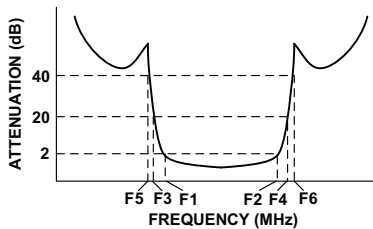
CASE STYLE: BG291
 PRICE: \$17.95 ea. QTY (1-9)

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

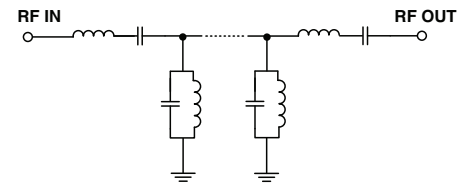
Bandpass Filter Electrical Specifications (T_{AMB} = 25°C)

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

Typical Frequency Response



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 |

