

Bandpass Filter

50Ω 26 to 60 MHz

Maximum Ratings

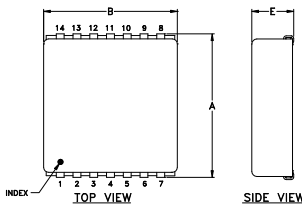
| | |
|-----------------------|----------------|
| Operating Temperature | -40°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| RF Power Input | 0.5W |

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

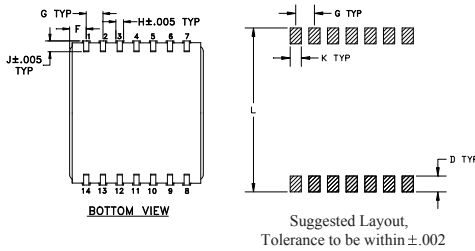
Pin Connections

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

Outline Drawing



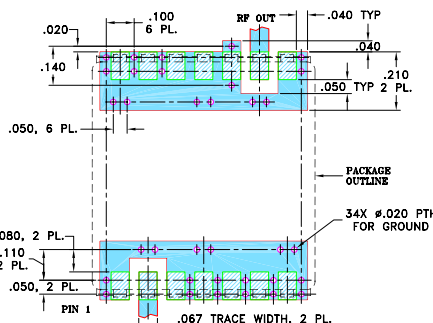
PCB Land Pattern



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:
- 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.
 - 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

- Low insertion loss, 0.3 typ @ passband
- Good VSWR, 1.2:1 typ @ passband
- High stopband rejection
- Aqueous washable

Applications

- Harmonic rejection
- Transmitters/receivers
- Military communications

JCBP-43+



CASE STYLE: BG291

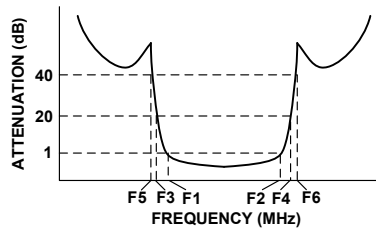
+RoHS Compliant

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

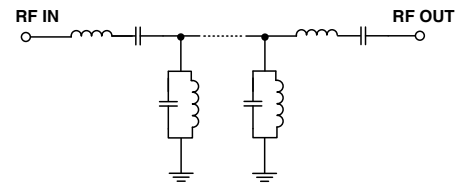
Bandpass Filter Electrical Specifications (T_{AMB} = 25°C)

| CENTER FREQ. (MHz) | PASSBAND (MHz) (Loss < 1dB) F1 - F2 | STOPBANDS (MHz) | | VSWR (:1) | |
|--------------------|---|----------------------|----------------------|------------------|------------------|
| | | Loss > 20dB F3 F4 | Loss > 40dB F5 F6 | Passband Max. | Stopband Typ. |
| 43 | 26 - 60 | 12.5 130 | 10 160 - 1500 | 1.6 | 20 |

Typical Frequency Response

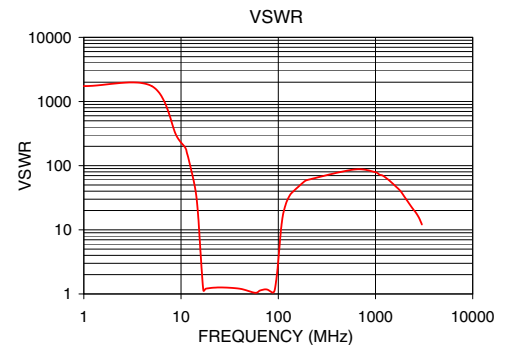
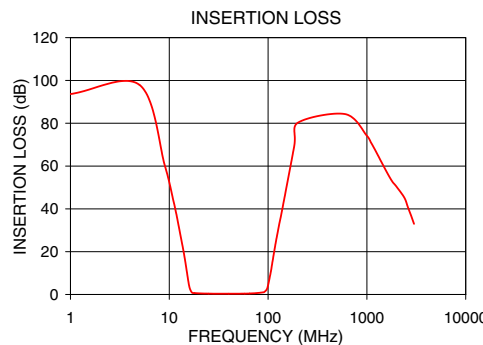


Functional Schematic



Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) |
|-----------------|---------------------|-----------|
| 5.0 | 97.92 | 1737.18 |
| 10.0 | 51.90 | 347.44 |
| 12.5 | 31.94 | 91.43 |
| 14.5 | 15.42 | 28.96 |
| 15.5 | 6.89 | 7.87 |
| 16.0 | 3.42 | 3.66 |
| 16.5 | 1.52 | 1.79 |
| 26.0 | 0.35 | 1.18 |
| 43.0 | 0.32 | 1.12 |
| 60.0 | 0.42 | 1.06 |
| 94.0 | 1.54 | 1.36 |
| 100.0 | 4.17 | 3.33 |
| 106.0 | 10.09 | 9.23 |
| 118.0 | 22.73 | 23.81 |
| 130.0 | 33.05 | 33.42 |
| 160.0 | 53.26 | 45.72 |
| 800.0 | 85.80 | 86.86 |
| 1500.0 | 59.08 | 54.29 |



Notes

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
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