

Surface Mount Bandpass Filter

BPHI-332+

50Ω 329 to 335 MHz



CASE STYLE: HQ1157

Features

- Very sharp rejection
- Low passband IL
- Shielded case

Applications

- Aviation/Aeronautical
- Radio communications
- Defense systems

Electrical Specifications at 25°C

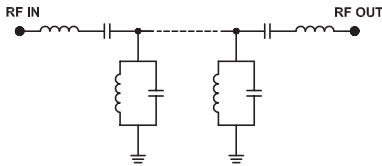
| Parameter | F# | Frequency (MHz) | Min. | Typ. | Max. | Unit | |
|------------------|------------------|-----------------|----------|------|------|------|----|
| Pass Band | Center Frequency | — | — | 332 | — | MHz | |
| | Insertion Loss | F1-F2 | 329-335 | — | 4.5 | 5.0 | dB |
| | VSWR | F1-F2 | 329-335 | — | 1.5 | 2.0 | :1 |
| Stop Band, Lower | Insertion Loss | DC-F3 | DC-300 | 40 | 50 | — | dB |
| | VSWR | F3-F4 | 300-313 | 20 | 30 | — | dB |
| | | DC-F3 | DC-313 | — | 20 | — | :1 |
| Stop Band, Upper | Insertion Loss | F5-F6 | 343-370 | 20 | 25 | — | dB |
| | VSWR | F6-F7 | 370-2600 | 40 | 50 | — | dB |
| | | F5-F7 | 343-2600 | — | 20 | — | :1 |

Maximum Ratings

| | |
|-----------------------|----------------|
| Operating Temperature | -40°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| RF Power Input | 1.5 W |

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

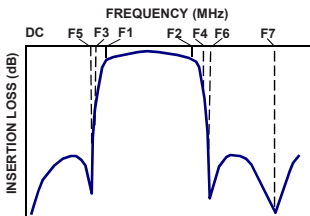
Functional Schematic



Typical Performance Data at 25°C

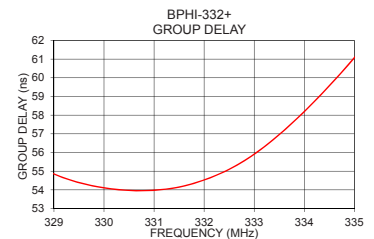
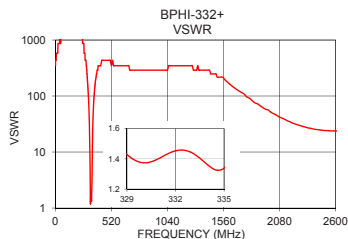
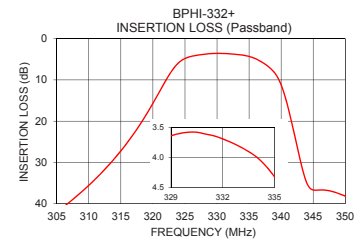
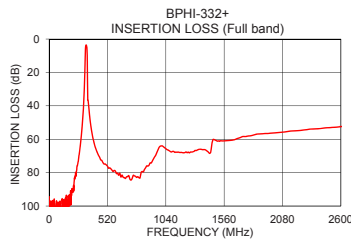
| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) | Frequency (MHz) | Group Delay (nsec) |
|-----------------|---------------------|-----------|-----------------|--------------------|
| 1.0 | 94.42 | 347.44 | 329.0 | 54.85 |
| 100.0 | 110.76 | 1737.18 | 329.5 | 54.39 |
| 300.0 | 47.38 | 157.93 | 330.0 | 54.11 |
| 313.0 | 30.84 | 44.55 | 330.5 | 53.97 |
| 318.0 | 20.79 | 17.22 | 331.0 | 53.98 |
| 322.0 | 10.17 | 4.10 | 331.5 | 54.15 |
| 325.0 | 4.82 | 1.17 | 332.0 | 54.53 |
| 329.0 | 3.64 | 1.43 | 332.5 | 55.10 |
| 332.0 | 3.69 | 1.45 | 333.0 | 55.91 |
| 335.0 | 4.32 | 1.34 | 333.5 | 56.96 |
| 338.0 | 6.77 | 2.40 | 334.0 | 58.19 |
| 340.0 | 11.19 | 3.27 | 334.5 | 59.57 |
| 341.5 | 19.33 | 6.58 | 335.0 | 61.07 |
| 342.0 | 22.68 | 8.31 | | |
| 343.0 | 29.53 | 12.18 | | |
| 343.5 | 32.62 | 14.26 | | |
| 370.0 | 51.01 | 173.72 | | |
| 500.0 | 74.83 | 434.30 | | |
| 1500.0 | 61.17 | 217.15 | | |
| 2600.0 | 52.47 | 23.81 | | |

Typical Frequency Response



+RoHS Compliant

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



Notes

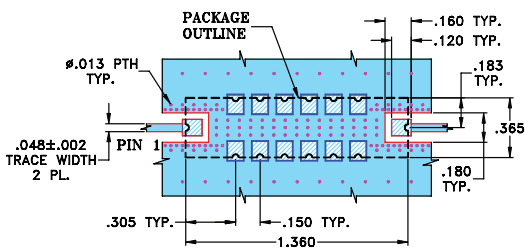
- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
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Pad Connections

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

Demo Board MCL P/N: TB-363+
Suggested PCB Layout (PL-227)

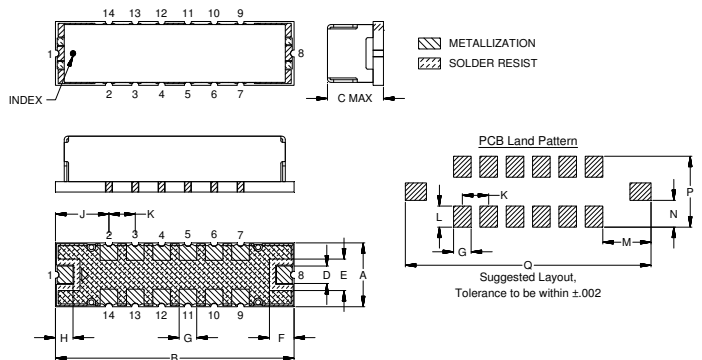


NOTE:

- TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS .025"±.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 SOLDERMASK

Outline Drawing



Outline Dimensions (inch / mm)

| A | B | C | D | E | F | G | H |
|------|-------|------|------|------|-------|-------|-------|
| .365 | 1.360 | .35 | .100 | .180 | .140 | .100 | .100 |
| 9.27 | 34.54 | 8.89 | 2.54 | 4.57 | 3.56 | 2.54 | 2.54 |
| J | K | L | M | N | P | Q | Wt. |
| .305 | .150 | .120 | .275 | .152 | .405 | 1.400 | grams |
| 7.75 | 3.81 | 3.05 | 6.99 | 3.86 | 10.29 | 35.56 | 4.0 |

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