

# Band Pass Filter

## BPF-EDU2053

### Surface Mount

#### Important Note

This model has been designed, built and tested in our engineering department. Performance data represents model capability. At present it is a non-catalog model. On request, we can supply a final specification sheet, part number and price/delivery information.



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HQ1157

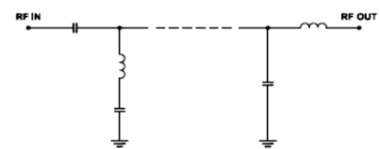
#### ELECTRICAL SPECIFICATIONS 50Ω @ +25°C

| Parameter                    | Min. | Typ. | Max. | Units |
|------------------------------|------|------|------|-------|
| Passband<br>(Loss < 2.5 dB ) | 350  |      | 900  | MHz   |
| Centre frequency             |      | 625  |      | MHz   |
| Low Band (Loss > 20 dB)      | DC   | 200  |      | MHz   |
| High Band (Loss > 20 dB)     |      | 1200 | 4000 | MHz   |
| Passband VSWR                |      | 1.6  |      | (:1)  |
| Stopband VSWR                |      | 20   |      | (:1)  |

#### Functional Schematic

#### MAXIMUM RATINGS

|                       |                |
|-----------------------|----------------|
| Operating Temperature | -40°C to 85°C  |
| Storage Temperature   | -55°C to 100°C |
| RF Power Input        | 1 W            |



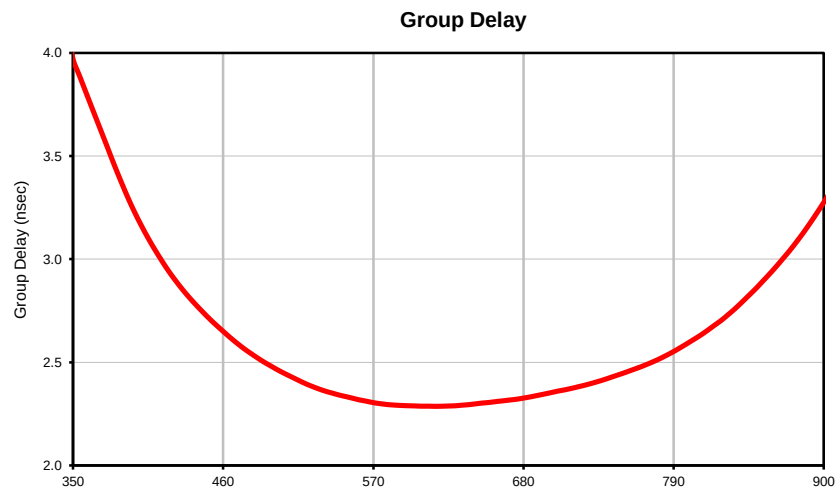
#### PIN CONNECTIONS

|        |          |
|--------|----------|
| Input  | 1        |
| Output | 8        |
| Ground | 2-7,9-14 |

## Typical Performance Data

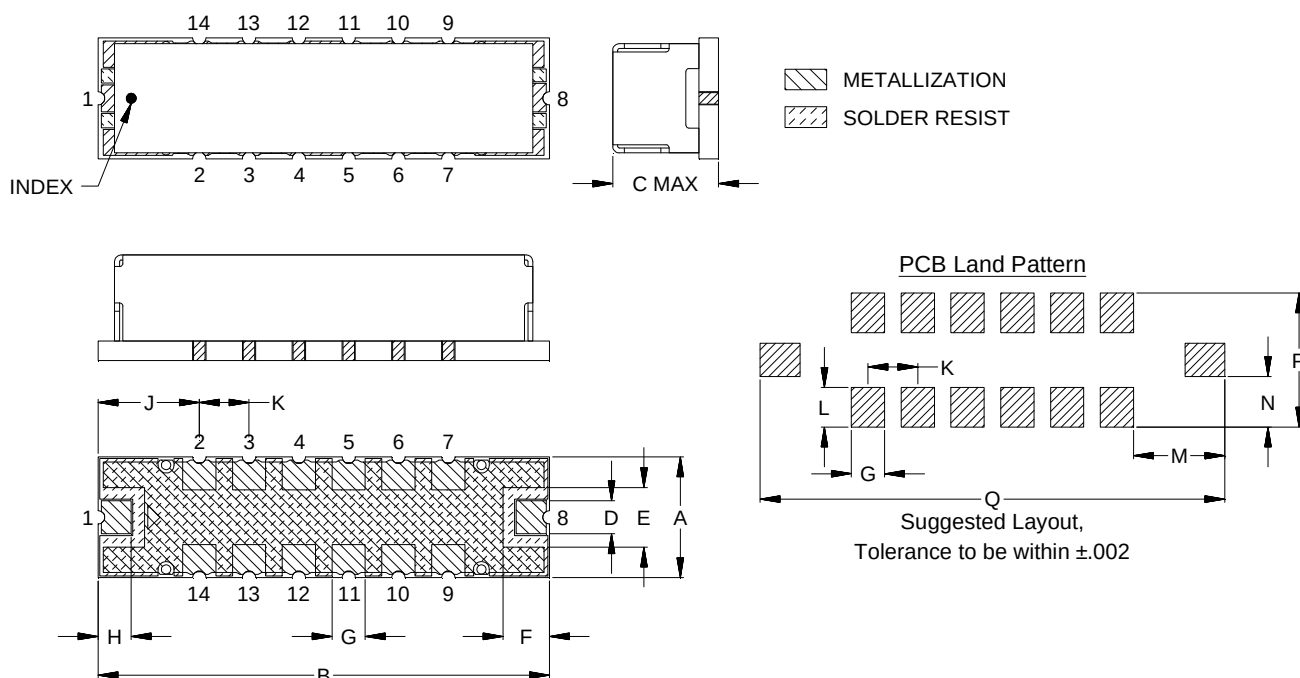
| FREQUENCY<br>(MHz) | INSERTION<br>LOSS<br>(dB) | RETURN<br>LOSS<br>(dB) | FREQUENCY<br>(MHz) | GROUP<br>DELAY<br>(nsec) |
|--------------------|---------------------------|------------------------|--------------------|--------------------------|
| 1.0                | 79.61                     | 0.05                   | 350                | 3.97                     |
| 10.0               | 59.57                     | 0.04                   | 375                | 3.54                     |
| 200.0              | 80.72                     | 0.21                   | 400                | 3.16                     |
| 232.0              | 29.30                     | 0.39                   | 425                | 2.90                     |
| 242.0              | 20.69                     | 0.55                   | 450                | 2.71                     |
| 266.0              | 3.67                      | 5.18                   | 475                | 2.57                     |
| 270.0              | 2.31                      | 8.48                   | 500                | 2.46                     |
| 350.0              | 0.64                      | 24.22                  | 525                | 2.38                     |
| 625.0              | 0.71                      | 21.23                  | 550                | 2.33                     |
| 900.0              | 1.29                      | 15.86                  | 575                | 2.30                     |
| 980.0              | 2.24                      | 9.77                   | 600                | 2.29                     |
| 1000.0             | 3.49                      | 6.10                   | 625                | 2.29                     |
| 1070.0             | 19.65                     | 0.80                   | 650                | 2.30                     |
| 1110.0             | 30.19                     | 0.62                   | 675                | 2.32                     |
| 1200.0             | 59.57                     | 0.52                   | 700                | 2.35                     |
| 1750.0             | 66.17                     | 0.39                   | 750                | 2.44                     |
| 2000.0             | 72.01                     | 0.35                   | 750                | 2.44                     |
| 2250.0             | 61.10                     | 0.38                   | 775                | 2.50                     |
| 2850.0             | 37.76                     | 1.31                   | 790                | 2.55                     |
| 3000.0             | 35.53                     | 1.93                   | 800                | 2.59                     |
| 3300.0             | 36.11                     | 1.92                   | 825                | 2.70                     |
| 3490.0             | 38.93                     | 1.28                   | 850                | 2.86                     |
| 3700.0             | 44.43                     | 0.80                   | 875                | 3.04                     |
| 4000.0             | 40.66                     | 0.50                   | 900                | 3.27                     |

## Typical Performance Curves



## Outline Dimensions

HQ1157



| CASE#  | A              | B                | C              | D              | E              | F              | G              | H              | J              | K              | L              | M              |
|--------|----------------|------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| HQ1157 | .365<br>(9.27) | 1.360<br>(34.54) | .350<br>(8.89) | .100<br>(2.54) | .180<br>(4.57) | .140<br>(3.56) | .100<br>(2.54) | .100<br>(2.54) | .305<br>(7.75) | .150<br>(3.81) | .120<br>(3.05) | .275<br>(6.99) |

| CASE#  | N              | P               | Q                | WT.GRAM |
|--------|----------------|-----------------|------------------|---------|
| HQ1157 | .152<br>(3.87) | .405<br>(10.29) | 1.400<br>(35.56) | 4.0     |

Dimensions are in inches (mm). Tolerances: 2Pl. ± .03; 3Pl. ± .015

### Notes:

- Case material: Nickel-Silver alloy.
- Base: Printed wiring laminate.
- Termination finish:  
For RoHS Case Styles: 3-5  $\mu$  inch (.08-.13 microns) Gold over 120-240  $\mu$  inch (3.05-6.10 microns) Nickel plate.  
For RoHS-5 Case Styles: Tin-Lead plate.

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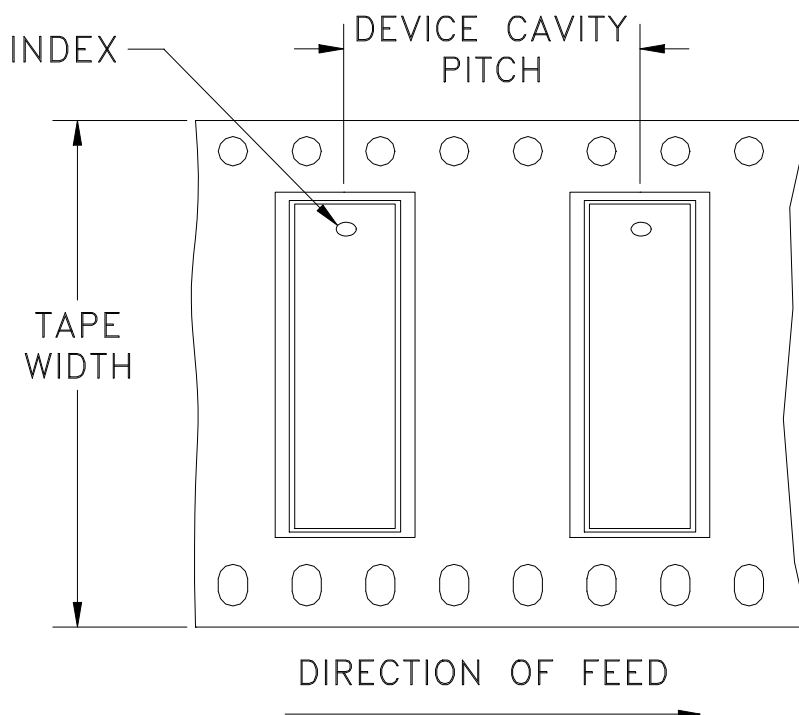


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RF/IF MICROWAVE COMPONENTS

# Tape & Reel Packaging TR-F83

## DEVICE ORIENTATION IN T&R



| Tape Width,<br>mm | Device Cavity<br>Pitch, mm | Reel Size,<br>inches | Devices per Reel |
|-------------------|----------------------------|----------------------|------------------|
| 56                | 16                         | 13                   | 100              |

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