

# Band Pass Filter

## BPF-EDU1953

### 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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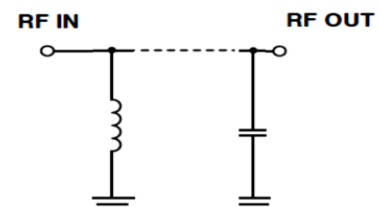
99-01-OPU518

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

| Parameter                     | Min. | Typ. | Max. | Units |
|-------------------------------|------|------|------|-------|
| Passband<br>(Loss - 6 dB Typ) | 101  |      | 107  | MHz   |
| Centre frequency              |      | 104  |      | MHz   |
| Low Band (Loss > 20 dB)       | DC   | 94   |      | MHz   |
| High Band (Loss > 20 dB)      |      | 114  | 2000 | MHz   |
| Passband VSWR                 |      | 1.9  |      | (: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        | 0.1 W          |



#### PIN CONNECTIONS

|        |                  |
|--------|------------------|
| Input  | 1                |
| Output | 6                |
| Ground | 2,3,4,5,7,8,9,10 |

## 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                | 82.92                     | 0.04                   | 101.0              | 102.33                   |
| 10.0               | 70.84                     | 0.04                   | 101.2              | 99.66                    |
| 20.0               | 64.56                     | 0.04                   | 101.4              | 97.28                    |
| 50.0               | 55.17                     | 0.06                   | 101.6              | 95.16                    |
| 65.0               | 51.27                     | 0.09                   | 101.8              | 93.27                    |
| 70.0               | 50.01                     | 0.10                   | 102.0              | 91.63                    |
| 88.0               | 49.69                     | 0.46                   | 102.2              | 90.16                    |
| 90.6               | 54.81                     | 0.71                   | 102.4              | 88.89                    |
| 94.0               | 51.13                     | 1.65                   | 102.6              | 87.78                    |
| 95.8               | 30.22                     | 3.30                   | 102.8              | 86.77                    |
| 96.8               | 20.48                     | 5.63                   | 103.0              | 85.94                    |
| 101.0              | 4.71                      | 15.00                  | 103.2              | 85.20                    |
| 104.0              | 4.12                      | 12.80                  | 103.4              | 84.58                    |
| 107.0              | 4.76                      | 21.13                  | 103.6              | 84.07                    |
| 111.4              | 19.93                     | 2.14                   | 103.8              | 83.68                    |
| 112.6              | 29.55                     | 1.31                   | 104.0              | 83.42                    |
| 114.0              | 42.13                     | 0.88                   | 104.4              | 83.24                    |
| 450.0              | 76.05                     | 0.06                   | 104.8              | 83.63                    |
| 700.0              | 55.17                     | 0.05                   | 105.0              | 84.09                    |
| 900.0              | 50.09                     | 0.02                   | 105.4              | 85.45                    |
| 1200.0             | 45.19                     | 0.02                   | 105.8              | 87.50                    |
| 1500.0             | 41.23                     | 0.04                   | 106.0              | 88.76                    |
| 1750.0             | 36.09                     | 0.09                   | 106.6              | 93.37                    |
| 2000.0             | 32.20                     | 0.16                   | 107.0              | 96.94                    |

## Typical Performance Curves

