

LTCC

Bandpass Filter

50Ω 2400 to 2500 MHz

Features

- High Rejection.
- Miniature size 0603
- Low cost
- Aqueous washable

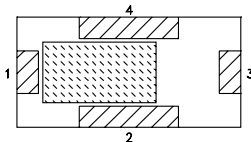
Applications

- ISM Band
- WLAN
- Bluetooth
- Zigbee

Block Diagram



Top View



Pad Connections

| | |
|--------|-----|
| Input | 1 |
| Output | 3 |
| Ground | 2,4 |

BPJC-252R+



Generic photo used for illustration purposes only

CASE STYLE: JC0603C-1

+RoHS Compliant

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



Available Tape and Reel at no extra cost

| Reel Size | Devices/Reel |
|-----------|-----------------------------------|
| 7" | 20, 50, 100, 200, 500, 1000, 3000 |

Electrical Specifications at 25°C

| Parameter | F# | Frequency (MHz) | Min. | Typ. | Max. | Unit |
|------------------|------------------|-----------------|------|------|------|------|
| Pass Band | Center Frequency | — | — | 2450 | — | MHz |
| | Insertion Loss | 2400 – 2500 | — | 2.3 | 3.2 | dB |
| | VSWR | 2400 – 2500 | — | 1.4 | 2 | :1 |
| Stop Band, Lower | Rejection | 695 – 880 | 25 | 46 | — | dB |
| | | 1910 | 20 | 26 | — | dB |
| Stop Band, Upper | Rejection | 3200 | 35 | 38 | — | dB |
| | | 4800 - 5000 | 20 | 29 | — | dB |
| | | 7200 - 7500 | 20 | 43 | — | dB |

1. Tested on Evaluation Board TB-1023+.

Maximum Ratings

| | |
|-----------------------|----------------|
| Operating Temperature | -40°C to +85°C |
| Storage Temperature* | -40°C to +85°C |
| RF Power Input** | 0.5W at 25°C |

* Refer to product storage temperature after installation

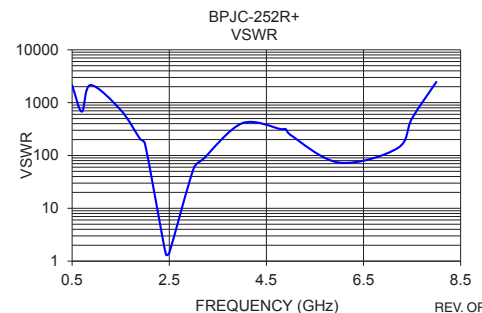
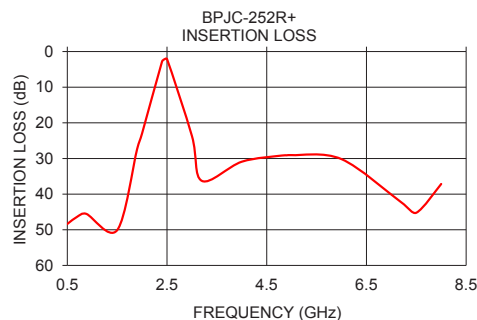
Suggestion for T&R unused product storage condition:

+5 ~ +35 °C, Humidity 45~75%RH, 12 month Max

**Derate linearly to 0.25W at 85°C.

Typical Performance Data at 25°C

| Frequency (GHz) | Insertion Loss (dB) | VSWR (:1) |
|-----------------|---------------------|-----------|
| 0.50 | 48.37 | 2136.92 |
| 0.70 | 46.33 | 677.41 |
| 0.88 | 45.53 | 2146.38 |
| 1.50 | 50.11 | 725.50 |
| 1.90 | 27.37 | 204.87 |
| 2.00 | 22.95 | 167.73 |
| 2.40 | 2.81 | 1.80 |
| 2.44 | 2.23 | 1.30 |
| 2.50 | 2.11 | 1.42 |
| 3.00 | 23.70 | 55.93 |
| 3.20 | 36.29 | 85.70 |
| 4.00 | 30.90 | 407.47 |
| 4.80 | 29.18 | 315.18 |
| 4.90 | 29.11 | 315.66 |
| 5.00 | 29.05 | 243.46 |
| 6.00 | 30.18 | 73.23 |
| 7.20 | 42.31 | 137.13 |
| 7.50 | 45.22 | 505.84 |
| 8.00 | 37.15 | 2458.98 |



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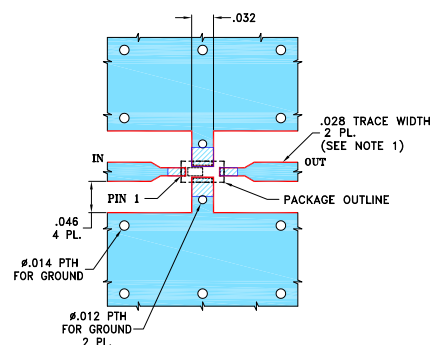
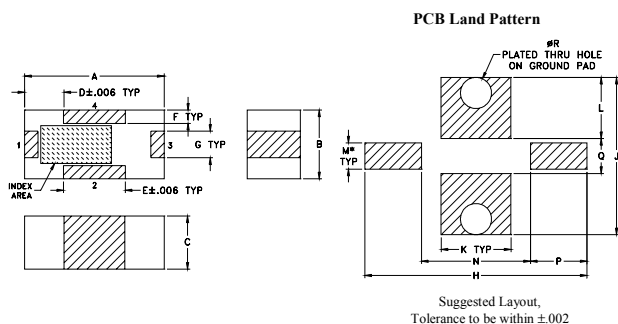
REV. OR
M172548
BPJC-252R+
SL/CP/AM
190801
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Bandpass Filter

BPJC-252R+

Outline Drawing

Demo Board MCL P/N: TB-1023+
Suggested PCB Layout (PL-563)



- NOTES:**
- TRACE WIDTH IS SHOWN FOR FR4, GRADE IT-180TC (ITEQ CORP.) WITH DIELECTRIC THICKNESS .016 \pm .0015. COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH & GAP 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.

Outline Dimensions ($\frac{\text{inch}}{\text{mm}}$)

| A | B | C | D | E | F | G | H | J |
|------|------|------|------|------|------|------|-------|------|
| .063 | .031 | .024 | .018 | .028 | .006 | .012 | .100 | .071 |
| 1.60 | 0.79 | 0.61 | 0.46 | 0.71 | 0.15 | 0.30 | 2.54 | 1.80 |
| K | L | M | N | P | Q | R | wt | |
| .032 | .028 | .012 | .049 | .026 | .016 | .014 | grams | |
| 0.81 | 0.71 | 0.30 | 1.24 | 0.66 | 0.41 | 0.36 | 0.005 | |

Additional 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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