

LTCC

Bandpass Filter

50Ω 2400 to 2500 MHz

Features

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

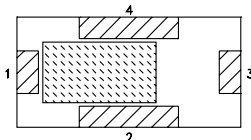
Applications

- 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

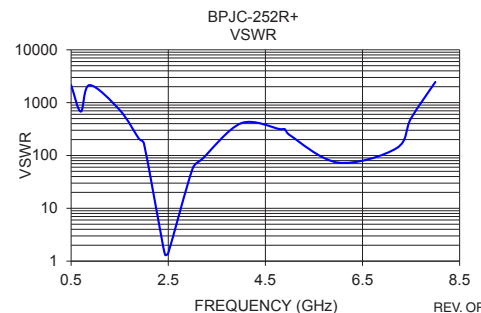
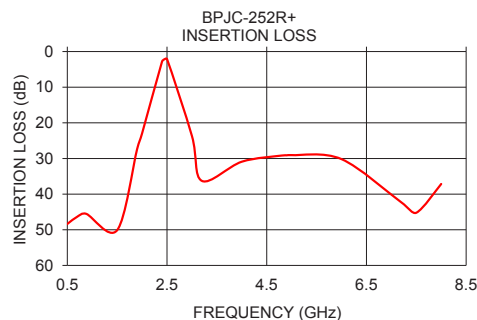
Suggestion for T&R unused product storage condition:

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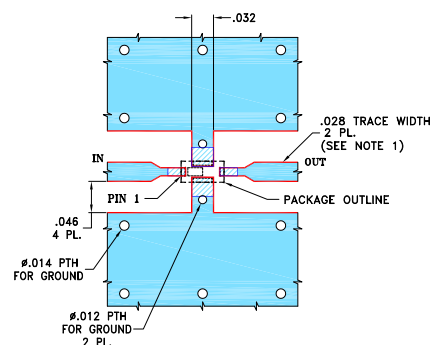
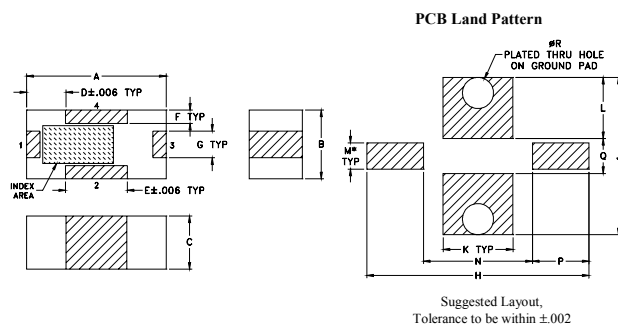
REV. OR
M172548
BPJC-252R+
SL/CP/AM
190801
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Bandpass Filter

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