Bandpass Filter

50Ω 2400 to 2500 MHz

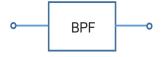
Features

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

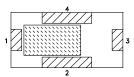
Applications

- 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



Electrical Specifications at 25°C

Parameter		F#	Frequency (MHz)	Min.	Тур.	Max.	Unit
	Center Frequency		_	_	2450	_	MHz
Pass Band	Insertion Loss	F1-F2	2400 – 2500	_	2.3	3.2	dB
	VSWR	F1-F2	2400 – 2500	_	1.4	2	:1
Stop Band, Lower	Poinction		695 – 880	25	46	_	dB
	Rejection		1910	20	26	–	dB
			3200	35	38	_	dB
Stop Band, Upper	Rejection		4800 - 5000	20	29	_	dB
	•		7200 - 7500	20	43	_	dB

^{1.} Tested on Evaluation Board TB-1023+.

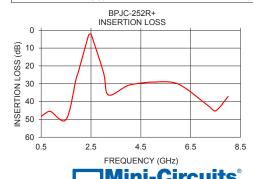
Maximum Ratings

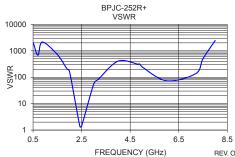
Operating Temperature	-40°C to +85°C
Storage Temperature*	-40°C to +85°C
RF Power Input**	0.5W at 25°C

^{*} Refer to product storage temperature after installation Suggestion for T&R unused product storage condition:

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



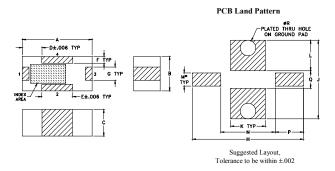


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^{+5 ~ +35 °}C, Humidity 45~75%RH, 12 month Max

^{**}Derate linearly to 0.25W at 85°C.

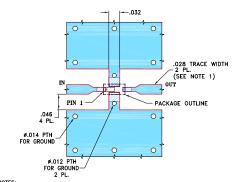
Outline Drawing



Outline Dimensions (inch)

Α	В	С	D	E	F	G	Н	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
1/			N.I.	D	_	_		
K	L	М	Ν	Р	Q	R		wt
K .032	L .028	M .012		P .026		R .014		wt grams

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



NOTES:

1. TRACE WIDTH IS SHOWN FOR FR4, GRADE IT-180TC (ITEQ CORP.)
WITH DIELECTRIC THICKNESS .0164.0015. COPPER: 1/2 02. EACH SIDE.
FOR OTHER MARINALS TRACE WIDTH & GAP MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND FLAME.

DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER).

DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK.

Additional Notes

- A. 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.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp



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