

LTCC

High Pass Filter

50Ω 2400 to 2500 MHz

Features

- Miniature size 0603
- High stop band rejections
- Low cost
- Aqueous washable

Applications

- ISM Band
- WLAN
- Bluetooth
- Zigbee

HPJC-252R+



Generic photo used for illustration purposes only

CASE STYLE: JC0603C-4

+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

Block Diagram



Electrical Specifications at 25°C

Parameter		Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss ¹	2400 - 2500	—	1.0	1.4	dB
	VSWR	2400 - 2500	—	1.5	1.7	:1
Stop Band	Rejection Loss	500-1917	—	35	—	dB
		1917	18	25	—	

1. Tested on Evaluation Board TB-1025+

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature ²	-40°C to 85°C
RF Power Input ³	2W at 25°C

2. Refer to product storage temperature after installation

Suggestion for T&R unused product storage condition:

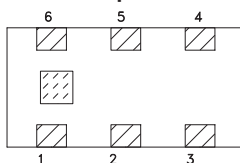
+5 ~ +35 °C, Humidity 45~75%RH, 12 month Max

3. Derate linearly to 1W at 85°C.

Typical Performance Data at 25°C

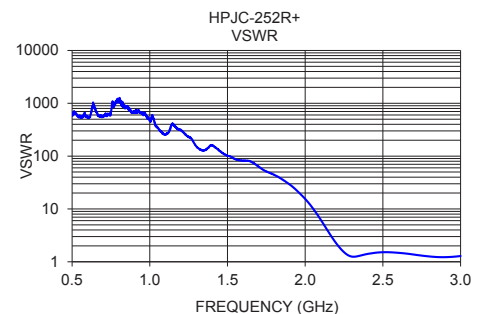
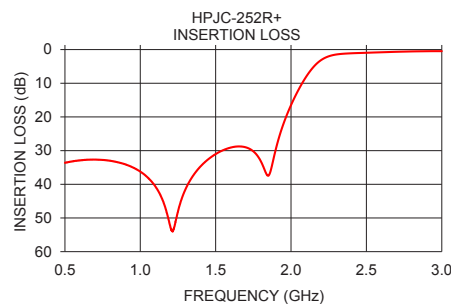
Frequency (GHz)	Insertion Loss (dB)	VSWR (:1)
0.50	33.63	589.33
1.00	36.24	467.00
1.50	31.02	100.87
1.917	26.58	26.60
2.00	16.47	15.45
2.30	1.46	1.25
2.40	1.10	1.40
2.45	1.02	1.48
2.50	0.95	1.52
2.60	0.80	1.48
3.00	0.47	1.29

Top View



Pad Connections

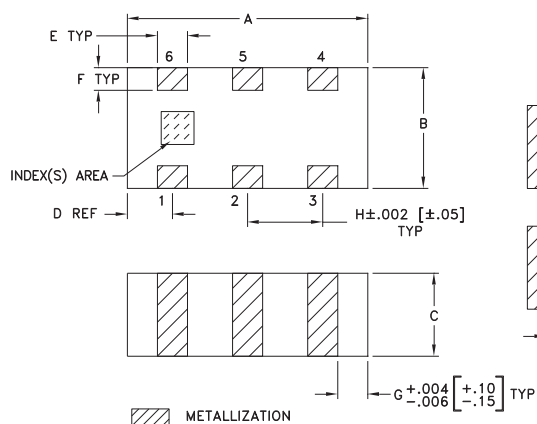
Input	1
Output	3
Ground	2,5
No Connection	4,6



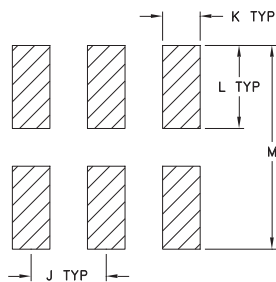
High Pass Filter

HPJC-252R+

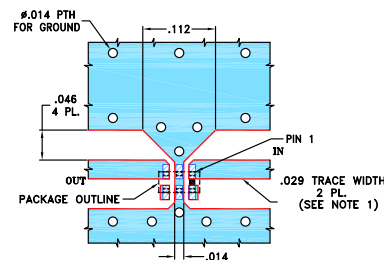
Outline Drawing



PCB Land Pattern



Evaluation Board MCL P/N: TB-1025+ Suggested PCB Layout (PL-553)



NOTES:

1. 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.

2. 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
.063	.032	.022	.012	.008	.006	.008
1.60	0.81	0.56	0.30	0.20	0.15	0.20
H	J	K	L	M		wt
.020	.020	.010	.022	0.053		grams
0.51	0.51	0.25	0.56	1.35		.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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