

LTCC 带通滤波器 (LTCC Bandpass Filter)

HT-BFCN-1052+

50 Ω 9700MHz to 11950MHz

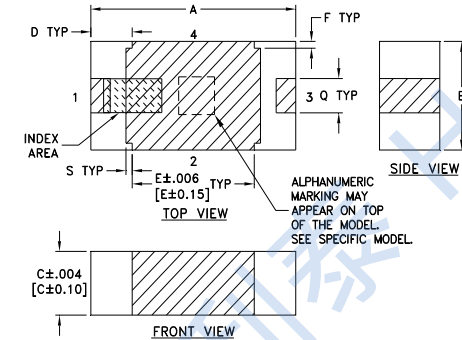
The Big Deal

- Small size 3.2mm x 1.6mm
- Low loss in passband (1.5 dB typ over 9700 to 11950 MHz)
- Very high rejection over wide band

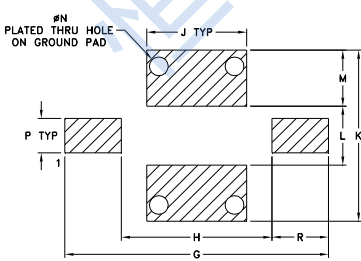
Features and Applications

- Small size
- Temperature stable
- Hermetically sealed
- LTCC construction
- Harmonic Rejection
- Transmitters / Receivers
- Test and Measurement

Outline Drawing



PCB Land Pattern



Suggested Layout,
Tolerance to be within $\pm .002$

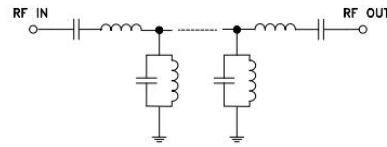
Pad Connections

Input	1
Output	3
Ground	2, 4

Outline Dimensions : inch mm

A	B	C	D	E	F	G	H	J
.126	.063	.037	.026	.075	.004	.182	.104	.069
3.20	1.60	0.94	0.66	1.91	0.10	4.62	2.64	1.753
K	L	M	N	P	Q	R	S	
0.119	0.041	.039	.013	.024	.020	.039	.004	
3.023	1.041	0.99	0.33	0.61	0.51	0.99	0.10	

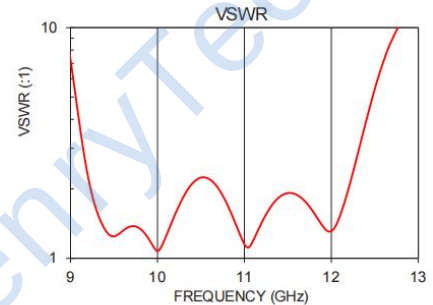
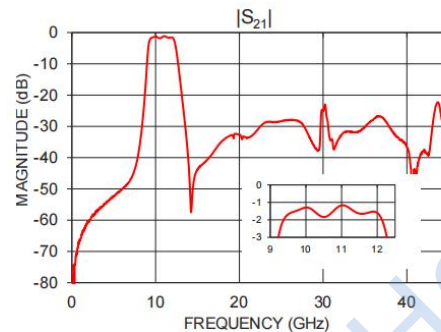
Functional Schematic



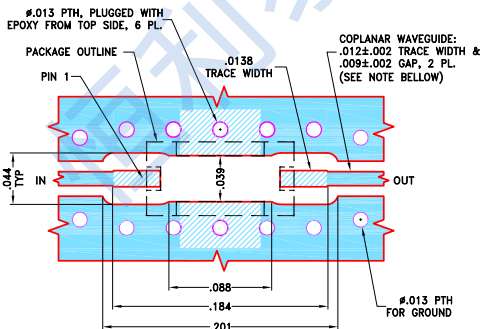
Electrical Specifications(1,2) at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center Frequency	—	10770	—	MHz
	Insertion Loss	9700-11950	1.6	3.0	dB
	VSWR	9700-11950	1.9	—	:1
Stop Band, Lower	Insertion Loss	DC-8100	30	38	dB
		8100-8400	20	32	dB
Stop Band, Upper	Insertion Loss	14000-28500	20	28	dB
		28500-44000	—	25	dB

Typical Performance Data at 25°C



Demo Board MCL P/N:TB-1003 + Suggested PCB Layout (PL- 610)



NOTES:

1. TRACE WIDTH AND GAP PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .0066" $\pm$.0007". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH AND GAP MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
3. UNIT LAND PATTERN WAS OPTIMIZED FOR BETTER PERFORMANCE.

- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER).
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK.

Maximum Ratings

Operating Temperature	-55°C to +100°C
Storage Temperature	-55°C to +100°C
RF Power Input*	2W at 25°C

*Passband rating, derate linearly to 0.5W at 100°C ambient
Permanent damage may occur if any of these limits are exceeded.

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