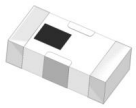
Low Pass Filter

JY-LFCN-105+



Generic photo used for illustration purposes only

50Ω DC to 105 MHz

Features

- excellent power handling
- small size
- 7 sections
- temperature stable
- LTCC construction , and has good moisture resistance, corrosion resistance, high reliability.

Applications

- harmonic rejection
- VHF/UHF transmitters/receivers
- anti-aliasing for A/D converter

Maximum Ratings

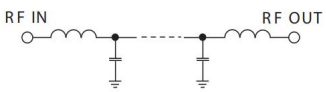
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	8.5W max. at 25°C

* Passband rating, derate linearly to 3.5W at 100°C ambient.
Permanent damage may occur if any of these limits are exceeded.

Electrical Specifications at 25°C

Parameter		Frequency(MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-105	-	-	1.0	dB
	Freq.Cut-Off	140	-	3.0	-	dB
	VSWR	DC-105	-	1.4	-	:1
Stop Band	Rejection Loss	250	20	30	-	dB
		265-1650	-	35	-	dB
		4750	-	23	-	dB
	VSWR	250-4750	-	20	-	:1

Electrical Schematic



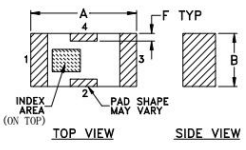
Typical Performance Data at 25°C

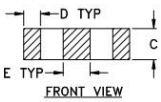
Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1	0.35	1.10
50	0.65	1.40
100	0.91	1.41
105	0.94	1.37
125	1.21	1.14
200	35.67	15.62
225	44.62	22.15
500	46.55	88.14
1000	46.10	145.17
1550	42.26	170.10
2000	34.15	172.43
2500	29.42	146.20
3500	26.69	113.29
4500	20.81	55.64
5000	18.34	35.05

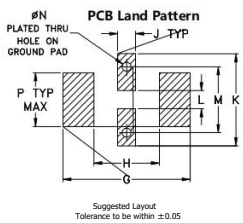
Pin Connections

RF IN	1
RF OUT	3
GROUND	2,4

Outline Drawing

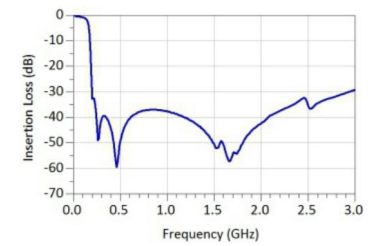


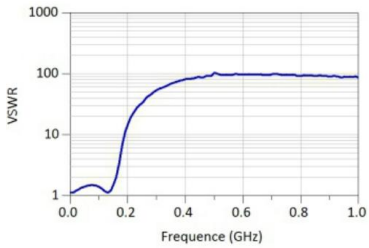




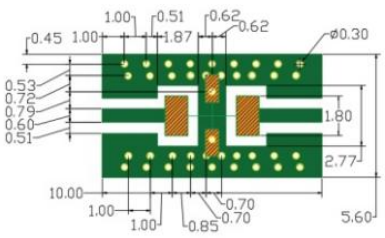
Outline Dimensions：Unit (mm)

A	3.20	B	1.60	C	0.95
D	0.51	E	0.81	F	0.23
G	4.29	H	2.21	J	0.61
K	3.10	L	0.61	M	2.21
N	0.30	P	1.80	wt	0.02g





Suggested PCB Layout



NOTES: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350 WITH THICKNESS .508" ± .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

JY-LFCN-105+

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