

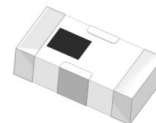
Features

- excellent power handling
- Small size
- 7 sections
- temperature stable
- LTCC construction with great moisture resistance, corrosion resistance, and high reliability

Applications

- sub-harmonic rejection
- transmitters/receivers
- base station of mobile communication and lab use

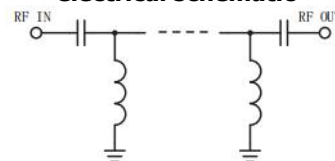
JY-HFCN-740+



Generic photo used for illustration purposes only

50 Ω 780 to 2800 MHz

electrical schematic



Pin Connections

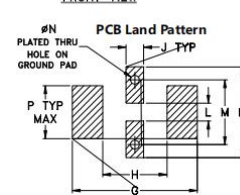
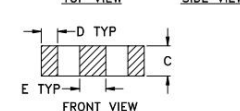
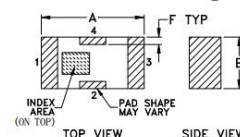
RF IN	1
RF OUT	3
GROUND	2,4

Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input	7W 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.

Outline Drawing



Suggested Layout
Tolerance to be within ± 0.05

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	1.8	wt	0.02g

Electrical Specifications¹ (T_{AMB}= 25° C)

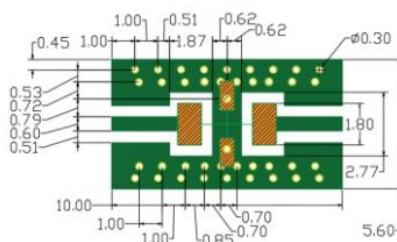
STOP BAND (MHz)		FCO ₁ (MHz) Nom.	PASS BAND (MHz)		VSWR (:1)		POWER INPUT (W)	NO. OF SECTION S
(Loss>33dB) Min.	(Loss>20dB) Min.	(Loss 3dB) Typ.	(Loss<1.3dB) Max.	(Loss<2.1dB) Max.	Stopband Typ.	Frequency (MHz) 1.5:1		
430	550	740	900-2200	780-2800	20:1	740-3200	7	7

1. In Application where DC voltage is present at either input or output ports, coupling capacitors are required.

Typical Performance Data at 25° C

Frequency (MHz)	Return Loss (dB)	Insertion Loss (dB)	VSWR (:1)
1	0.04	84.12	394.81
100	0.20	48.83	86.78
430	0.49	36.31	35.35
550	0.77	30.92	22.51
740	24.21	2.84	1.13
780	21.06	2.11	1.19
900	27.17	1.29	1.09
1900	14.74	0.84	1.45
2200	16.31	0.80	1.36
2800	34.91	0.78	1.04
3200	20.19	0.89	1.22
4000	11.26	1.38	1.75

Suggested PCB Layout



- ES: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350 WITH THICKNESS .508" $\pm$.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