

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

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

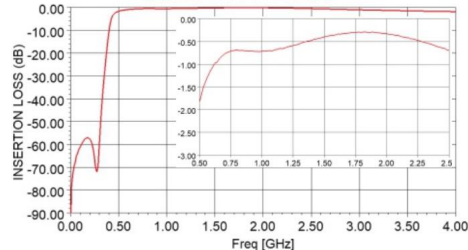
STOP BAND (MHz) Min		FCO ₀ (MHz) Nom.	PASS BAND (MHz)		VSWR (:1)		POWER INPUT (W)	NO. OF SECTIONS
(Loss>40dB) Min.	(Loss>20dB) Min.	(Loss 3dB) Typ.	(Loss<1.3dB) Max.	(Loss<2dB) Typ.	Stopband	Frequency (MHz) 1.6:1		
230	350	440	600-1700	500-2500	20:1	500-1700	7	7

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

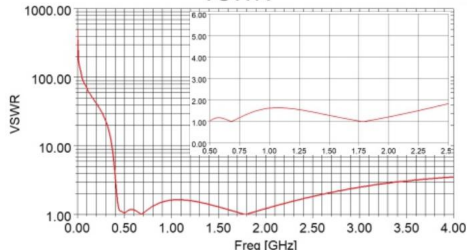
Typical Performance Data at 25° C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
30.53	67.79	97.09
100.00	61.35	70.51
230.00	60.66	36.14
350.00	30.68	13.62
385.00	15.85	6.35
410.00	7.98	2.68
440.00	3.65	1.21
450.00	3.06	1.13
500.00	1.84	1.05
510.00	1.71	1.07
600.00	1.08	1.16
800.00	0.68	1.31
1000.00	0.71	1.62
1500.00	0.40	1.29
1700.00	0.32	1.08
2500.00	0.70	1.83
4000.00	1.98	3.53

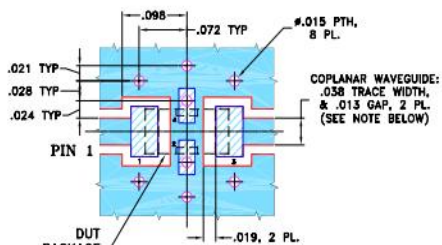
INSERTION LOSS



VSWR

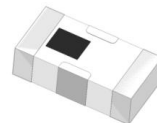


Suggested PCB Layout



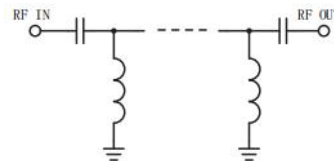
- NOTES: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH THICKNESS .020" ± .0015". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH & GAP MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- COPLANAR WAVEGUIDE: .038 TRACE WIDTH, & .013 GAP, 2 PL. (SEE NOTE BELOW)
- PIN 1
- DUT PACKAGE OUTLINE
- .098
- .072 TYP
- #.015 PTH, 8 PL.
- .021 TYP
- .028 TYP
- .024 TYP
- .019, 2 PL.
- COPLANAR WAVEGUIDE: .038 TRACE WIDTH, & .013 GAP, 2 PL. (SEE NOTE BELOW)
- PIN 1
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- .021 TYP
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- .019, 2 PL.

JY-HFCN-440+



50 Ω 500 to 2500 MHz

electrical schematic



Pin Connections

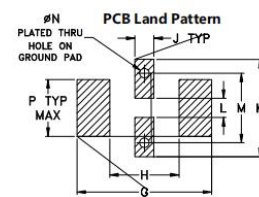
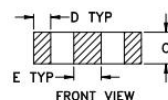
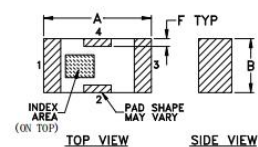
RF IN	1
RF OUT	3
GROUND	2,4

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 3W at 100°C ambient.
Permanent damage may occur if any of these limits are exceeded.

Outline Drawing



Suggested Layout
Tolerance to be within ±0.02

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