

High Pass Filter

SCHF-EDU0316

Surface Mount

Important Note

This model has been designed, built and tested in our engineering department. Performance data represents model capability. At present it is a non-catalog model. On request, we can supply a final specification sheet, part number and price/delivery information.



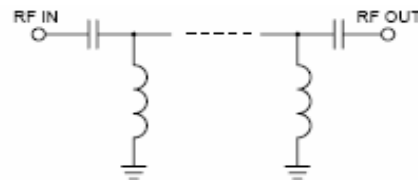
Please click "Back", and then click "Contact Us" for Applications support.

CASE STYLE : YY161

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C				
Parameter	Min.	Typ.	Max.	Units
Passband (Loss < 1 dB)	31		1500	MHz
fco Nom. (Loss 3 dB)		28.5		MHz
Stopband (Loss > 40 dB)	DC		20.5	MHz
(Loss > 20 dB)	20.5		23.5	MHz
Passband VSWR		1.3		(:1)
Stopband VSWR		18		(:1)

MAXIMUM RATINGS	
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5 W

Functional Schematic



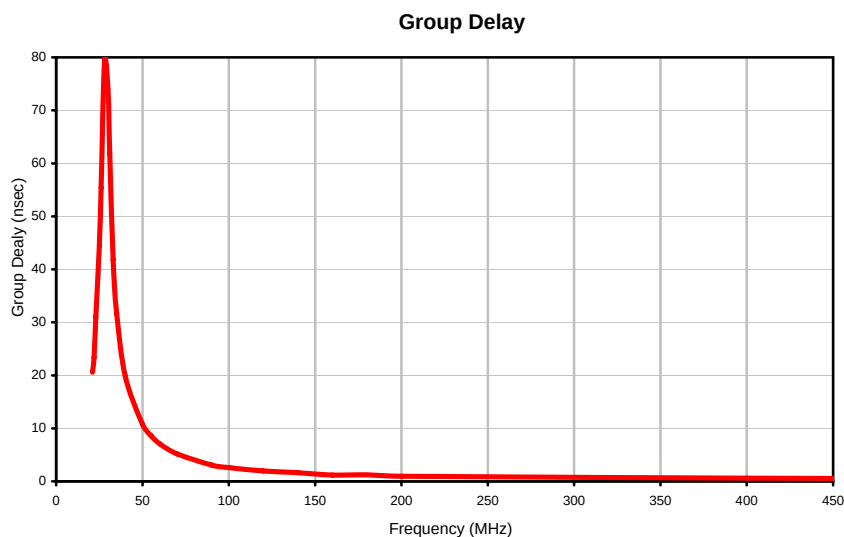
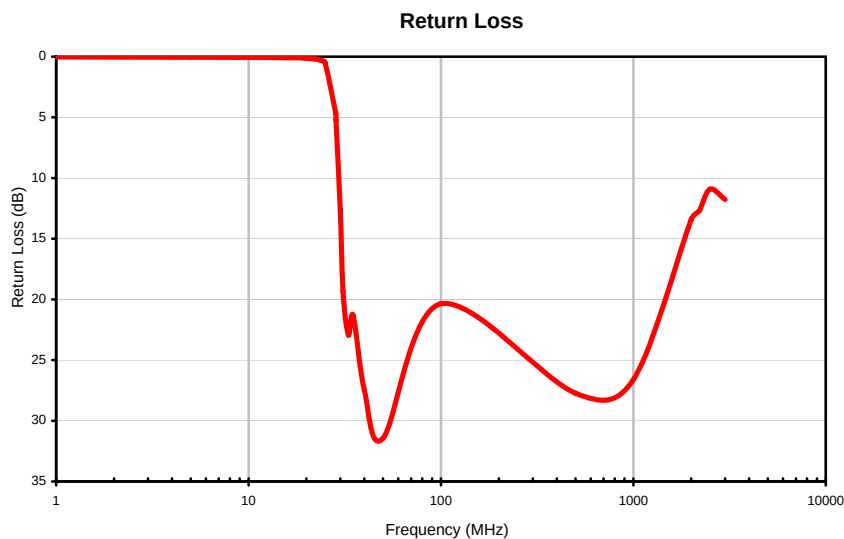
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Typical Performance Data

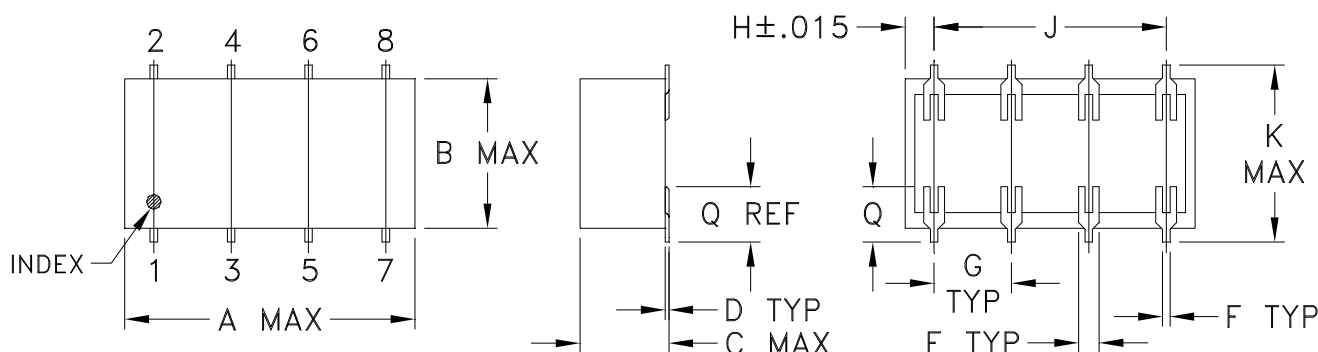
FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
0.50	66.75	0.01	21.00	20.58
5.00	66.83	0.05	22.00	23.41
10.00	73.45	0.06	23.00	31.04
12.00	80.31	0.07	25.00	44.53
16.00	74.21	0.09	26.00	55.39
18.00	66.20	0.09	28.00	79.23
19.00	59.58	0.11	30.00	73.98
20.00	50.70	0.13	31.00	61.80
20.50	46.26	0.14	33.00	41.86
21.00	42.62	0.16	35.00	31.74
22.00	36.07	0.19	40.00	19.85
22.50	32.79	0.20	50.00	10.75
23.50	27.05	0.28	55.00	8.61
24.00	24.20	0.32	60.00	7.08
25.00	18.82	0.50	70.00	5.18
28.40	3.93	4.71	90.00	3.08
28.50	3.75	5.20	100.00	2.59
30.00	1.07	12.64	120.00	1.97
31.00	0.76	19.35	140.00	1.64
33.00	0.47	22.93	160.00	1.17
35.00	0.40	21.36	180.00	1.25
40.00	0.28	27.46	200.00	0.98
50.00	0.20	31.45	400.00	0.59
100.00	0.21	20.35	500.00	0.55
500.00	0.25	27.73	800.00	0.49
1000.00	0.37	26.60	1000.00	0.51
2000.00	1.24	13.42	1500.00	0.49
2200.00	1.94	12.72	2000.00	0.57
2500.00	2.12	10.91	2500.00	0.64
3000.00	3.83	11.78	3000.00	0.88

Typical Performance Curves

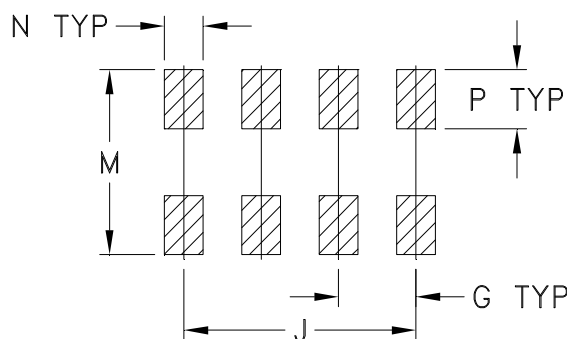


Outline Dimensions

YY101
YY109
YY161



PCB Land Pattern



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

CASE#	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	WT. GRAM S
YY101*			.20 (5.08)							.450 (11.43)	--	.470 (11.94)				1.6
YY109*	.75 (19.05)	.38 (9.65)	.20 (5.08)	.010 (0.25)	.050 (1.27)	.020 (0.51)	.200 (5.08)	.075 (1.91)	.600 (15.24)	.720 (18.29)	--	.740 (18.80)	.100 (2.54)	.150 (3.81)	.148 (3.76)	1.6
YY161			.28 (7.11)							.450 (11.43)	--	.470 (11.94)				1.6

Dimensions are in inches (mm). Tolerances: 2 Pl. $\pm .01$; 3 Pl. $\pm .005$

Notes:

- Case material: Plastic.
- Termination finish:
For RoHS Case Styles: Tin plate over Nickel plate.
For RoHS-5 Case Styles: Tin-Lead plate.
- Special Tolerances: Termination thickness $\pm .003$ inch.
- * Denotes: For SCM mixers, long termination version (case YY109) is available upon request, consult factory. To order short termination version (case YY101) add -NL suffix.



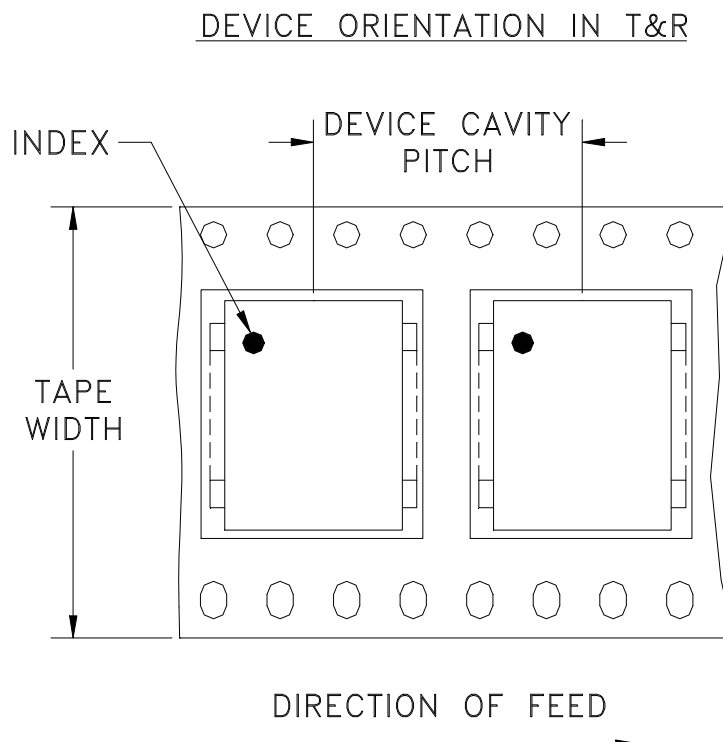
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Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-40° to 85°C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Humidity	90 to 95% RH, 240 hours, 50°C	MIL-STD-202, Method 103, Condition A, Except 50°C and end-point electrical test done within 12 hours
Thermal Shock	-55° to 100°C, 100 cycles	MIL-STD-202, Method 107, Condition A-3, except +100°C
Solder Reflow Heat	Sn-Pb Eutetic Process: 225°C peak Pb-Free Process 245° - 250°C peak	J-STD-020, Table 4-1, 4-2 and 5-2, Figure 5-1
Solderability	10X Magnification	J-STD-002, 95% Coverage
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	50g, 11 ms, 1/2-sine, 18 shocks: 3 each direction, each of 3 axes	MIL-STD-202, Method 213, Condition A
Marking Resistance to Solvents	Isopropyl alcohol + mineral spirits at 25°C; terpene defluxer at 25°C; distilled water + proylene glycol monomethyl ether + monoethanolamine at 63°C to 70°C	MIL-STD-202, Method 215