Ceramic

High Pass Filter

HFTC-9R5+

50Ω 1300 to 3500 MHz



Generic photo used for illustration purposes only

CASE STYLE: FR933

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Available Tape and Reel at no extra cost

Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500, 1000
13"	2000, 3000, 4000

Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 125°C

Permanent damage may occur if any of these limits are exceeded.

Pin Connections

RF IN	2
RF OUT	5
GROUND	1,3,4,6

Product Marking: HF7

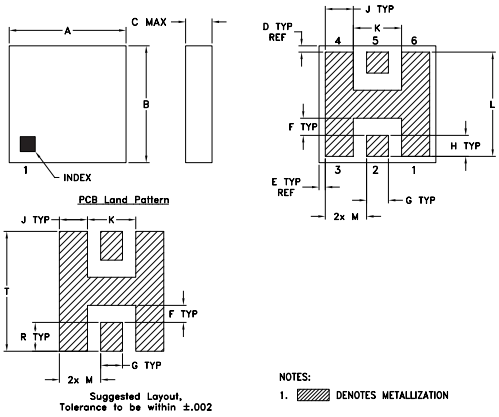
Features

- miniature size, 0.15"X0.15"X0.034"
- low profile, 0.034" height
- low pass-band insertion loss, 1.0 dB typ.
- excellent input power handling, 14W
- hermetically sealed

Applications

- sub-harmonic rejection
- transmitters/receivers

Outline Drawing

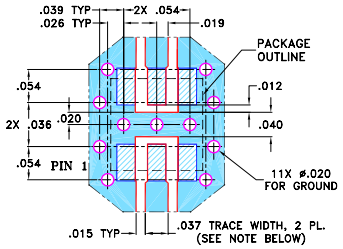


Outline Dimensions (inch / mm)

A	B	C	D	E	F	G	H
.150	.150	.034	.008	.008	.022	.028	.027
3.81	3.81	0.864	0.203	0.203	0.559	0.711	0.686

J	K	L	M	R	T		wt
.036	.062	.134	.053	.037	.154		grams
0.914	1.575	3.404	1.346	0.940	3.912		0.15

Demo Board MCL P/N: TB-233
Suggested PCB Layout (PL-112)



NOTES: 1.TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS 0.020" ± 0.0015"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH 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

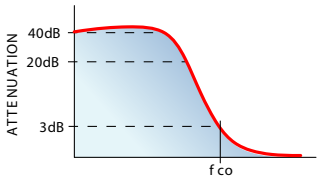
Electrical Specifications (T_{AMB}=25°C)

STOP BAND (MHz)		fco, MHz Nom.	PASSBAND (MHz)	VSWR (:1)		POWER INPUT* (W)	MARKING	NO. OF SECTIONS
		(loss 3 dB)		Stopband	Passband			
(loss > 40 dB)	(loss > 20 dB)	Typ.	(loss < 1.3 dB)	Typ.	Typ.			
DC-600	750	950	1300-3500	18	1.3	14	HF7	7

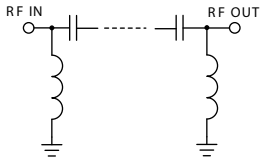
* Derate linearly to 6W at 100°C ambient.

1.This filter is not intended for use as a DC Blocking circuit element. In Application where DC voltage is present at either input or output ports, blocking capacitors are required at the corresponding RF port.

typical frequency response

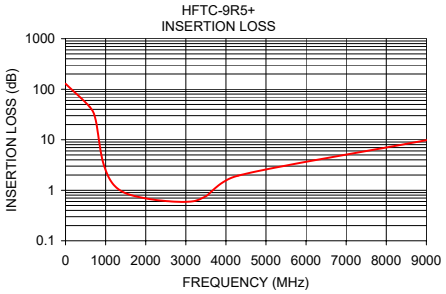


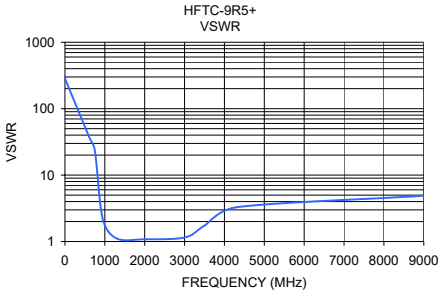
electrical schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	128.65	285.20
600.00	44.78	38.32
750.00	25.06	23.43
950.00	3.28	2.16
1300.00	1.08	1.11
2000.00	0.69	1.08
3000.00	0.59	1.15
3500.00	0.76	1.74
4300.00	1.94	3.28
9000.00	9.82	4.89





Notes

A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp