

# Band Reject Filters



RLC Electronics' Customized Band Reject Filters are designed to operate over the frequency range of 10 to 12,000 MHz. These filters are characterized by having the reverse properties of band pass filters. The filters are available in compact sizes and are constructed to operate over the most severe military environmental conditions. The 3 dB band reject band-widths may be chosen from 0.5 to 15% of the center frequency. They are available with a choice of the 2 through 9 sections.

## Specifications

BRF<sup>-1-2-3-4</sup>

Model Number	Center Frequency Range (MHz)	3 dB Bandwidth (% of fc)	Number of Sections	3 dB Bandwidth 40 dB Ratio
BRF	10 to 1,000	5 to 40	2	30
			3	7
			5	3.4
	1,000 - 12,000	0.5 to 15.0	7	2.7
			9	2.3

**VSWR:** 1.5:1 DC to 2 x fc <6000 MHz, 1.8:1 DC to 2 x fc >6000 MHz  
**Insertion Loss:** 1dB maximum  
**Connectors:** N, BNC, TNC, SMA, Female  
**Power Rating:** 25 watts  
**Impedance:** 50 ohms

### Type Recommended Freq Rng, MHZ:

N DC-12,400  
 BNC DC-1,000  
 TNC DC-15,000  
 SMA DC-26,000

**Environment:** MIL-E-5400, Class 1A

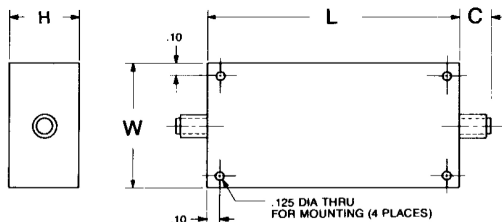
### To designate the filter desired use:

**1:** Center Frequency in MHz  
**2:** 3 dB Bandwidth in MHz.

**3:** Number of Sections  
**4:** "N" for type N, "B" for BNC, "T" for TNC and "R" for SMA

Example: BRF-50-5-4-R is a 50 MHz center frequency, 5 MHz 3 dB bandwidth, 4 section, Band reject filter with SMA(f) connectors.

## Outline Drawing



Center Frequency (MHz)	Approximate Dimension Table		
	W	H	L (N is the number of sections)
10 to 1000	1.0	0.75	$N * .5 + 1.5$
1000 to 6000	$\frac{2950}{fc} + 1.0$	0.63	$\frac{2950}{fc} * N + .36$
6000 to 12,000	$\frac{5900}{fc} + 1.0$	0.50	$\frac{2950}{fc} * N + .36$

CONNECTORS	R	N	T/B
"C" Dimension	.30	.60	.52

Tolerances unless otherwise specified are:  
 .xx, ± .02; .xxx, ± .005.



# Band Reject Filters--Tunable



RLC Electronics now provides band stop and cavity filters that can be re-adjusted by the customer to new center frequencies. These filters are tunable over a +/-7.5% center frequency range with minimal change in bandwidth.

## Specifications

BRFT<sup>-1-2-3-4</sup>

Model	Center Frequency Range (MHz)	3 dB Bandwidth (% of fc)	Number of Sections	3 dB / 40 dB Bandwidth Ratio
BRFT	1,000 to 6,000	0.5 to 12	2	30
			3	7
			5	3.4
			7	2.7
			9	2.3

**Power Rating:** 2.0 watts

**Impedance:** 50 ohms

**VSWR:** 1.5:1, fc to 2 x fc

**Outlines:** See page 65 for dimensions

**Temperature:** -55C +85C

**Environment:** MIL-E-5400, Class 1A

**Connectors:** SMA, N (female)

### To designate the filter desired use:

**1:** Center Frequency in MHz

**2:** 3dB Bandwidth in MHz

**3:** Number of Sections

**4:** Connectors : N for type N, or R for SMA

Example: BRFT-1500-15-5-R is 1500 MHz center frequency, 15 MHz 3 dB bandwidth, 5 section, tunable from 1388 to 1612 MHz, Band Reject filter with SMA female connectors.



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