Coaxial

Low Pass Filter

VLFG-320+

50Ω DC to 320 MHz

Generic photo used for illustration purposes only

CASE STYLE: FF704

The Big Deal

- Excellent power handling, 3.5W
- Temperature stable
- Rugged, unibody construction
- Good rejection, 33 dB typical

Product Overview

VLFG-320+ is a 50Ω low pass filter built in rugged unibody construction. Covering DC-320 MHz bandwidth, these units offer good matching within the passband and high rejection in stopband. VLFG-320+ offer low insertion loss, and excellent power handling capability. It handles up to 3.5W RF input power and provides a wide operating temperature range from -55°C to 125°C.

Key Features

Feature	Advantages
Low passband insertion loss	Suitable for high performance application.
3.5W Power handling	Supports a range of system power requirements.
Connectorized package	The connectorized package is easy to interface with other devices and well suited for test setups.

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

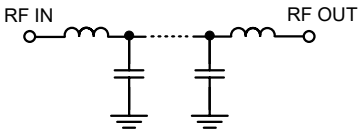
Features

- Low loss, 1 dB typical
- Good rejection 33 dB typical
- Excellent power handling, 3.5 W
- Temperature stable
- Connectorized package

Applications

- Harmonic Rejection
- VHF/UHF transmitters / receivers
- RF suppression for DC lines on PCB
- Anti-aliasing for A/D converter

Functional Schematic



Electrical Specifications at 25°C

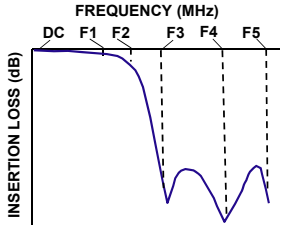
Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-F1	DC - 320	—	1.0	1.7	dB
	Freq. Cut-Off	F2*	440	—	3.0	—	dB
	Return Loss	DC-F1	DC - 320	—	21	—	dB
Stop Band	Rejection Loss	F3-F4	660 - 2000	25	33	—	dB
		F4-F5	2000 - 6000	—	25	—	dB

In Application where DC voltage is present at either input or output port, DC blocks are required.
* Typically, a ±5% frequency deviation from the stated value may occur on a unit-to-unit basis.

Maximum Ratings	
Operating Temperature	-55°C to 125°C
Storage Temperature	-55°C to 125°C
RF Power Input*	3.5 W max.@25°C

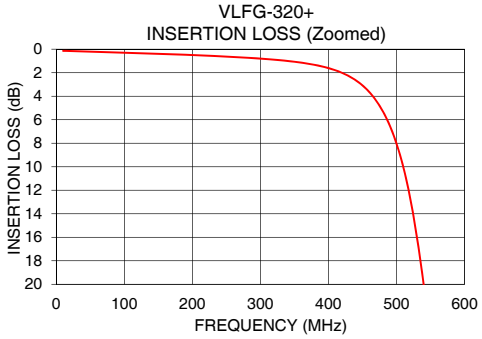
*Passband rating, derate linearly to 0.6 W at 125°C ambient
Permanent damage may occur if any of these limits are exceeded.

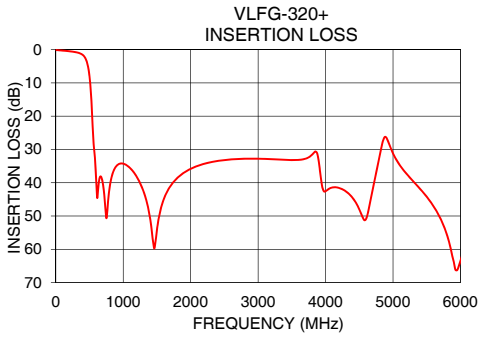
Typical Frequency Response

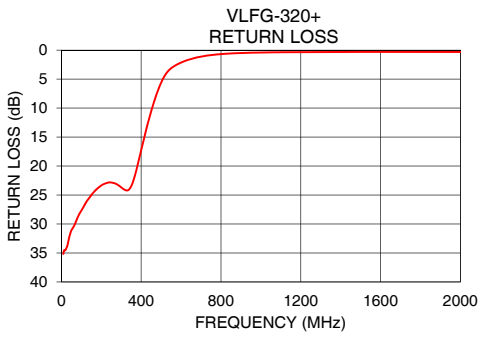


Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)
10	0.14	35.16
50	0.21	31.12
100	0.30	27.72
320	0.89	24.14
400	1.61	17.26
440	2.64	11.80
450	3.08	10.58
525	14.22	4.06
540	20.07	3.44
570	30.30	2.67
660	38.13	1.43
700	40.46	1.12
800	41.20	0.68
1000	34.27	0.41
1500	54.12	0.32
2000	35.82	0.31
3000	32.79	0.33
4000	42.56	0.35
5000	31.20	0.60
6000	63.43	0.34





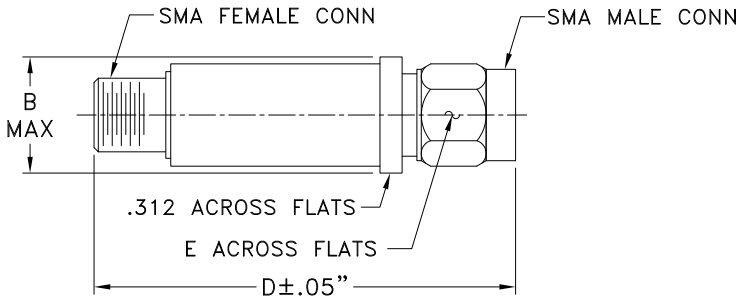


Notes
A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's 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

Coaxial Connections

PORT - 1	SMA-Male
PORT - 2	SMA-Female

Outline Drawing



Outline Dimensions (inch / mm)

B	D	E	wt.
.410	**1.43**	**.312**	grams
10.41	36.32	7.92	10

Note: Please refer to case style drawing for details