

Low Cost SMT High Pass Filter
1700 – 3000 MHz

FL05-0002-G
V1

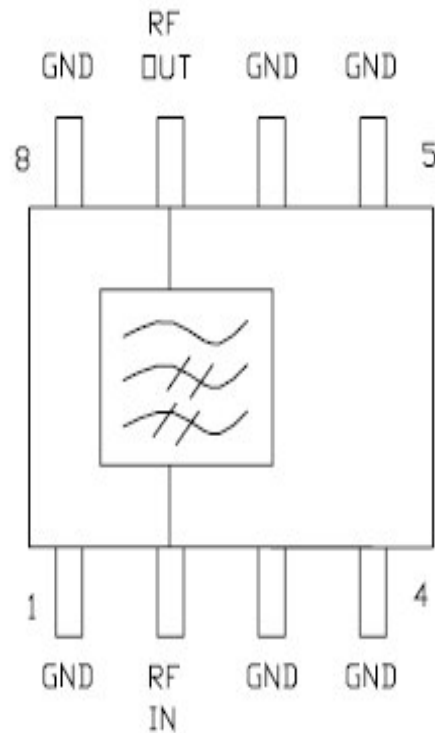
Features

- Small Size and Low Profile
- Industry Standard SOIC-8 SMT Plastic Package
- Superior Repeatability
- Typical Insertion Loss 0.5 dB
- Typical Rejection 20dB
- 2 Watt Power Handling

Description

M/A-COM's FL05-0002-G is an IC-based monolithic high pass filter in a low cost SOIC-8 plastic package. This filter is ideally suited for applications where small size, low cost and low loss are required. Typical applications include base station switching networks and portable phones where size and PCB real estate are at a premium. Available in tape and reel. The FL05-0002-G is fabricated using a passive-integrated circuit process. The process features full-chip passivation for increased performance and reliability.

Functional Block Diagram



All unused pins must be RF and DC grounded.
Pins 1 and 4 are thermal ground contacts.

Ordering Information

Part Number	Package
FL05-0002-G	SOIC 8-Lead Plastic Package
FL05-0002-G-TR	Forward Tape Reel
FL05-0002-G-RTR	Reverse Tape Reel

Note: Reference Application Note M513 for reel size information.

Note: Die quantity varies.

* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

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Electrical Specifications: $T_A = +25^\circ\text{C}$

Parameter	Units	Min	Typ	Max
Insertion Loss: 1700 – 3000 MHz	dB	—	0.5	1.0
VSWR: 1700 – 3000 MHz	—	—	1.5:1	1.8:1
Rejection: DC-1000 MHz	dB	15	20	—

Absolute Maximum Ratings ^{1,2}

Parameter	Absolute Maximum
Input Power	2 W CW
Operating Temperature	-40°C to +85°C
Storage Temperature	-65°C to +150°C

1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. M/A-COM does not recommend sustained operation near these survivability limits.

Handling Procedures

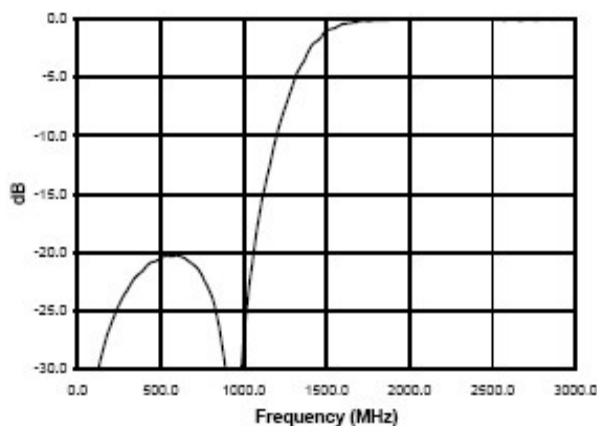
Please observe the following precautions to avoid damage:

Static Sensitivity

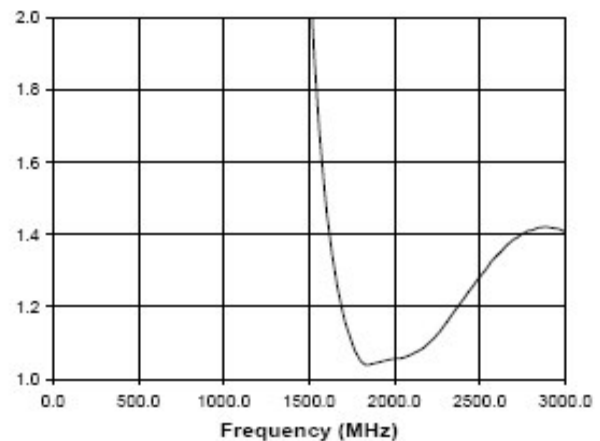
GMIC Circuits are sensitive to electrostatic discharge (ESD) and can be damaged by static electricity. Proper ESD control techniques should be used when handling these devices.

Typical Performance Curves @ 25°C

Insertion Loss vs. Frequency



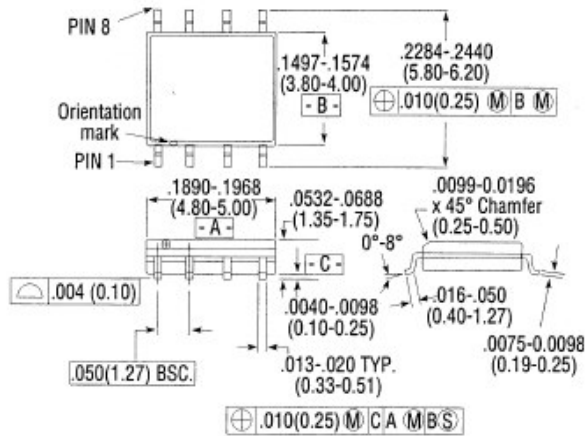
VSWR vs. Frequency



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Lead-Free, SO-8[†]



8- Lead SOP outline dimensions
Narrow body .150
(All dimensions per JEDEC No. MS-012-AA, Issue C)
Dimensions in () are in mm.
Unless Otherwise Noted: .xxx = ±0.010 (.xx = ±0.25)
.xx = ±0.02 (.x = ±0.5)

[†] Reference Application Note M538 for lead-free solder reflow recommendations.