

Features

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

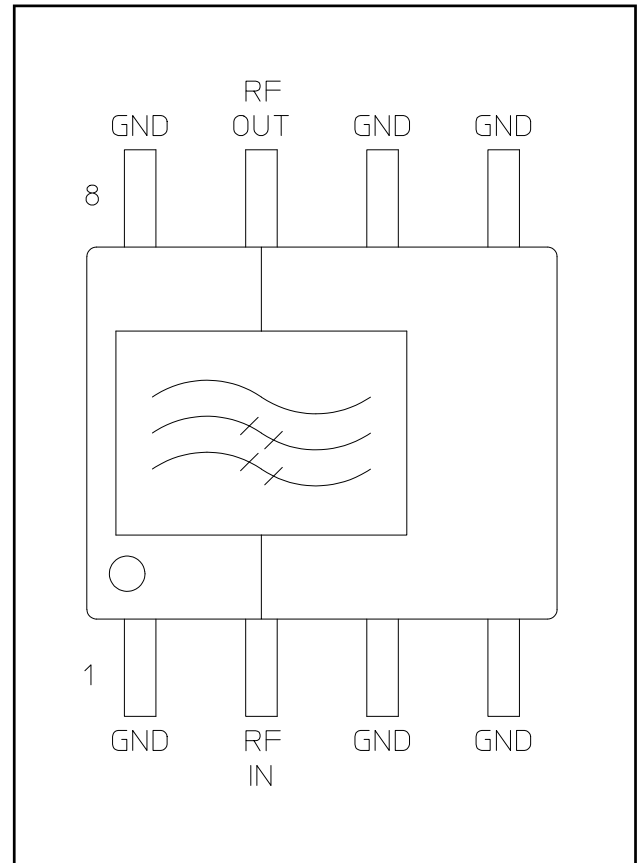
Description

M/A-COM's FL05-0001-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 FL05-0001-G is fabricated using a passive-integrated circuit process. The process features full-chip passivation for increased performance and reliability.

Functional Block Diagram



Ordering Information

Part Number	Package
FL05-0001-G	Bulk Packaging
FL05-0001-G-TR	1000 piece reel
FL05-0001SAM	Sample Test Board

Note: Reference Application Note M513 for reel size information.

Pin Configuration

Pin No.	Function	Pin No.	Function
1	GND	5	GND
2	RF IN	6	GND
3	GND	7	RF OUT
4	GND	8	GND

Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 50\Omega$

Parameter	Units	Min	Typ	Max
Insertion Loss: 800 – 850 MHz	dB	—	—	1.2
	850 – 3000 MHz	—	0.5	1.0
VSWR: 800 – 3000 MHz	—	—	1.5:1	1.8:1
Rejection: DC-400 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

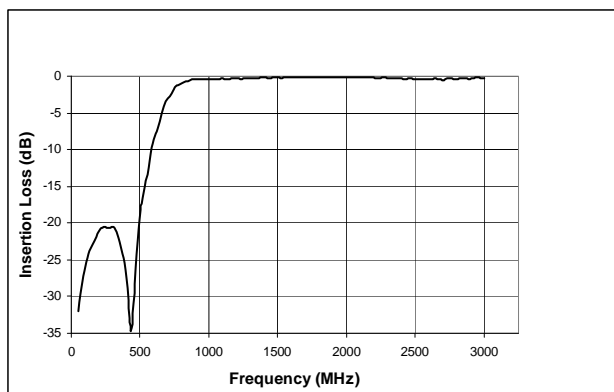
Please observe the following precautions to avoid damage:

Static Sensitivity

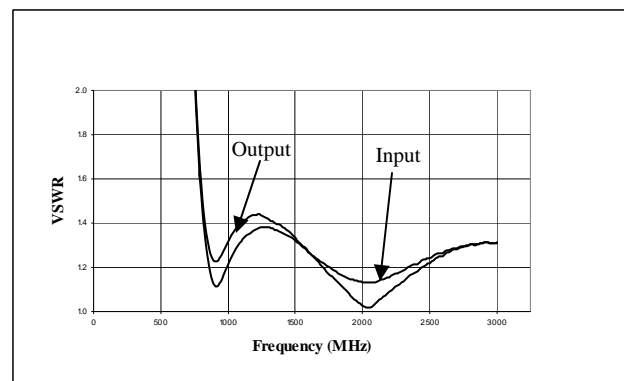
GMIC Circuits are sensitive to electrostatic discharge (ESD) and can be damaged by static electricity. Proper ESD control techniques should be used when handling these devices.

Typical Performance Curves @ 25°C

Insertion Loss vs. Frequency

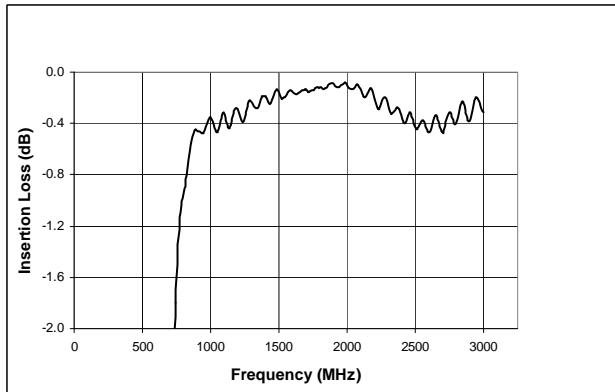


VSWR vs. Frequency

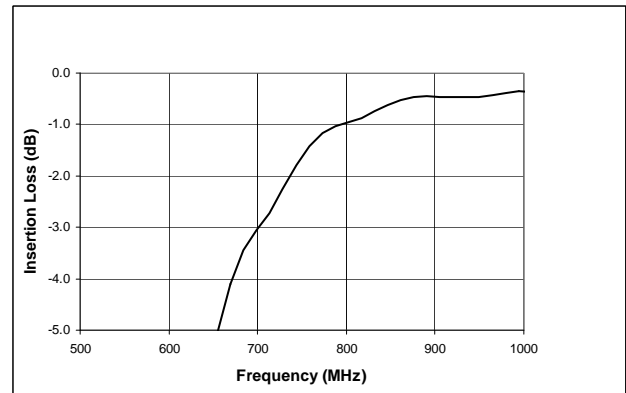


Typical Performance Curves @ 25°C

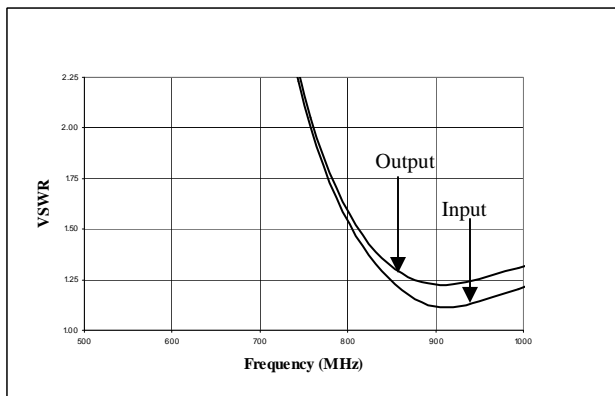
Passband Insertion Loss vs. Frequency



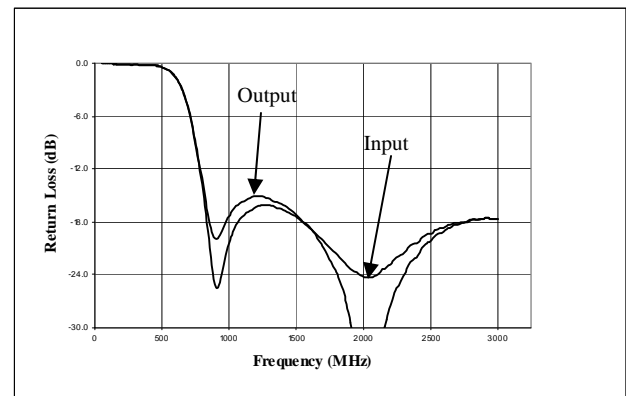
Insertion Loss at Edge of Passband vs. Frequency



VSWR at Edge of Passband vs. Frequency



Return Loss at Edge of Passband vs. Frequency

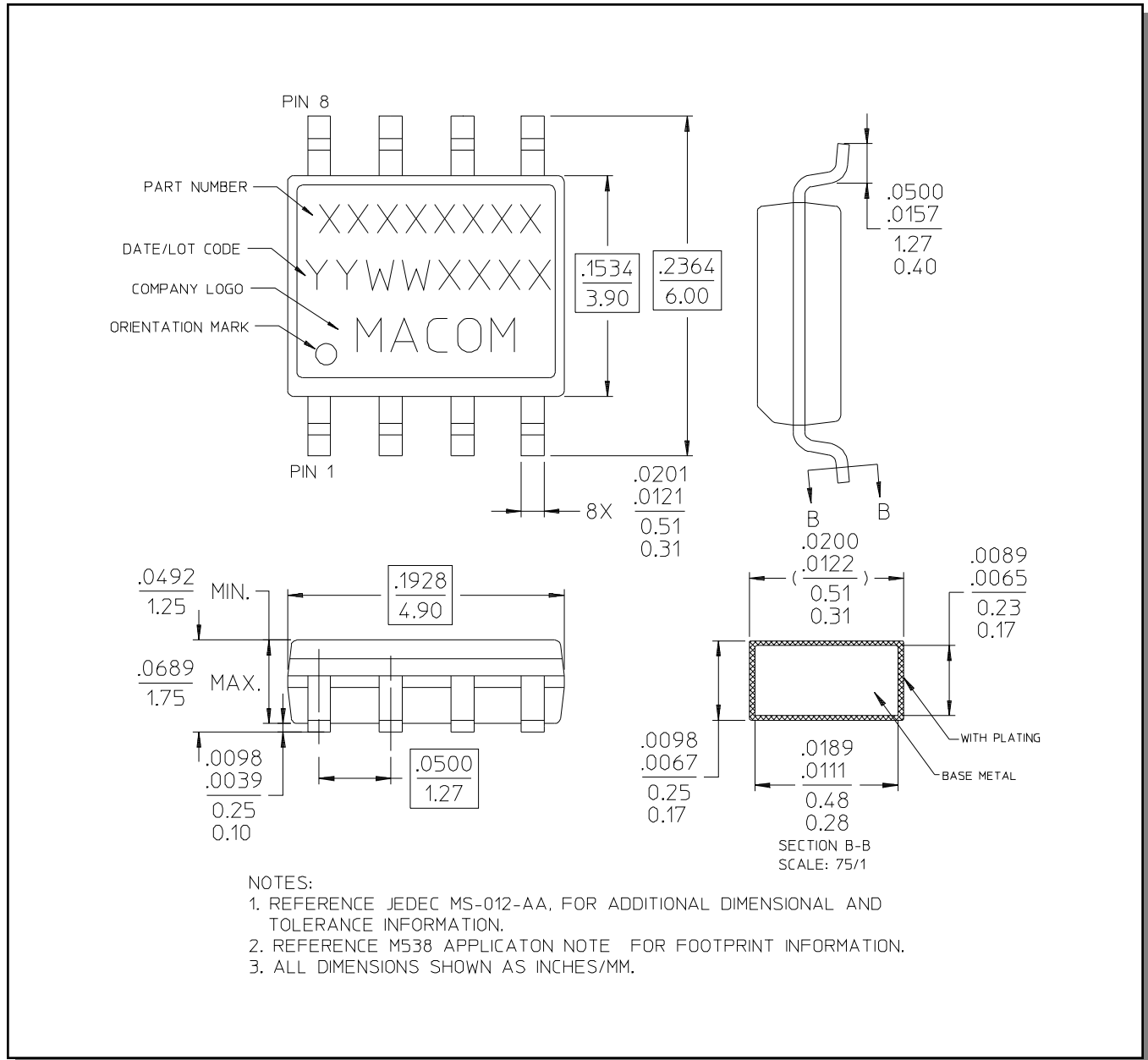


FL05-0001-G

Low Cost SMT High Pass Filter
800 – 3000 MHz

Rev. V2

SOIC-8[†]



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