

MFHP-00023GSM2

Passive Glass 2.9 GHz Surface Mount Highpass Filter

DEVICE OVERVIEW

General Description

The MFHP-00023GSM2 surface-mount highpass filter is an ideal solution for extremely small form factor, high rejection filtering. The MFHP-00023GSM2 features a 2.9GHz 3dBc passband and 17dB passband return loss. Its advanced glass substrate technology allows production of smaller filter constructions that replace larger form factor circuit board constructions. Tight fabrication ensures tighter unit-to-unit consistency than legacy filter technologies, supporting accurate simulation with the provided S2P data. The MFHP-00023GSM2 is offered in a 4.00 x 4.25 mm package.



[Download s-parameters here](#)

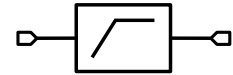
Features

- Low Passband Insertion Loss with Fast Roll-off
- 17 dB Return Loss
- High Stop Band Suppression

Applications

N/A

Functional Block Diagram



Part Ordering Options

Part Number	Description	Package	Green Status	Product Lifecycle	Export Classification
MFHP-00023GSM2	Passive Glass 2.9 GHz Surface Mount Highpass Filter	GSM2		Released	-
EVB-MFHP-00023G	EVB-MFHP-00023G	GSM		Released	-

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Revision History

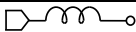
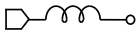
Revision Code	Revision Date	Comment
-	2025-12-10	Initial Release

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Port Configuration and Functions

Port Functions

Port	Function	Description	DC Equivalent Circuit
Pin 1	RF Input	Pin 1 is DC Open to GND	
Pin 2	RF Output	Pin 2 is DC Open to GND	

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Specifications

Absolute Maximum Ratings

Parameter	Maximum Rating	Unit
DC Current	2	A
Maximum Operating Temperature	100	°C
Maximum Storage Temperature	125	°C
Minimum Operating Temperature	-55	°C
Minimum Storage Temperature	-65	°C
RF Power Handling	5	W

Package Information

Parameter	Details	Rating
ESD	250 to < 500 Volts	HBM Class 1A
Dimensions	-	4.25 x 4.00 mm
Moisture Sensitivity Level	-	MSL 1

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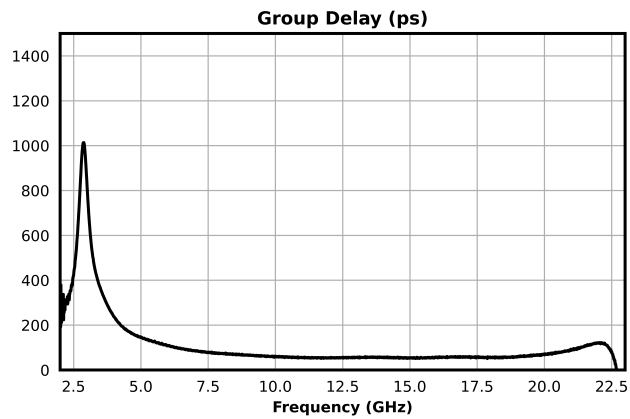
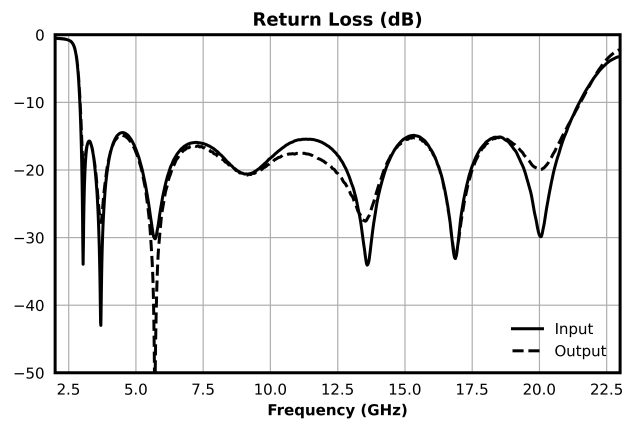
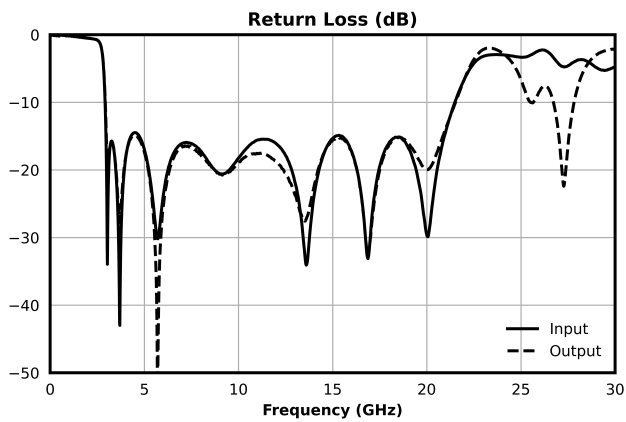
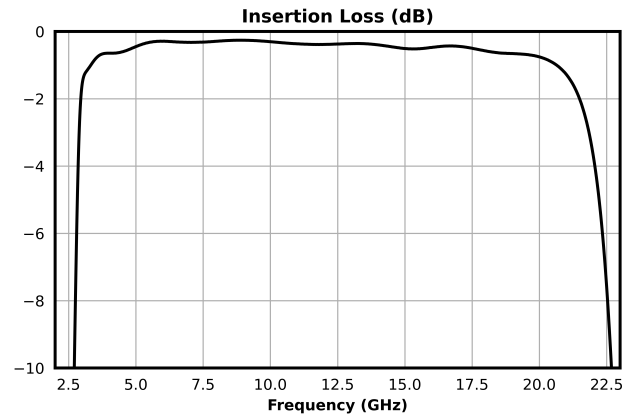
Electrical Specifications

Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
1 dBc Passband	Configuration A, Temp = 25°C	3.11	-	-	-	-	GHz
3 dBc Passband	Configuration A, Temp = 25°C	2.89	-	-	-	-	GHz
30 dBc Rejection Point	Configuration A, Temp = 25°C	2.33	-	-	-	-	GHz
Center Freq	Configuration A, Temp = 25°C	-	-	-	16.56	-	GHz
Insertion Loss @ fc	Configuration A, Temp = 25°C	-	-	-	1.6	-	dB
Passband Return Loss	Configuration A, Temp = 25°C	-	-	-	17	-	dB
Group Delay	Configuration A, Temp = 25°C	-	-	-	63	-	ps

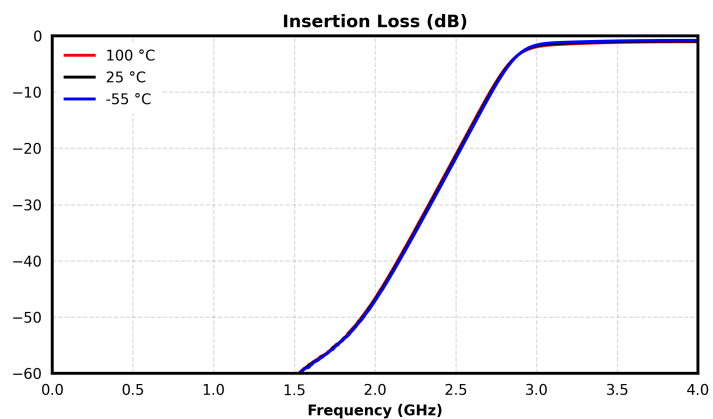
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Passive Glass 2.9 GHz Surface Mount Highpass Filter

Typical Performance Plot



Performance Over Temperature



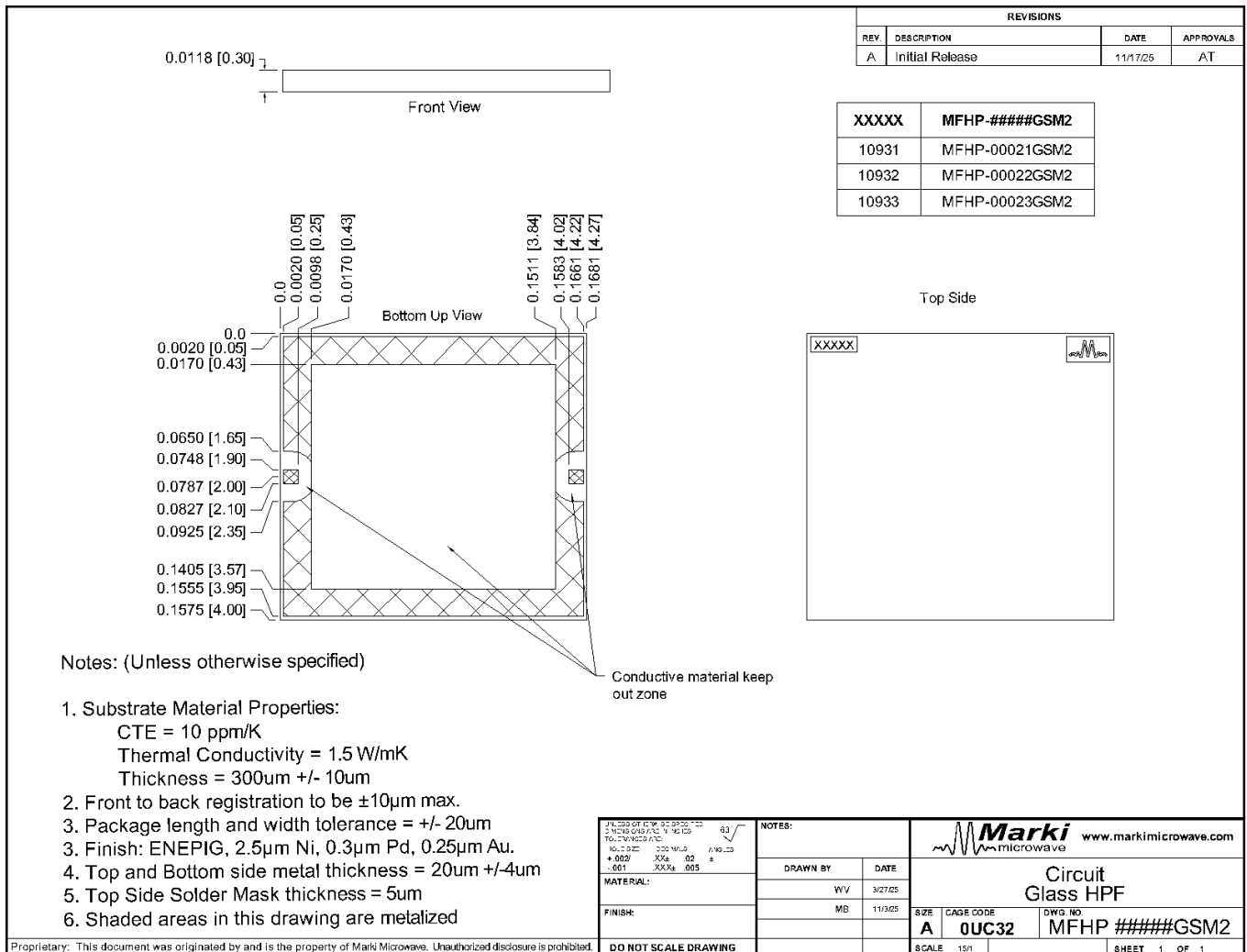
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Mechanical Data

Outline Drawing

Download : [Outline 2D Drawing](#)

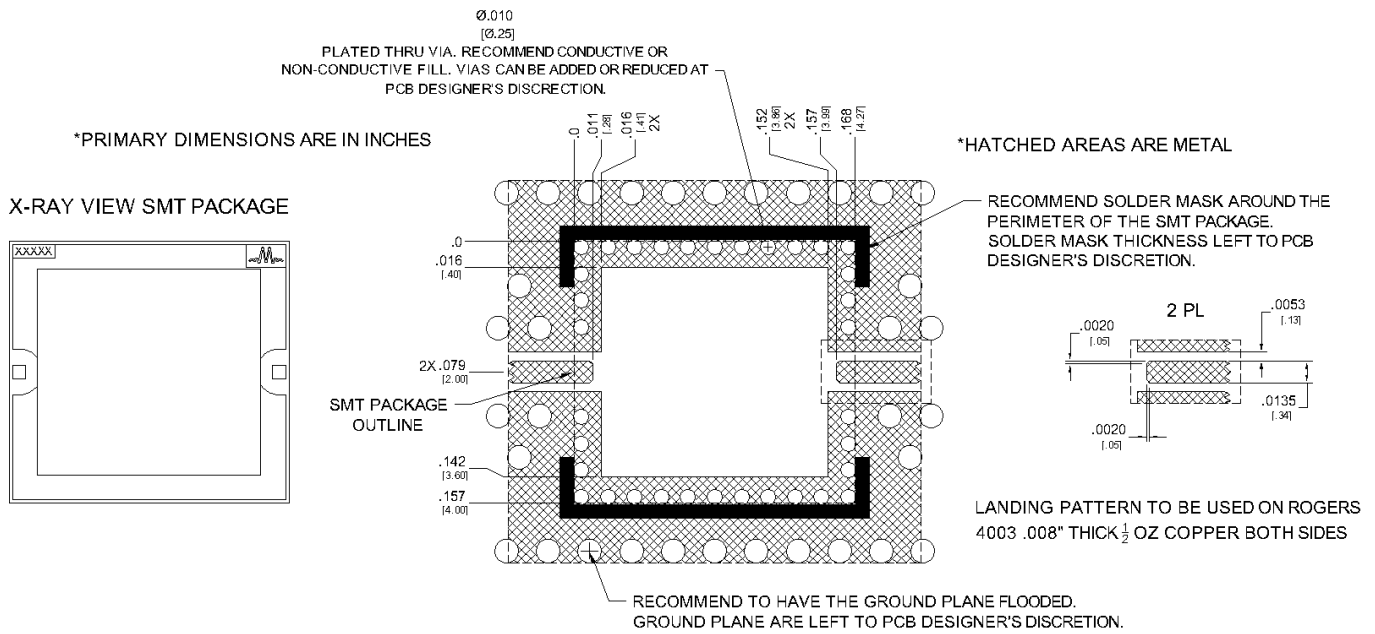


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Footprint Image

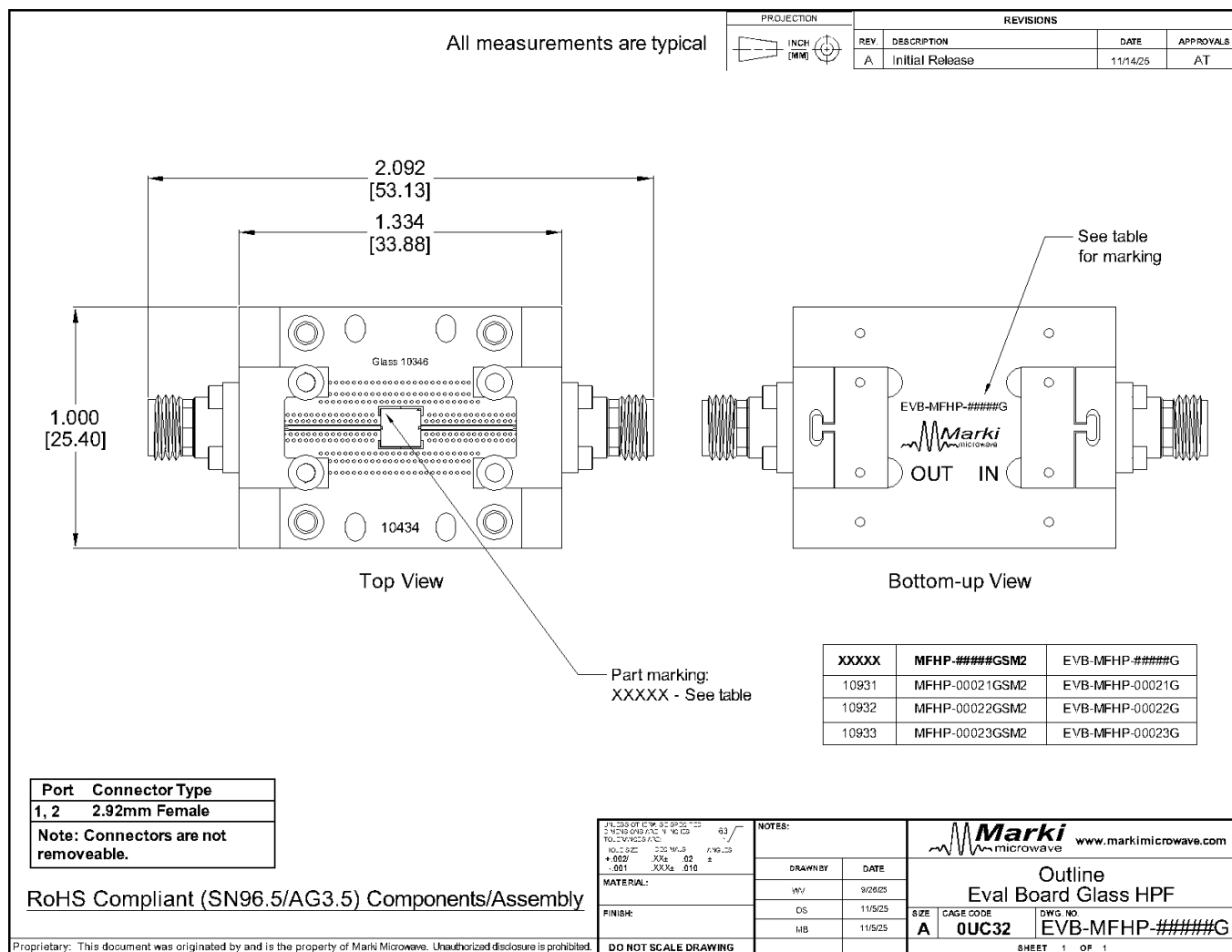
Download : [Footprint Drawing](#)



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Evaluation Board - Outline Drawing



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