

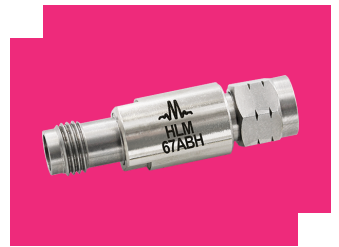
HLM-67ABH

DC - 67 GHz High Frequency Limiter

DEVICE OVERVIEW

General Description

The HLM-67ABH is a wide DC-67 GHz bandwidth GaAs Schottky diode signal limiter featuring high +27 dBm IP3 and high 1 W power handling. It offers low 1.35 dB typical insertion loss and excellent 19 dB typical return loss from DC through V band and has a typical 1 dB compression point of +8 dBm. Its high power handling makes it ideal for protecting sensitive components and for applications requiring high linearity.



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Features

- Insertion Loss, 1.2 dB @ 35 GHz Typical
- Power Handling, 1 W CW @ 2 GHz
- Flat Leakage, +7 to +14 dBm Typical
- P1dB, +8 dBm Typical

Applications

N/A

Functional Block Diagram



Part Ordering Options

Part Number	Description	Package	Connectors	Green Status	Product Lifecycle	Export Classification
HLM-67ABH	DC - 67 GHz High Frequency Limiter	BH	<u>Standard</u>	RoHS REACH	Released	EAR99

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Revision History

Revision Code	Revision Date	Comment
-	2026-02-24	Initial Release

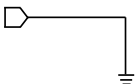
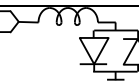
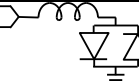
Port Configuration and Functions

Port Diagram

A top-down view of the HLM-67ABH's BH package outline drawing is shown below. The HLM-67ABH has the input and output ports given in Port Functions.



Port Functions

Port	Function	Connector Type	Description	DC Equivalent Circuit
GND	Ground	-	BH package ground provided through metal housing and outer coax conductor	
IN	Input	1.85F	IN is the RF input port and is diode connected for the BH package.	
OUT	Output	1.85M	OUT is the RF output port and is diode connected for the BH package.	

Specifications

Absolute Maximum Ratings

Parameter	Maximum Rating	Unit
Maximum Operating Temperature	100	°C
Maximum Storage Temperature	125	°C
Minimum Operating Temperature	-55	°C
Minimum Storage Temperature	-65	dB
RF Power Handling , Average	1	W

RF Power Handling represents an instantaneous, catastrophic limit and it isn't derated for frequency, temperature, pulse conditions, or unit to unit variation.

Package Information

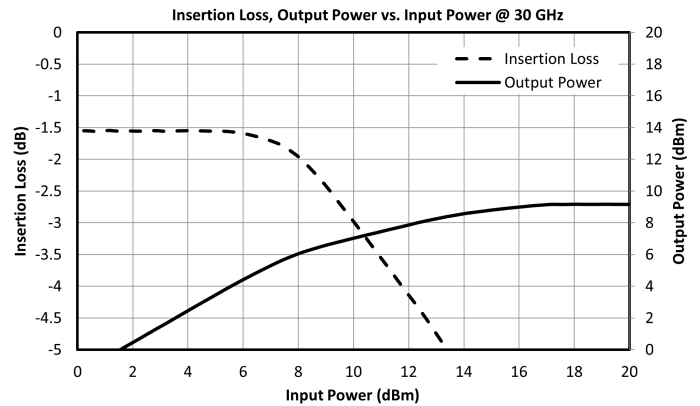
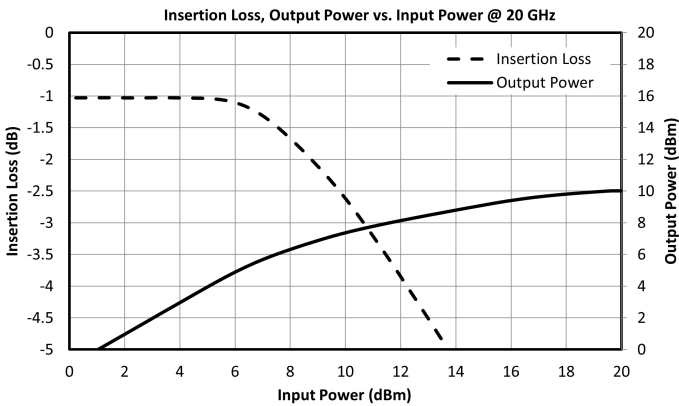
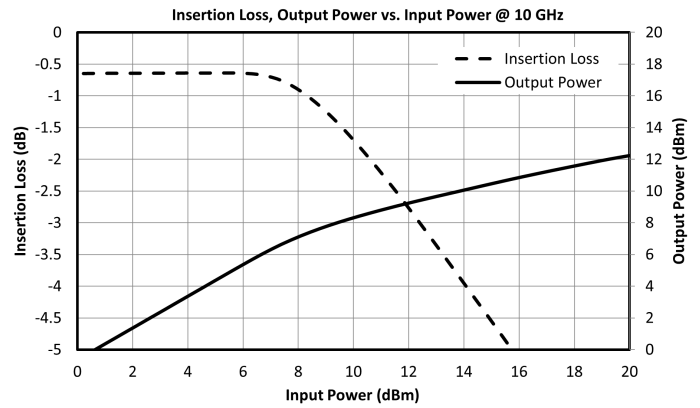
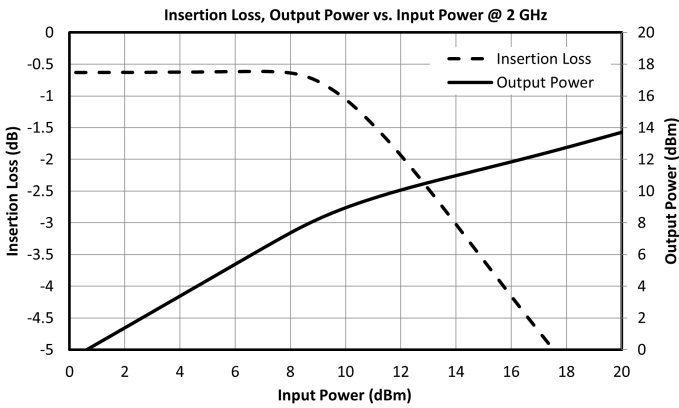
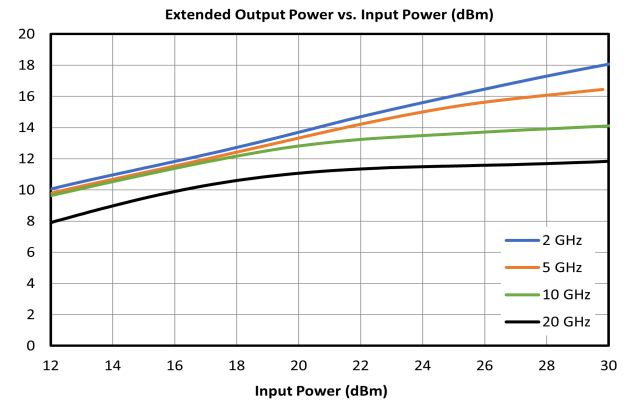
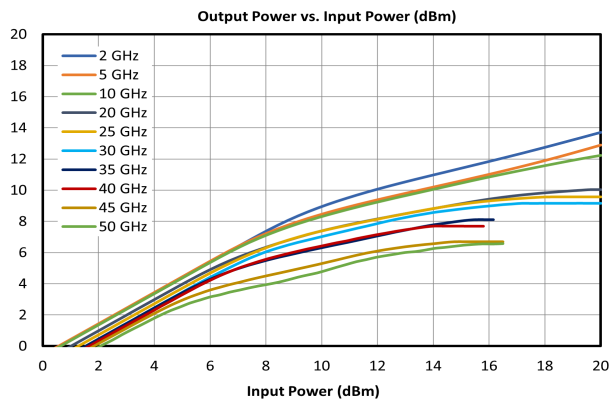
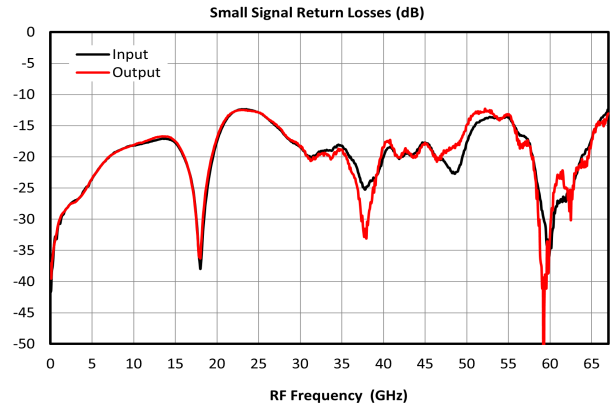
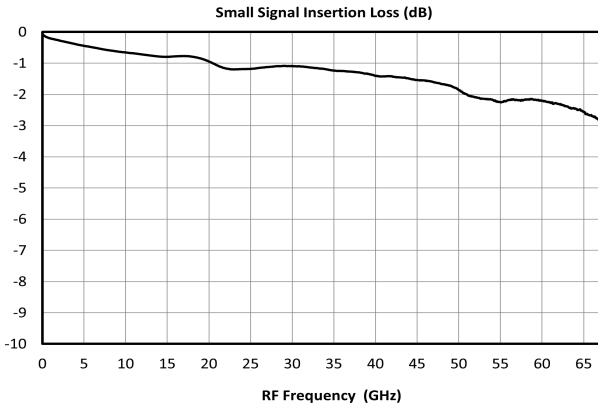
Parameter	Details	Rating
ESD	250 to < 500 Volts	HBM Class 1A
Weight	Package name: BH	10g
Dimensions	-	32.8 x 9.5 mm

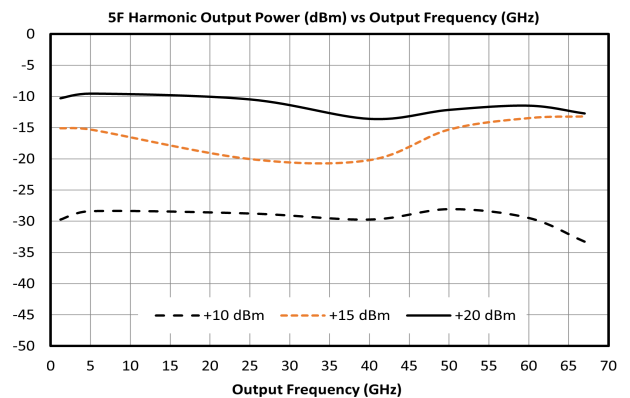
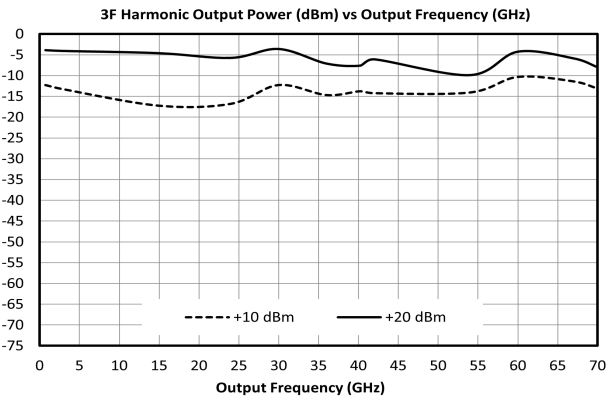
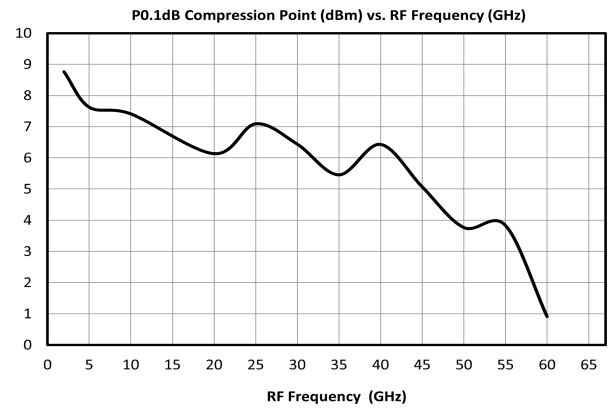
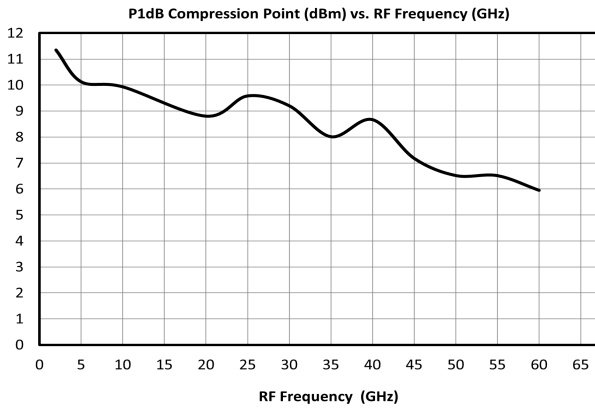
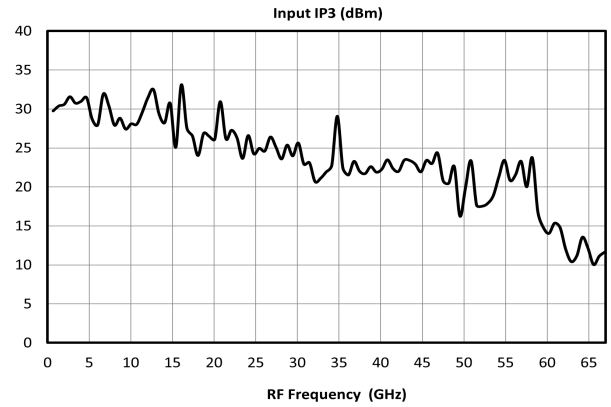
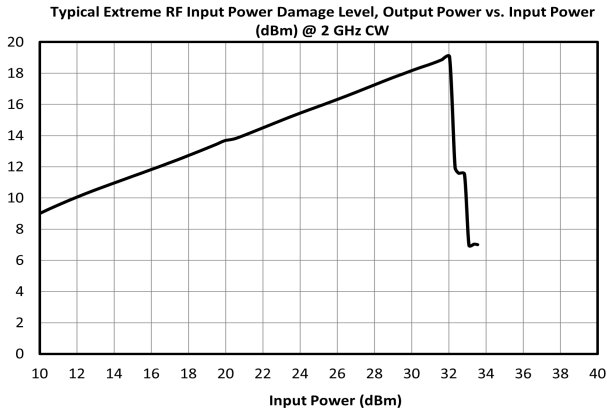
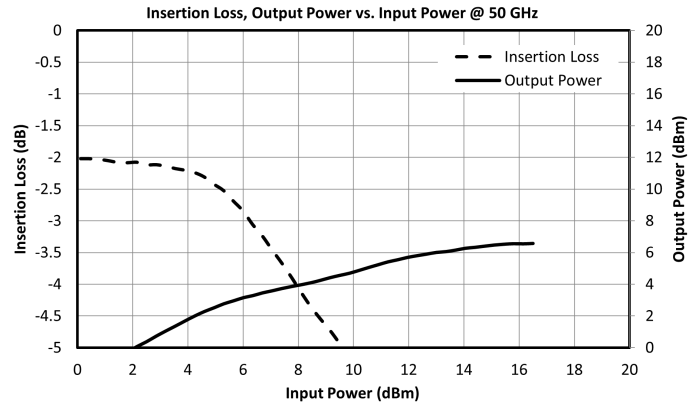
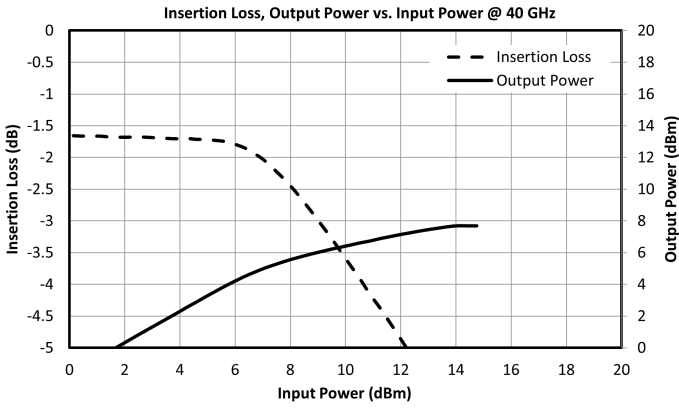
Electrical Specifications

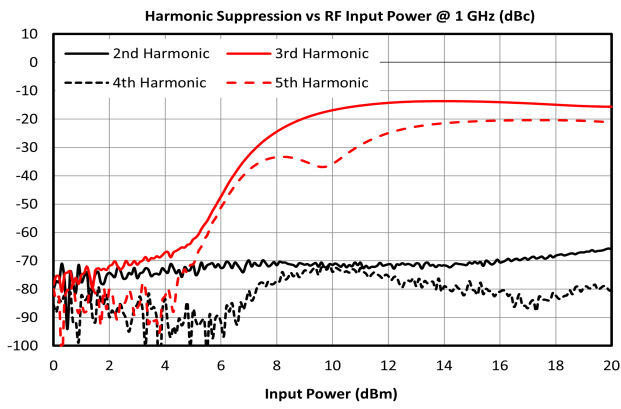
The electrical specifications apply at TA=+25°C in a 50Ω system. Typical data shown is for the connectorized BH-package limiter unless otherwise specified.

Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Insertion Loss	-	0	67	-	1.35	-	dB
Return Loss	-	0	67	-	19	-	dB
Flat Leakage	-	10	10	-	14	-	dBm
Flat Leakage	-	20	20	-	10.5	-	dBm
Flat Leakage	-	30	30	-	9.5	-	dBm
Flat Leakage	-	40	40	-	8	-	dBm
Flat Leakage	-	50	50	-	7	-	dBm
Input IP3	-5dBm Tone Powers at 1MHz Spacing	0	30	-	27	-	dBm
Input IP3	-5dBm Tone Powers at 1MHz Spacing	30	67	-	20	-	dBm

Typical Performance Plots







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