

## 100W Hermetically Sealed Wide Band Power Limiter 0.05GHz-6GHz



Note: Photo is for illustration purposes only. Please refer to outline drawing.

### Features

- Hermetically Sealed Wide Band Power Limiter
- Passive, High Isolation Limiter
- Low Insertion Loss
- High Power Handling: 100W

### Product Description

The RFPLT00M06G-H is a Hermetically Sealed wideband power limiter with a frequency range of 0.05 to 6GHz.

The max input power of the limiter is 100W. The typical insertion loss is 1.0 dB and Flat Leakage at > 30dBm input is 17dB.

The power limiter's input connector is N-female and output connector is N-male.

The operating temperature of this product is -40 to +85°C.

### Typical Applications

- Wireless Infrastructure
- Military and Aerospace Applications
- Test Instrumentation
- Radar Systems
- 5G Wireless Communications
- Microwave Radio Systems
- TR Modules
- Research and Development
- Cellular Base Stations

### Electrical Specifications (T<sub>A</sub>=+25°C)

Parameter	Min	Typ	Max	Min	Typ	Max	Units
Frequency Range	0.05		1	1		6	GHz
Incident Power, CW, 50Ω, 50 °C			30			30	W
Incident Power, Pulsed PW = 10μs, DC = 10%, 50Ω, 50 °C			100			100	W
Insertion Loss		0.6	1.0		1.5	2.0	dB
VSWR		1.5			2		: 1
Flat Leakage at PIN > 30 dBm		17			16.5		dBm
Peak Power Leakage		18			18		dBm
Weight	Net		0.1Max.				lbs.
	Including Heat Sink		0.4Max.				
Input / Output Connectors	SMA-Female(Input) - SMA-Female(Output)						
Package	Hermetically Sealed (Laser Welded)						

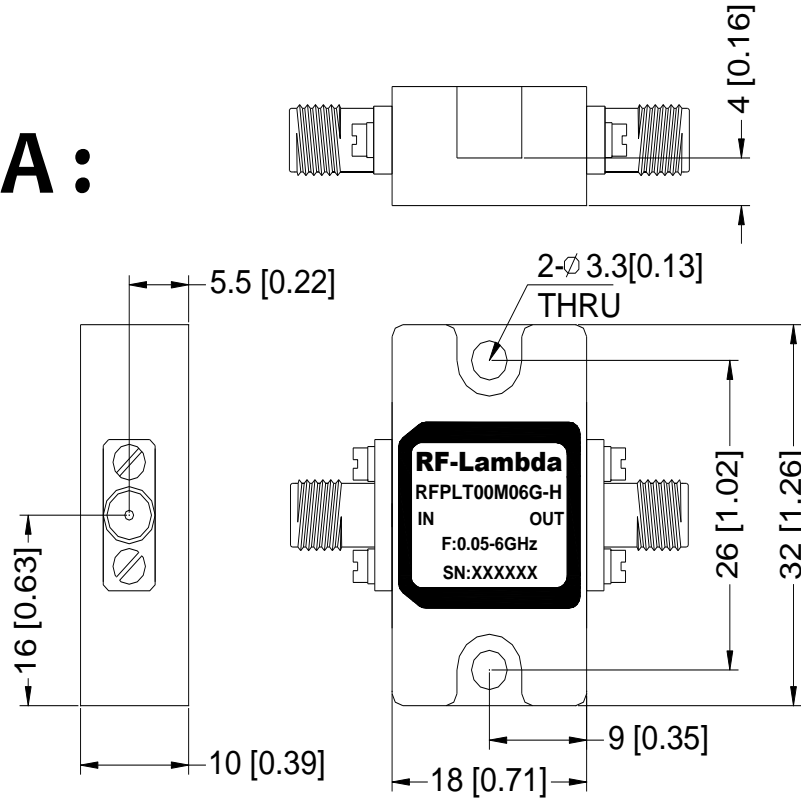
Note: DC Blocks Included.

**Environmental Specifications and Test Standards**

Parameter	Description
Operational Temperature	-40°C to +85°C (Case Temperature)
Storage Temperature	-50°C to +105°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
**Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +85°C for 72 Hours
Shock	1. Weight >20g, 50g half sine wave for 11ms, Speed variation 3.44m/s 2. Weight <=20g, 100g Half sine wave for 6ms, Speed variation 3.75m/s 3. Total 18 times (6 directions, 3 repetitions per direction).
Altitude	Standard: 30,000 Ft (Epoxy Sealed Controlled Environment) Optional: Hermetically Sealed (60,000 ft. 1.0 PSI min)
Hermetically Sealed (Optional)	MIL-STD-883 (For Hermetically Sealed Units)

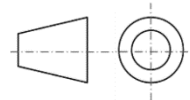
**Outline Drawing**

**Type A :**



Notes:

1. Package Material: Aluminum
2. Finish: Gold Plated
3. All dimensions are in millimeters [inches].
4. Tolerances  $\pm 0.15$  [0.006] unless otherwise specified.
5. Heat sink required during operation (sold separately). Matching heatsink is listed on our website. If customer would like to use their own cooling method, please make sure the limiter will operate under the specs that listed in page 2 of this datasheet.
6. Heatsink and fan is included, see drawing this page. Power Handling is 30W for 30 minutes if heatsink is not used.
7. Standard torque wrench must be used to secure RF connectors.

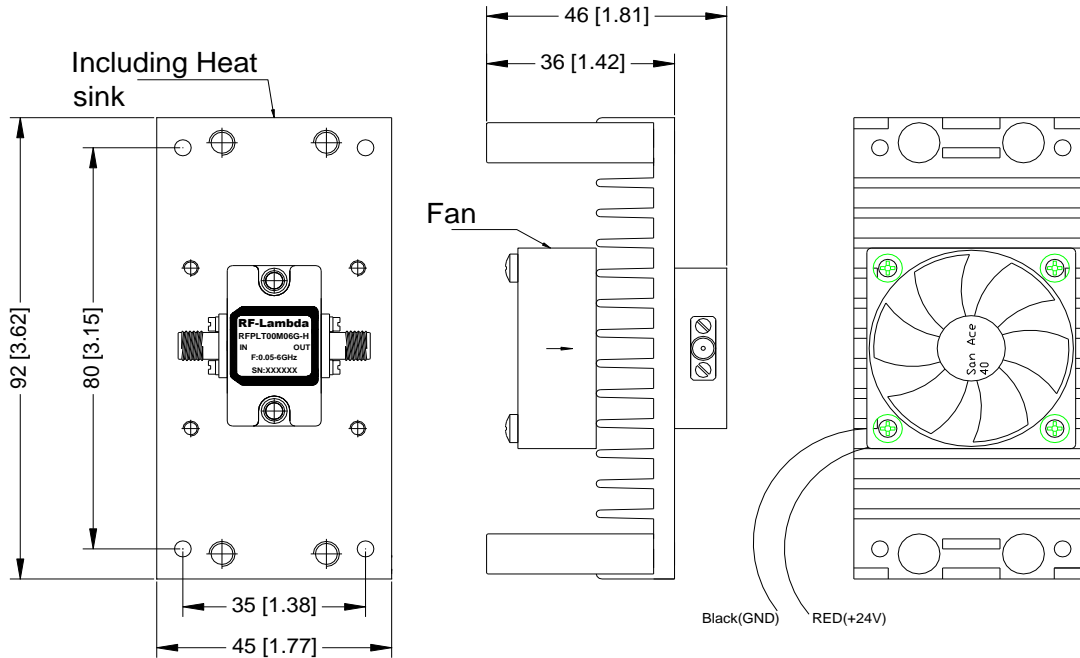


Additional Information

Documentation	Webpage
ESD Policy	<a href="https://rflambda.com/pdf/rflambda_esd_control.pdf">https://rflambda.com/pdf/rflambda_esd_control.pdf</a>
Heatsink Lookup Specifications	<a href="https://rflambda.com/search_heatsink.jsp">https://rflambda.com/search_heatsink.jsp</a>
Connector Torque Specifications	<a href="https://www.rflambda.com/pdf/Torque_Specifications.pdf">https://www.rflambda.com/pdf/Torque_Specifications.pdf</a>
Random Vibration Test Standard	<a href="https://www.rflambda.com/pdf/rflambda_random_vibration_MIL-STD-202G.pdf">https://www.rflambda.com/pdf/rflambda_random_vibration_MIL-STD-202G.pdf</a>

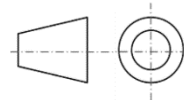
**Outline Drawing**

**Type B :**



**Notes:**

1. Package Material: Aluminum
2. Finish: Gold Plated
3. All dimensions are in millimeters [inches].
4. Tolerances  $\pm 0.15$  [0.006] unless otherwise specified.
5. Heat sink required during operation (sold separately). Matching heatsink is listed on our website. If customer would like to use their own cooling method, please make sure the limiter will operate under the specs that listed in page 2 of this datasheet.
6. Heatsink and Fan Included - Mandatory for full power operation, (Required for 100W Power Handling)
7. Standard torque wrench must be used to secure RF connectors.



**Additional Information**

Documentation	Webpage
ESD Policy	<a href="https://rflambda.com/pdf/rflambda_esd_control.pdf">https://rflambda.com/pdf/rflambda_esd_control.pdf</a>
Heatsink Lookup Specifications	<a href="https://rflambda.com/search_heatsink.jsp">https://rflambda.com/search_heatsink.jsp</a>
Connector Torque Specifications	<a href="https://www.rflambda.com/pdf/Torque_Specifications.pdf">https://www.rflambda.com/pdf/Torque_Specifications.pdf</a>
Random Vibration Test Standard	<a href="https://www.rflambda.com/pdf/rflambda_random_vibration_MIL-STD-202G.pdf">https://www.rflambda.com/pdf/rflambda_random_vibration_MIL-STD-202G.pdf</a>

**Ordering Information**

Part Number	Modification	Description
RFPLT00M06G-H	Input connector and Output connector SMA- Female	0.05GHz-6GHz Hermetically Sealed Power Limiter

**Important Notice**

The information contained herein is believed to be reliable. RF-Lambda makes no warranties regarding the information contained herein. RF-Lambda assumes no responsibility or liability whatsoever for any of the information contained herein. RF-Lambda assumes no responsibility or liability whatsoever for the use of the information contained herein. The information contained herein is provided "AS IS, WHERE IS" and with all faults, and the entire risk associated with such information is entirely with the user. All information contained herein is subject to change without notice. Customers should obtain and verify the latest relevant information before placing orders for RF-Lambda products. The information contained herein or any use of such information does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other intellectual property rights, whether with regard to such information itself or anything described by such information. RF-Lambda products are not warranted or authorized for use as critical components in medical, life-saving, or life sustaining applications, or other applications where a failure would reasonably be expected to cause severe personal injury or death.