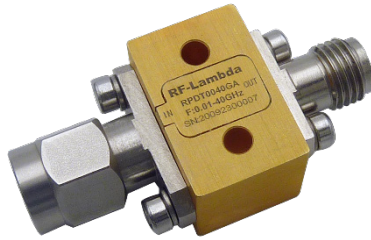


## Wide Band Power Detector 0.01GHz- 40GHz



### Product Description

The RPDT0040GA is a coaxial power detector with a frequency range of 0.01 to 40GHz.

The max input power of the detector is 23dBm. The max VSWR of 2:1.

The working temperature of this product is between - 40°C and + 85°C.

### Features

- Wide Band
- High Sensitivity
- Low VSWR

### 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	Units
Frequency Range	0.01		40	GHz
VSWR		1.5	2.0	: 1
Tss	-25			dBm
Sensitivity	0.5			mv/uw
Input Power			+23	dBm
Output Polarity		Negative(-)		
Weight		0.03 Max.		lbs.
Input / Output Connectors		2.92mm-Male(Input)-SMA-Female(Output)		
Package		Epoxy Sealed (Standard)		
		Hermetically Sealed (Optional)		

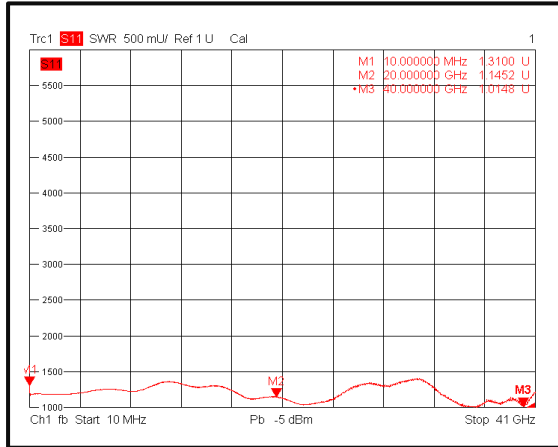
**Environmental Specifications and Test Standards**

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)

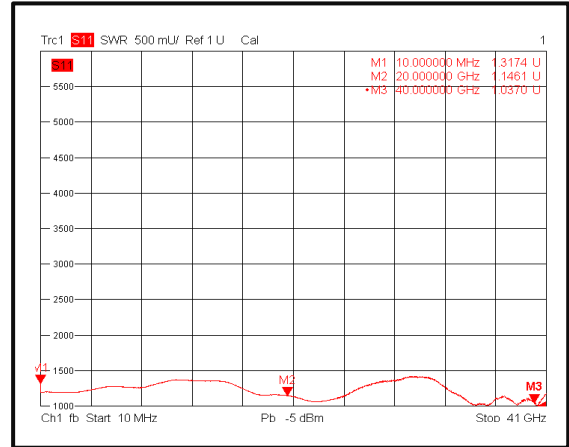
\*\*For vibration testing details please see additional information section.

**Typical Performance Plots**

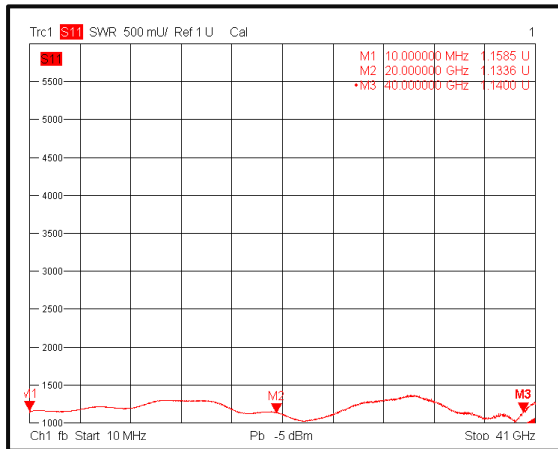
**VSWR @+25°C**



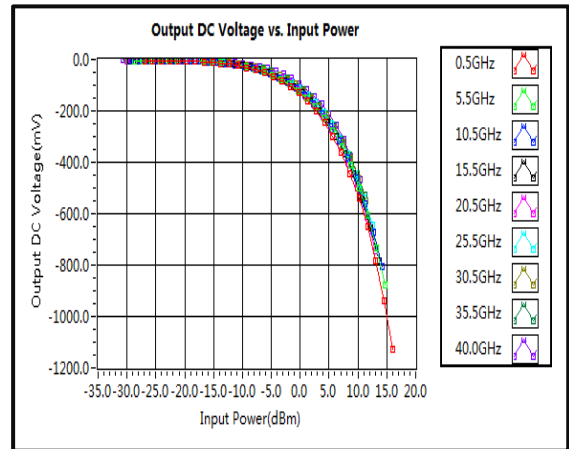
**VSWR @-40°C**



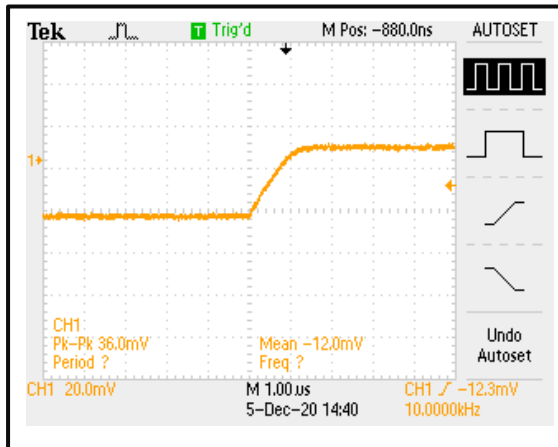
**VSWR @+85°C**



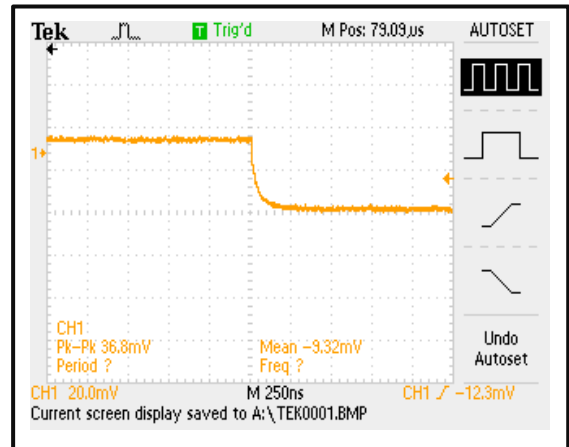
**Output DC Voltage vs. Input Power**



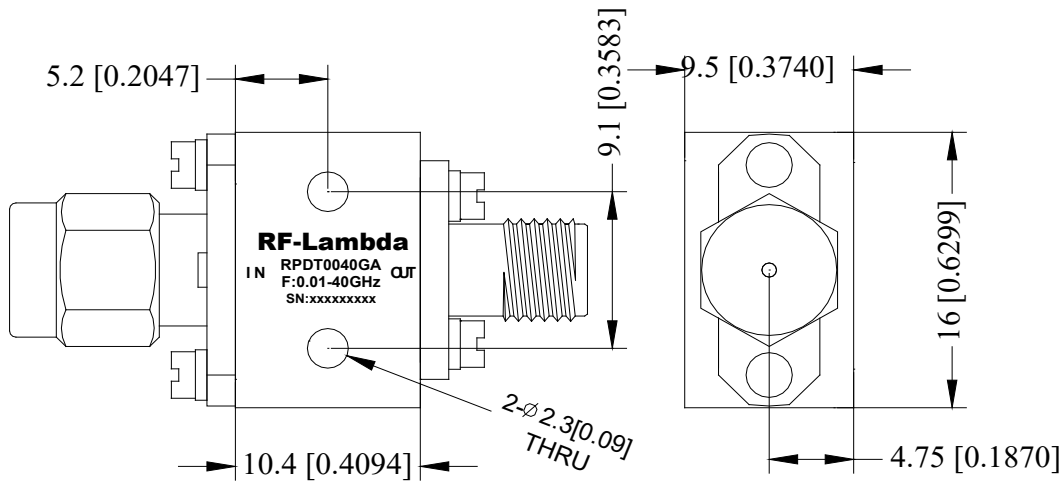
**Rise Time**



**Fall Time**

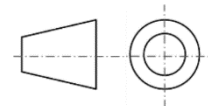


**Outline Drawing**



Notes:

1. Package Material: Aluminum
2. Finish: Gold
3. All dimensions are in millimeters [inches].
4. Tolerances  $\pm 0.1$  [0.004] unless otherwise specified.
5. 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>
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
RPDT0040GA	Input connector 2.92mm-Male and Output connector SMA-Female	0.01GHz-40GHz Power Detector

**Important Notice**

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