

High Power Coaxial Circulator 2.7GHz-2.9GHz



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

Product Description

RFLC-301-4N-2.8G is a high power coaxial circulator with a frequency range of 2.7 to 2.9GHz.

The circulator has a typical isolation of 20dB. The maximum insertion loss is 0.4dB. The circulator has good isolation performance.

The circulator input and output connectors are N Female.

Features

- High power handling up to 100W
- Wide band operation
- High isolation within operational band
- Low Insertion Loss
- Stable performance over temperature

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 ($T_A=+25^{\circ}\text{C}$)

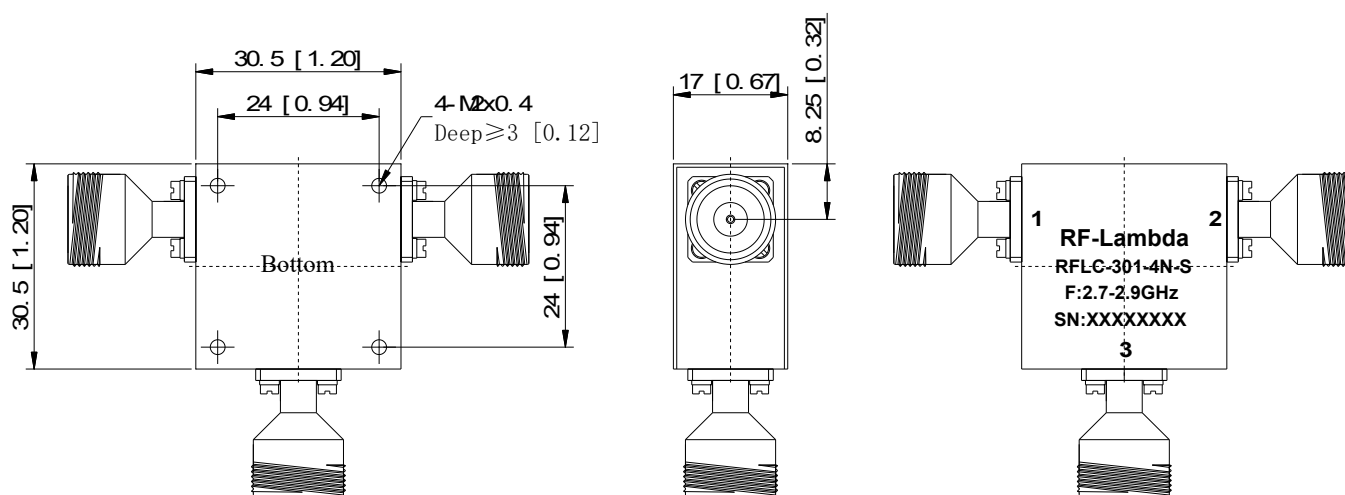
Parameter		Min.	Typ.	Max.	Units
Frequency Range			2.7 - 2.9		GHz
Insertion Loss			0.35	0.4	dB
Isolation		20	21		dB
VSWR			1.2	1.25	:1
Power Handling	Average	100			W
	Peak	With 1 kW peak power (10 us; 10% duty cycle)			
Rotation		Clockwise			
Input / Output Connectors		N-Female(Input) – N-Female(Output)			
Weight		/			lbs
Impedance		50			Ω

Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-10°C to +70°C (Case Temperature)
Storage Temperature	-40°C to +85°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
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.

Outline Drawing



Notes:

1. Package Material: Aluminum Alloy
2. Finish: Nickel Plated
3. All dimensions are in millimeters [inches].
4. Outline Tolerances ± 0.5 [0.02], Mounting Hole Tolerances ± 0.2 [0.008] unless otherwise specified.

Additional Information

Documentation

ESD Policy

https://rflambda.com/pdf/rflambda_esd_control.pdf

Connector Torque Specifications

https://www.rflambda.com/pdf/Torque_Specifications.pdf

Random Vibration Test Standard

https://www.rflambda.com/pdf/rflambda_random_vibration_MIL-STD-202G.pdf

Webpage

Ordering Information

Part Number	Modification	Description
RFLC-301-4N-2.8G	Input Connector N-Female and Output Connector N-Female	2.7GHz-2.9GHz Coaxial Circulator

Important Notice

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