

Dual Junction Circulator 200MHz-300MHz 20% BW



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

Product Description

RFLC-116-2 is a dual junction circulator with a 20% BW within a frequency range of 200 to 300MHz.

The circulator has an isolation of 40dB, and an insertion loss is 1.6dB.

The operating temperature of this product is within 0 to +70°C

Features

- High power handling up to 30W
- Wide band operation
- High isolation within operational band
- Low Insertion Loss

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

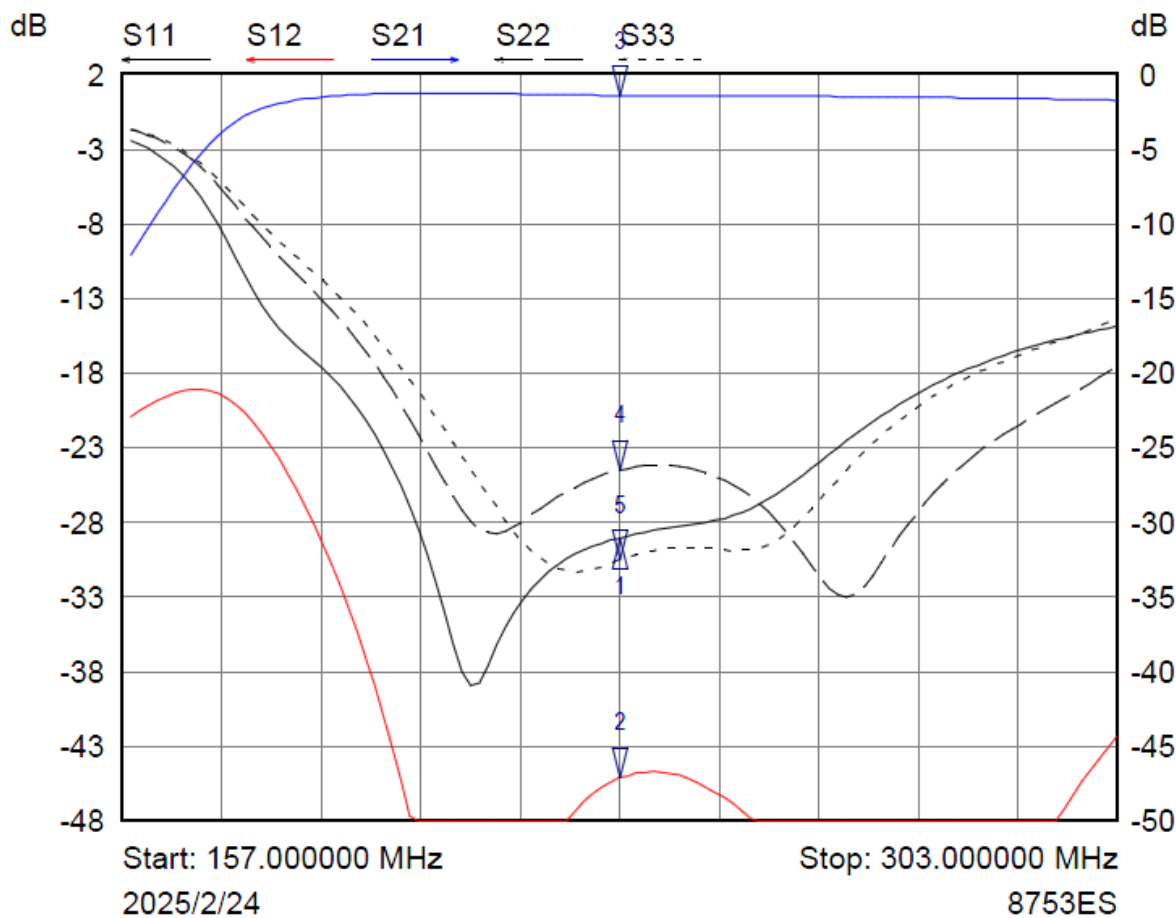
Parameter		Min.	Typ.	Max.	Units
Frequency Range			200-300 with 20% BW		MHz
Bandwidth			20% 207-235MHz.		MHz
Insertion Loss	1-2			1.6	dB
	2-3			1.6	
Isolation	2-1	40			dB
VSWR				1.3	:1
Power Handling				30	W
Rotation			Clockwise (Standard) Count Clockwise (upon request)		
Input / Output Connectors			N-Female		

Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	0°C to +70°C (Case Temperature)
Storage Temperature	-40°C to +100°C
Thermal Shock	0°C → +70°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)

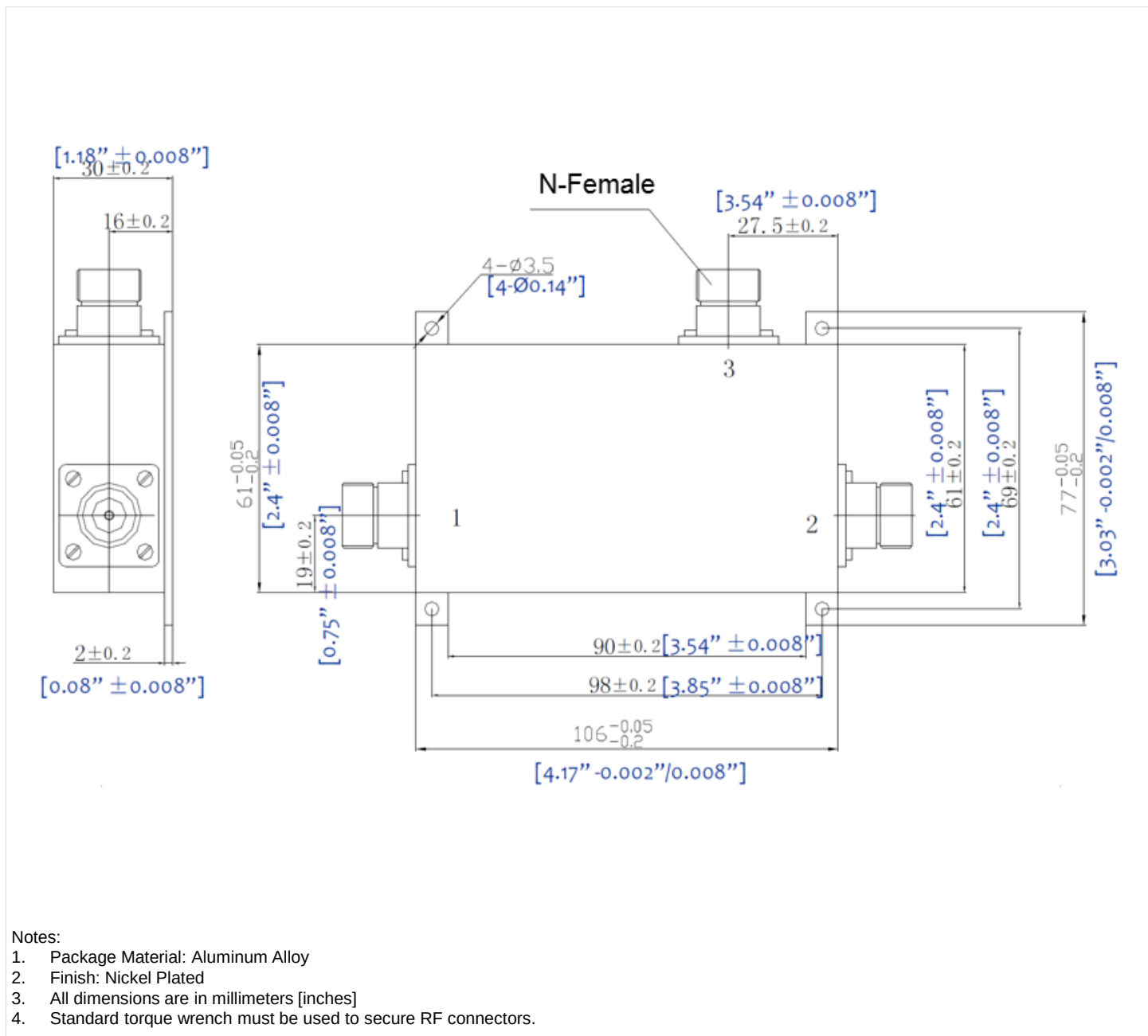
*For vibration testing details please see additional information section.

Typical Performance Plots



Mkr	Trace	X-Axis	Value	Notes
1 ▽	S11	230.000000 MHz	-29.0279 dB	
2 ▽	S12	230.000000 MHz	-45.0564 dB	
3 ▽	S21	230.000000 MHz	-1.3930 dB	
4 ▽	S22	230.000000 MHz	-24.4951 dB	
5 ▽	S33	230.000000 MHz	-30.5056 dB	

Outline Drawing



Additional Information

Documentation	Webpage
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

Ordering Information

Part Number	Modification	Description
RFLC-116-2	Standard	200MHz-300MHz Dual Junction Circulator

Important Notice

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