

Electronics

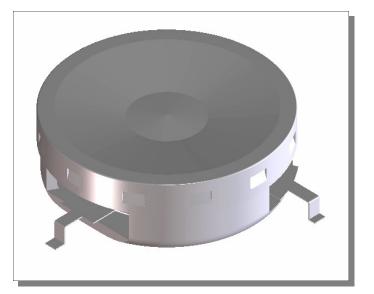
Single Junction Gull Wing Circulator 860 MHz—960 MHz

Features

- Designed for RFID market
- 22dB Isolation typical
- 0.25dB Insertion Loss
- Low cost package
- 260°C Reflow Compatible
- RoHS* Compliant Version of the MAFRIN0370

Description

This circulator is designed specifically for RFID applications and features high reliability performance at a low cost. It is in a low cost package ideally suited for high volume manufacturing. M/A Com is one of the largest suppliers of isolator and circulators in the world.



RoHS

Compliant

Electrical Specifications: $T_A = +25^{\circ}C$, $Z_0 = 50$ Ohms

Parameter	Test Conditions	Units	Min	Тур	Max
Frequency Range	Over T _{op} ¹	MHz	860		960
Insertion Loss	860 MHz—960 MHz, over T _{op} ¹	dB		0.21	0.40
Isolation	860 MHz—960 MHz, over T _{op} ¹	dB	18.0	29.0	
Return Loss	860 MHz—960 MHz, all ports, over T _{op} ¹	dB	18.0	28.0	
Circulation	Over T _{op} ¹			CW	

1. See "Absolute Maximum Ratings" for Top.

Absolute Maximum Ratings

Parameter	Absolute Maximum		
Forward Power	100 Watts		
Operating Temperature	-10°C to +85°C		
Storage Temperature	-40°C to +100°C		

1. Operation of this device above any one of these parameters may cause permanent damage.

* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

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- North America Tel: 800.366.2266 / Fax: 978.366.2266
- Europe Tel: 44.1908.574.200 / Fax: 44.1908.574.300
- Asia/Pacific Tel: 81.44.844.8296 / Fax: 81.44.844.8298

Visit www.macom.com for additional data sheets and product information.



MAFRIN0494 V1

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Ordering Information

Part Number	Packaging
MAFRIN0494	Tape and Reel

RoHS Compliant



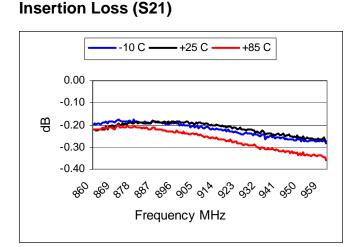
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Environmental Specifications

Devices are designed to function after exposure to the shock, vibration, thermal shock and moisture conditions typically encountered in base station and other infrastructure environments.

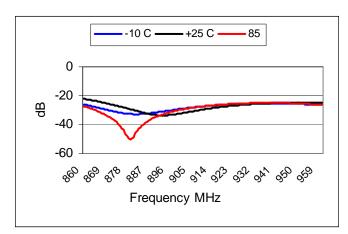
S-Parameters

S-parameters are available on the M/A Com website at: S-Parameters

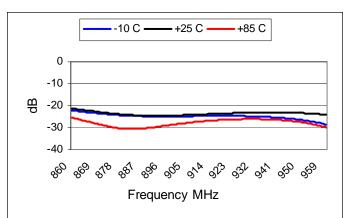


Return Loss (S11)

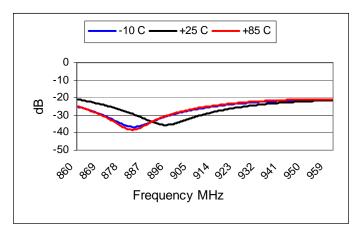
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Isolation (S12)



Return Loss (S22)



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Recommended PCB Layout





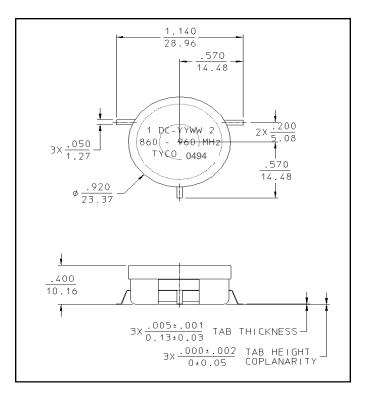
.91 22.99 45 3X R .44 3× R .29 .075 1 91 6X E) ant ŧ .17 4.32 2X 2× 15 .490 2X 1205 2X 45 RECOMMENDED SOLDER FOOTPRINT Notes; Circulator is processed w/SN96 Recommended solder for attachment : SN62 Use multiple plated thru holes in solder area under housina.

1. Dimensions in mm.

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- 2. Tolerances: \pm 0.2 mm unless otherwise noted.
- 3. Use multiple plated thru holes in ground area under the housing.

Outline Drawing



- 1. Dimensions in mm.
- 2. Tolerances: ± 0.3 mm unless otherwise noted.
- 3. Housing: Cold Rolled Steel with Sn 100% plating.
- 4. Cover: CRS with Sn 100% plating.
- 5. Leads: Copper.

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