



Surface Mount Robust Lead Circulator 902 MHz—928 MHz

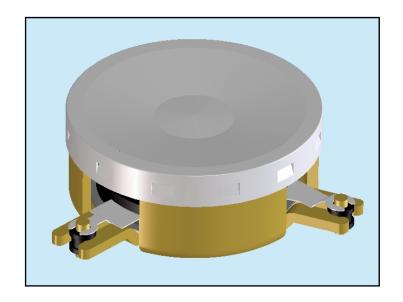
MAFRIN0332 Version 2

Features

- Designed for RFID market
- 22dB Isolation typical
- 0.25dB Insertion Loss
- Low cost package

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.



Electrical Specifications $T_A = +25$ °C, $Z_0 = 50$ Ohms

| Parameter | Test Conditions | Units | Min | Тур | Max |
|-----------------|---|-------|------|------|------|
| Frequency Range | Over T _{op} ¹ | MHz | 902 | | 928 |
| Insertion Loss | 902 MHz—928 MHz, over T _{op} ¹ | dB | | 0.21 | 0.35 |
| Isolation | 902 MHz—928 MHz, over T _{op} ¹ | dB | 22.0 | 29.0 | |
| Return Loss | 902 MHz—928 MHz, all ports, over T _{op} ¹ | dB | 20.0 | 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.

information.

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Ordering Information

| Part Number | Packaging |
|-------------|---------------|
| MAFRIN0332 | Tape and Reel |

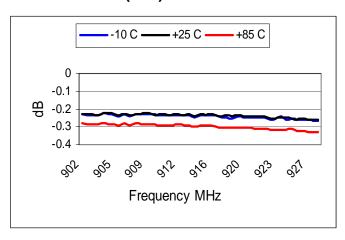
Environmental Specifications

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.

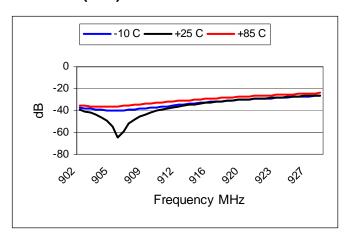
S-Parameters

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

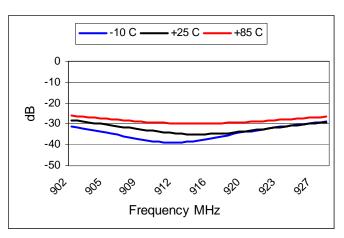
Insertion Loss (S21)



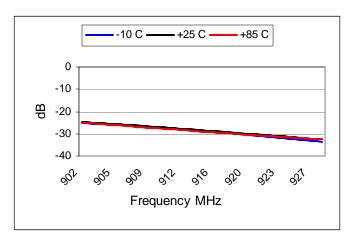
Isolation (S12)



Return Loss (S11)



Return Loss (S22)



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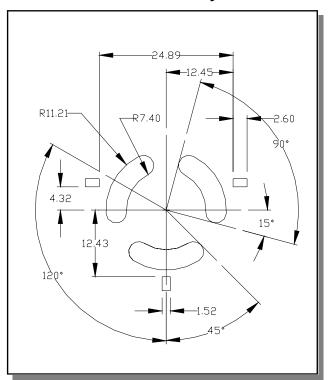




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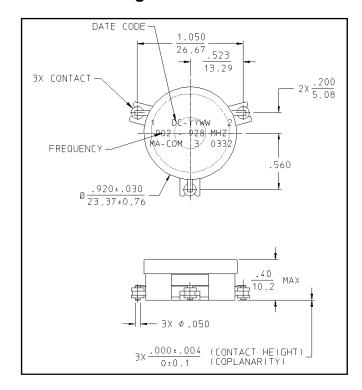
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Recommended PCB Layout



- 1. Dimensions in mm.
- 2. Tolerances: ± 0.2 mm unless otherwise noted.
- 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 SnPb 90/10 plating.
- 4. Cover: CRS with SnPb 90/10 plating.
- 5. Leads: Copper.

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