

MAFRIN0541: 1930-1990 MHz Single Junction Drop In Isolator

Applications

- Wireless Infrastructure
- Power amplifiers



Features

- Operating frequency range: 1930 to 1990 MHz
- BeO free
- RoHS compliant

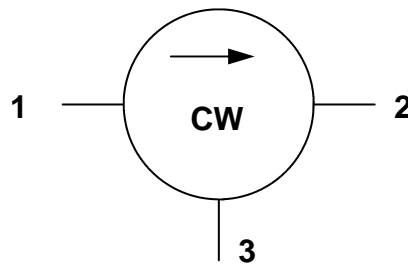


Figure 1. Block Diagram

Table 1. Absolute Maximum Ratings

| Parameter | Symbol | Test Condition | Min | Max | Units |
|-----------------------------|------------|----------------|-----|------|-------|
| Average power | P_{AVG} | | | 200 | W |
| Peak power | P_{PK} | | | 1000 | W |
| Reverse power | P_{REV} | | | 100 | W |
| Operating temperature range | T_{OP} | | -30 | +85 | °C |
| Storage temperature range | T_{STOR} | | -55 | +125 | °C |

Note: Exceeding any of the limits listed here may result in permanent damage to the device or may reduce device reliability.

Table 2. Electrical Specifications (Note 1)

| Parameter | Symbol | Test Condition | Min | Typical | Max | Units |
|-----------------|--------|--------------------------------|------|---------|------|----------|
| Frequency range | f | | 1930 | | 1990 | MHz |
| Impedance | | | | 50 | | Ω |
| Insertion loss | IL | | | | 0.25 | dB |
| Isolation | ISO | -10°C to +85°C | 20 | | | dB |
| Isolation | ISO | -30°C to -10°C | 18 | | | dB |
| Return loss | RL | -10°C to +85°C | 21 | | | dB |
| Isolation | ISO | -30°C to -10°C | 19 | | | dB |
| Third order IMD | IMD | 2 x 30W CW tones, 5MHz spacing | | 75 | | dBc |

Note 1: Performance is guaranteed under the conditions listed in this table and over the operating temperature range.

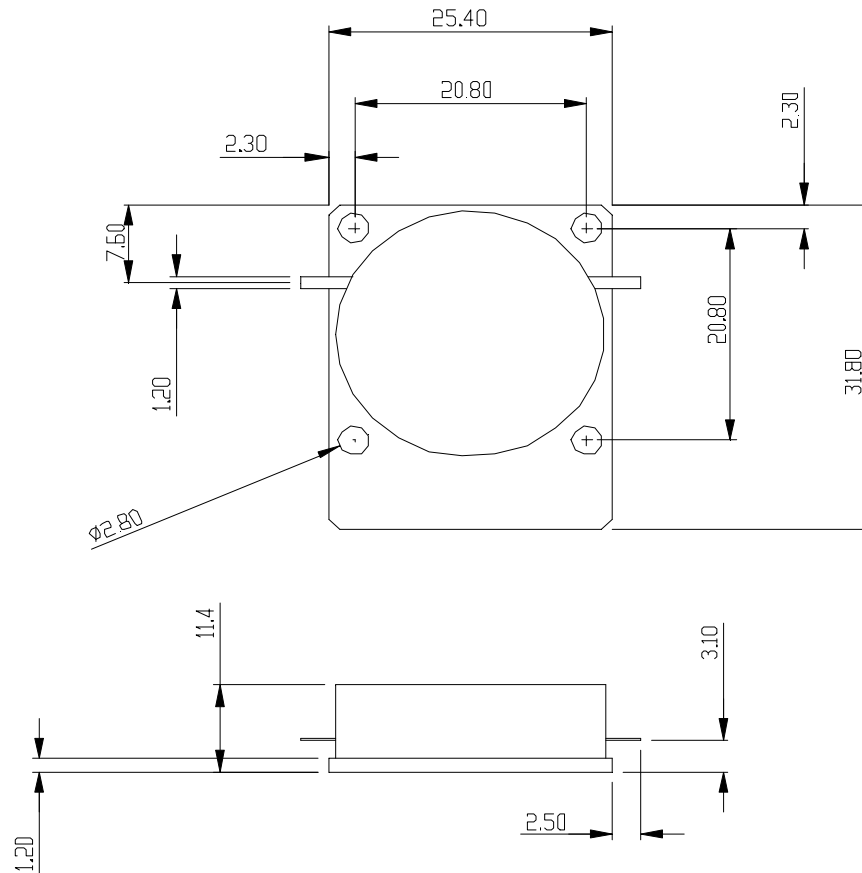
Table 3. Plating Specification

| Section | Base Material | Plating |
|---------|---------------|---------|
| Leads | Copper | Silver |
| Housing | Steel | Silver |

Table 4. Ordering Information

| Manufacturing Part Number | Evaluation Board Part Number |
|---------------------------|------------------------------|
| MAFRIN-0541 | TFX-00037-31 |

SPECIFICATION SHEET • MAFRIN0541



All dimensions in millimeters.

Tolerance: $\pm 0.2\text{mm}$ unless otherwise specified.

Lead thickness is 0.12mm.

Model number, lot code and port designation printed on top side of device.

Figure 2. Package Dimensions

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