

### 1. Scope

This specification applies to DVRF00014, RF Isolator.  
Document revision: B

### 2. Product Description and Identification (Part Number)

- 1) Description: Isolator
- 2) Product Identification (Part Number): DVRF00014
- 3) Direction: Clockwise, see Fig 2-1.

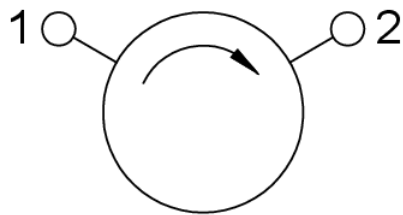


Fig. 2-1

### 3. Electrical Characteristics

Parameter	Test Conditions	Min	Typ	Max	Units
Frequency range		925		960	MHz
Operating temperature range		-40		+120	°C
Storage temperature range		-65		+155	°C
Average Power				200	W
Peak Power				1600	W
Reverse Power				70	W
Impedance			50		Ω
Input Impedance, Real		43	50	55.5	Ω
Input Impedance, Imaginary		-5.0j		4.5j	jΩ
Insertion Loss				0.20	dB
Isolation	0°C to +120°C	26			dB
Isolation	-40°C to 0°C	24			dB

Isolation	845MHz – 1040MHz	10			dB
Return Loss	0°C to +120°C	25			dB
Return Loss	-40°C to 0°C	22			dB
Intermodulation Distortion	2 x 65W CW tones, 1 MHz spacing	70			dBc
Group Delay	845MHz – 1040MHz			2.0	ns
Group Delay Variation	925MHz – 960MHz			0.5	ns
Group Delay Variation	845MHz – 1040MHz			2.0	ns
Resonance Frequency	Must be outside this frequency range	805		1070	dB
Harmonic Attenuation, 2nd		10			dB
Harmonic Attenuation, 3rd		5			dB

- a) Electrical Characteristics apply over the operating temperature range unless otherwise specified.
- b) The power rating and reliability of the device will not degrade with an operating temperature of up to +130°C. Exceeding any of the other limits listed here may result in permanent damage to the device or may reduce device reliability.
- c) Performance will not degrade by > 10% (Insertion loss >20%) with an operating temperature of up to 130°C.

4. Shape and Dimensions

- 1) Dimensions see Fig 4-1.
- 2) All dimensions are in mm.
- 3) Tolerance is  $\pm 0.20\text{mm}$  unless otherwise indicated.
- 4) Coplanarity specification: 0.10mm maximum.
- 5) Pins and housing are silver (Ag) plated.
- 6) This device is RoHS compliant.

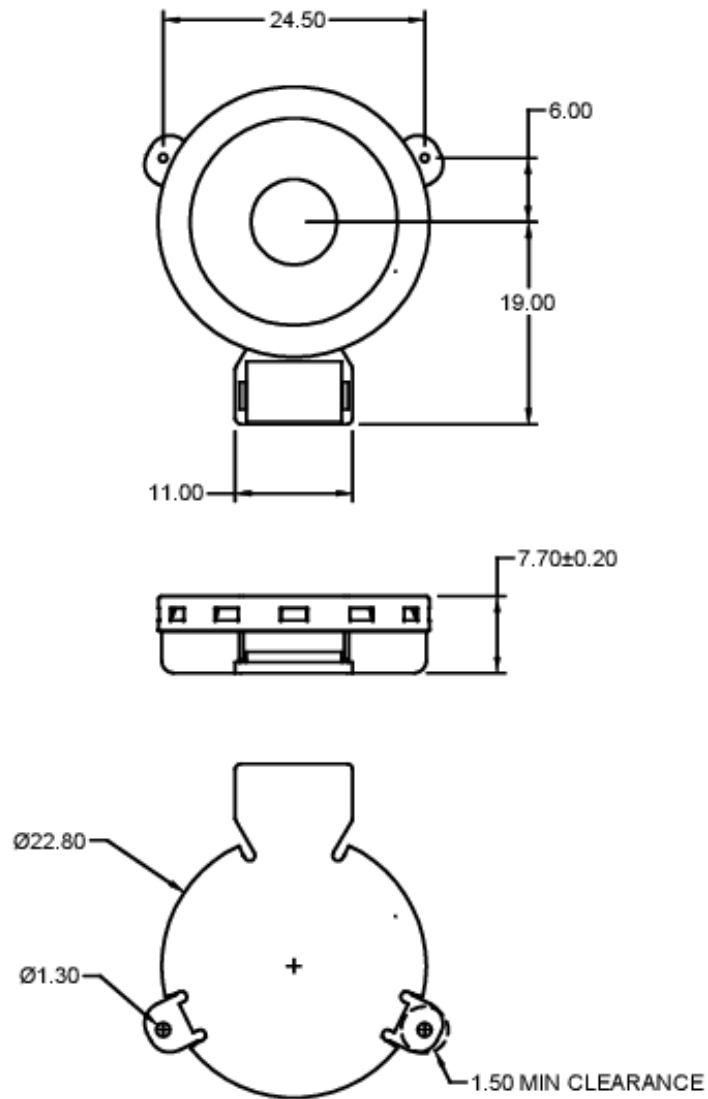


Fig. 4-1

## 5. Packaging

- 1) Devices are packed in Tape & Reel as per EIA481.
- 2) Reel: Standard 13" reel.
- 3) Quantity per reel: 200 devices.

## 6. Recommended Soldering Technologies

### 6.1 Re-flowing Profile

- △ Preheat condition: 150 ~200°C/60~120sec.
- △ Allowed time above 217°C: 60~90sec.
- △ Max temp: 260°C
- △ Max time at max temp: 10sec.
- △ Solder paste: Sn/3.0Ag/0.5Cu
- △ Allowed Reflow time: 2x max

[Note: The reflow profile in the above table is only for qualification and is not meant to specify board assembly profiles. Actual board assembly profiles must be based on the customer's specific board design, solder paste and process, and should not exceed the parameters as the Reflow profile shows.]

