

SKYFR-000932: 1880—2025 MHz Single Junction Robust Lead Circulator

Applications

- Wireless infrastructure
- Power amplifiers



Features

- Small surface mount package
- Operating frequency range: 1880 to 2025 MHz
- BeO free
- RoHS compliant
- Tape & Reel

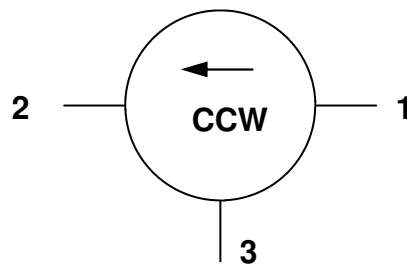
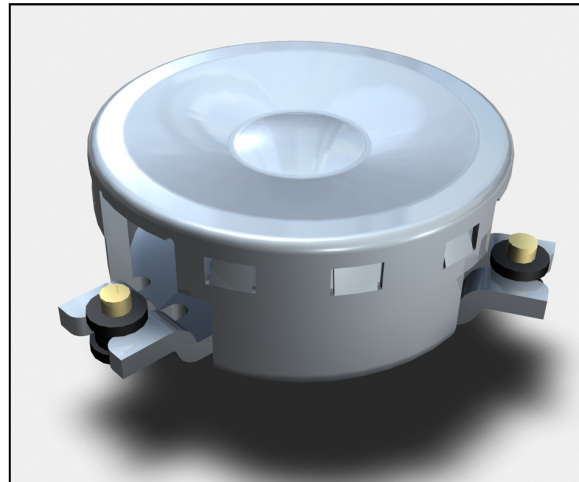


Figure 1. Block Diagram

Table 1. Absolute Maximum Ratings

Parameter	Symbol	Test Condition	Min	Max	Units
Average power	P_{AVG}			80	W
Peak power	P_{PK}			500	W
Operating temperature range	T_{OP}		-40	+105	°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		1880		2025	MHz
Impedance				50		Ω
Input impedance, real		Reference plane is at bottom of input pin	45	50	55	Ω
Input impedance, imaginary		Reference plane is at bottom of input pin	-j3		+7j	Ω
Insertion loss	IL				0.30	dB
Insertion loss	IL	1850MHz to 2055MHz			0.35	dB
Isolation	ISO		20			dB
Isolation	ISO	1850MHz to 2055MHz	17			dB
Return loss	RL		21			dB
Intermodulation distortion (Note 2)	IMD	2 x 15W CW tones, 1 MHz spacing	60			dBc
Group delay					2.0	ns
Group delay variation		1850MHz to 2055MHz			0.5	ns

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

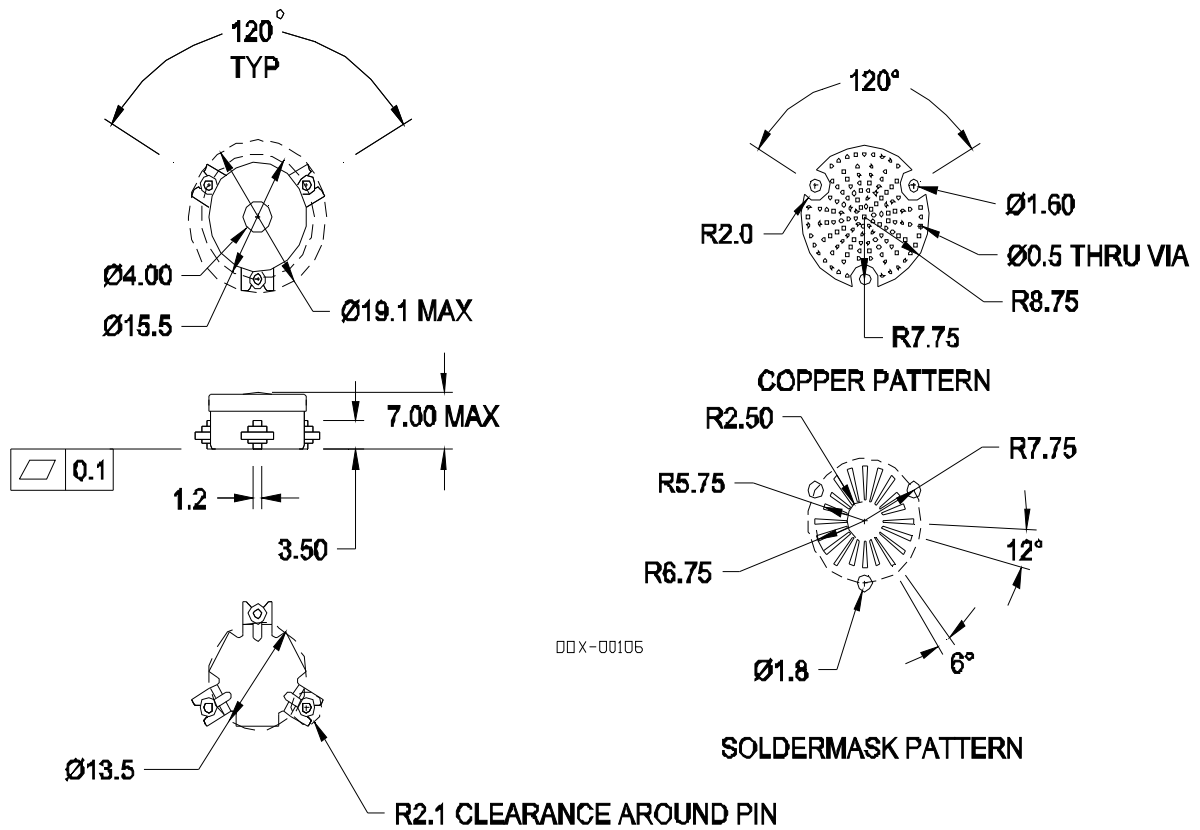
Note 2: See Skyworks Application Note, *Intermodulation Distortion Measurements of Ferrites*, document number 201537 for further details.

Table 3. Plating Specification

Section	Base Material	Plating
Pins	Bronze	Gold
Housing	Steel	Silver

Table 4. Ordering Information

Manufacturing Part Number	Evaluation Board Part Number
SKYFR-000932	TFX-00103

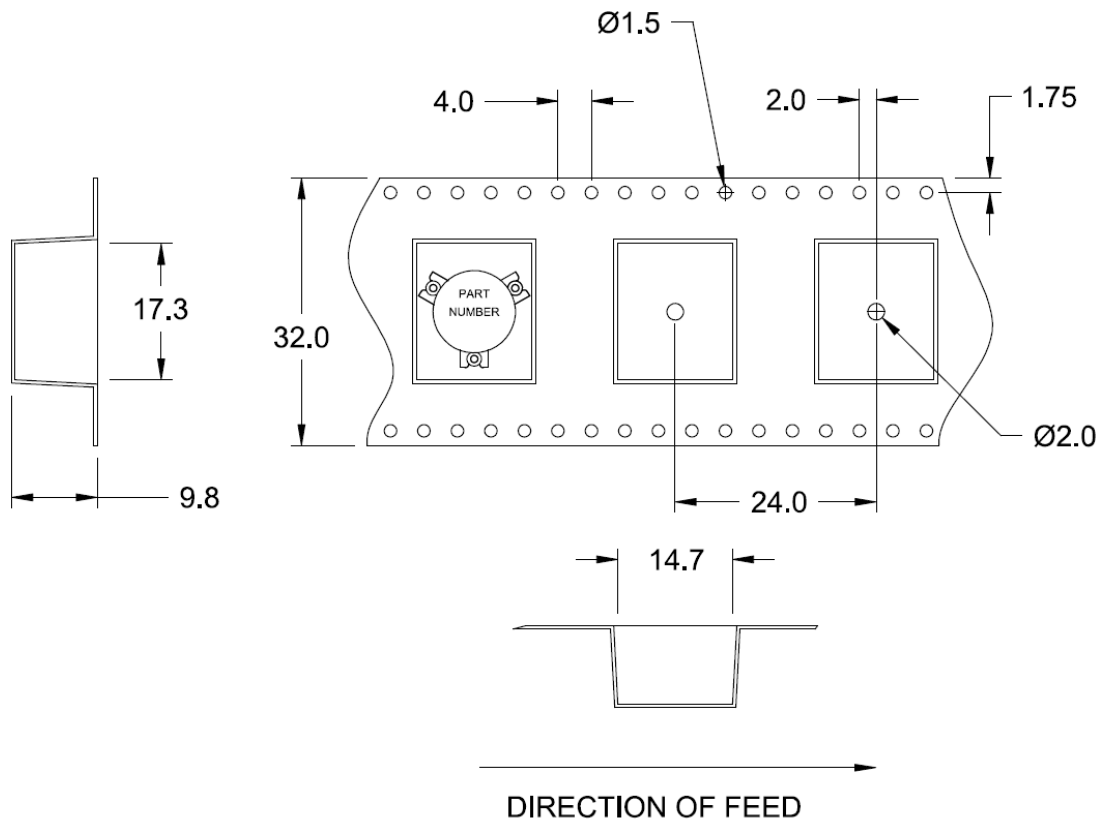


NOTE: Unit marking is on a paper label on top of cover.

All dimensions in millimeters.
 Tolerance: ±0.2mm unless otherwise specified.
 Coplanarity specification: 0.1mm maximum.
 Model number, lot code and port designation printed on top side of device.

Figure 2. Package Dimensions and Recommended PCB Layout

SPECIFICATION SHEET • SKYFR-000932



All dimensions in millimeters.
 Tolerance: $\pm 0.2\text{mm}$ unless otherwise specified.
 Carrier tape: Black conductive polycarbonate or polystyrene.
 Reel size: 13"
 Quantity per reel: 200

Figure 3. Tape and Reel Dimensions

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