

SPECIFICATION SHEET

SKYFR-001400: 925—960 MHz Single Junction Robust Lead Circulator

Applications

- Wireless infrastructure
- Power amplifiers


Features

- Small surface mount package
- Operating frequency range: 925 to 960 MHz
- BeO free
- RoHS compliant
- Tape & Reel

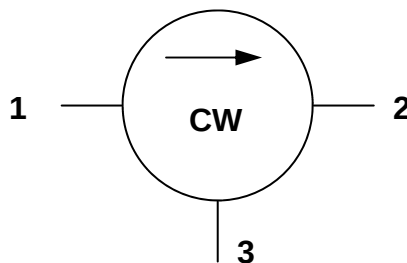
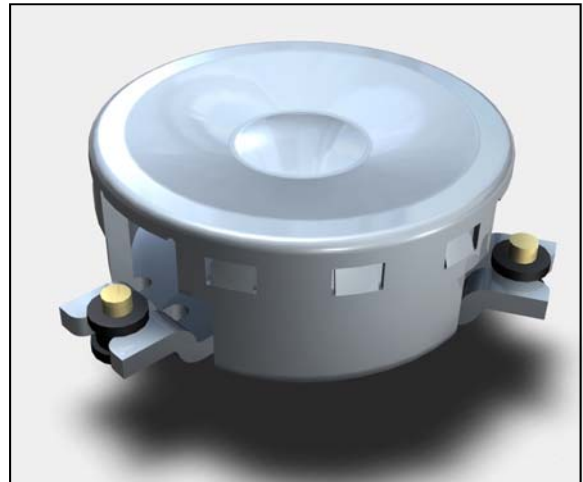


Figure 1. Block Diagram

Table 1. Absolute Maximum Ratings

Parameter	Symbol	Test Condition	Min	Max	Units
Average power	P_{AVG}		70	80	W
Peak power	P_{PK}		200	250	W
Operating temperature range	T_{OP}		-40	+110	°C
Storage temperature range	T_{STOR}		-65	+150	°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		925		960	MHz
Impedance				50		Ω
Input impedance, real			45	50	55	Ω
Input impedance, imaginary			-j5		+5j	Ω
Insertion loss	IL				0.30	dB
Isolation	ISO		22	23		dB
Return loss	RL		22	23		dB
Intermodulation distortion (Note 2)	IMD	2 x 20W CW tones, 1 MHz spacing (-40—+85°C)	58			dBc
Intermodulation distortion (Note 2)	IMD	2 x 20W CW tones, 1 MHz spacing (+85—+110°C)	56			dBc
Harmonics, 2nd			15			dB
Harmonics, 3rd			10			dB
Out of band resonance point			>300			MHz
Group delay					2.0	ns
Group delay variation					0.5	ns

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

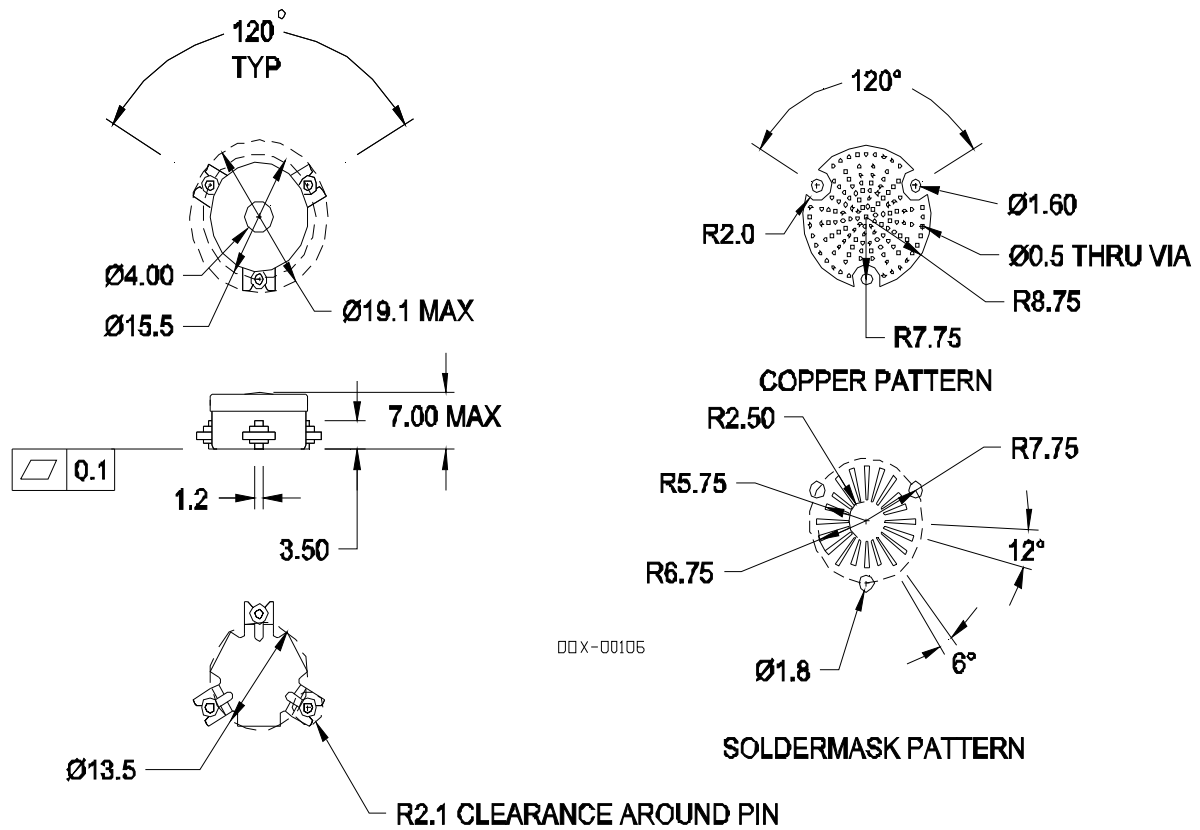
Note 2: See Skyworks Application Note, *Intermodulation Distortion Measurements of Ferrites*, document number 201537 for further details.

Table 3. Plating Specification

Section	Base Material	Plating
Pins	Brass	Silver
Housing	Steel	Silver

Table 4. Ordering Information

Manufacturing Part Number	Evaluation Board Part Number
SKYFR-001400	TFX-00167&PCB-00108

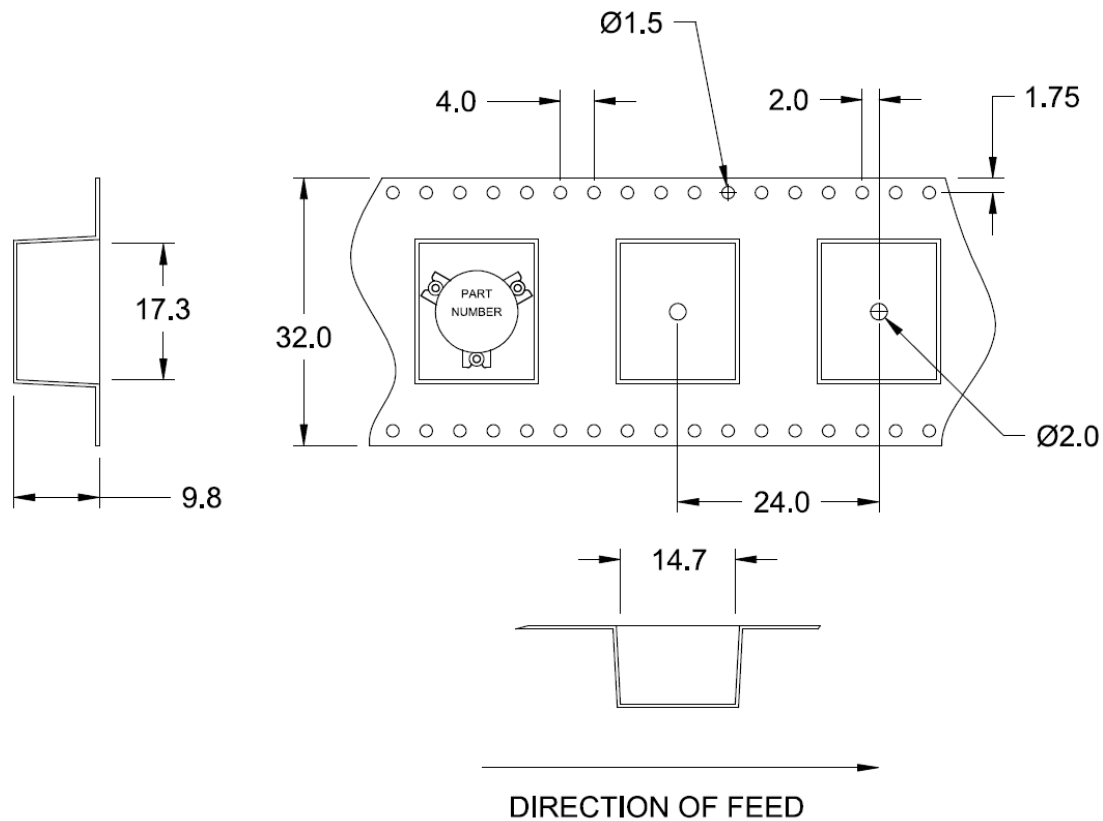


NOTE: Unit marking is on a paper label on top of cover.

All dimensions in millimeters.
 Tolerance: $\pm 0.2\text{mm}$ 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

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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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