SKYFR-000800: 1890—2030 MHz Single Junction Robust Lead Isolator

Applications

- Wireless infrastructure
- Power amplifiers

Features

- Operating frequency range: 1890 to 2030 MHz
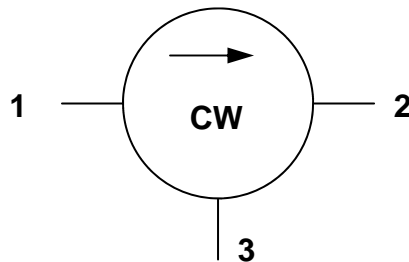- BeO free
- RoHS compliant

Figure 1. Block Diagram

Table 1. Absolute Maximum Ratings

Parameter	Symbol	Test Condition	Min	Max	Units
Average power, forward	P_{AVG}			50	W
Peak power, forward	P_{PK}			300	W
Average power, reverse	P_{REV}			50	W
Operating temperature range	T_{OP}		-40	+85	°C
Storage temperature range	T_{STOR}		-40	+100	°C

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

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Table 2. Electrical Specifications (Note 1)

Parameter	Symbol	Test Condition	Min	Typical	Max	Units
Frequency range	f		1890		2030	MHz
Impedance				50		Ω
Insertion loss	IL				0.35	dB
Isolation	ISO		22			dB
Return loss	RL	Port 1 and Port 2	22			dB
Return loss	RL	Port 3	16			dB
Attenuation		Port 2 to Port 3	28	30	32	dB
Intermodulation distortion (Note 2)	IMD	2 x 22W CW tones, 5MHz spacing			-76	dBc
Harmonics		2 x f_o, 50W CW			-5	dBm
Harmonics		3-5 x f_o, 50W CW			-7	dBm
Out of band attenuation Port 1 to Port 2		2 x f_o	10			dB
Out of band attenuation Port 1 to Port 2		3 x f_o	10			dB
Out of band attenuation Port 1 to Port 2		n x f_o	5			dB
Group delay		Within frequency range	0.5		2.8	ns
Deviation from nominal delay over temperature range		Measured with fixed frequency			± 0.05	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.
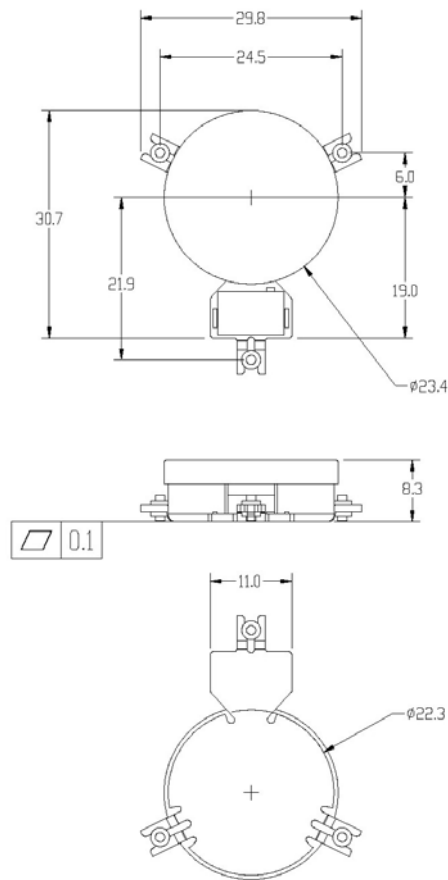
Table 3. Plating Specification

Section	Base Material	Plating
Pins	Bronze	Silver
Housing	Steel	Silver

Table 4. Ordering Information

Manufacturing Part Number	Evaluation Board Part Number
SKYFR-000800	TFX-00056

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ODX-00033

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

Figure 2. Package Dimensions

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