

SPECIFICATION SHEET

SKYFR-001641: 753—803 MHz Single Junction Robust Lead Isolator

Applications

- Wireless infrastructure
- Power amplifiers


Features

- Operating frequency range: 753 to 803 MHz
- BeO free
- RoHS compliant

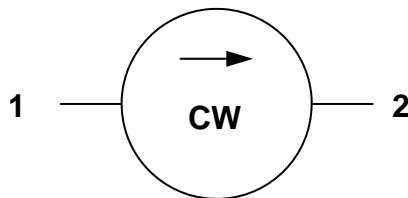


Figure 1. Block Diagram

Table 1. Absolute Maximum Ratings

Parameter	Symbol	Test Condition	Min	Max	Units
Input power	P			150	W
Peak power	P _{PK}			1200	W
Reverse power	P	With baseplate of 210°C for 10 minutes		60	W
Operating temperature range	T _{OP}		-40	+120	°C
Storage temperature range	T _{STOR}		-55	+150	°C

Note: 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.

Table 2. Electrical Specifications (Note 1)

Parameter	Symbol	Test Condition	Min	Typical	Max	Units
Frequency range	f		758		803	MHz
Impedance				50		Ω
Input impedance, real		758-803MHz, 0°C—120°C	44		56.5	Ω
Input impedance, real		753-803MHz, 0°C—120°C	44		58	Ω
Input impedance, imaginary		0°C—120°C	-j5		+j6.5	Ω
Input impedance, real		758-803MHz, -40°C—0°C	43		57.5	Ω
Input impedance, real		753-803MHz, -40°C—0°C	43		59	Ω
Input impedance, imaginary		-40°C—0°C	-j6		+j6.5	Ω
Insertion loss	IL	758-803MHz, -40°C—90°C			0.30	dB
Insertion loss	IL	753-803MHz, -40°C—90°C			0.32	dB
Insertion loss	IL	758-803MHz, 90°C—120°C			0.35	dB
Insertion loss	IL	753-803MHz, 90°C—120°C			0.37	dB
Isolation	ISO	758-803MHz, 0°C—120°C	23			dB
Isolation	ISO	753-803MHz, 0°C—120°C	21			dB
Isolation	ISO	758-803MHz, -40°C—0°C	22			dB
Isolation	ISO	753-803MHz, -40°C—0°C	20			dB
Isolation	ISO	670MHz—890MHz	8			dB
Return loss, input	RL	758-803MHz, 0°C—120°C	23			dB
Return loss, input	RL	753-803MHz, 0°C—120°C	21			dB
Return loss, input	RL	758-803MHz, -40°C—0°C	22			dB
Return loss, input	RL	753-803MHz, -40°C—0°C	20			dB
Return loss, output	RL	758-803MHz	22			dB
Return loss, output	RL	753-803MHz	20			dB
Intermodulation distortion (Note 2)	IMD	2 x 65W CW tones, 1MHz spacing, -40°C—90°C	68			dBc
Intermodulation distortion (Note 2)	IMD	2 x 65W CW tones, 1MHz spacing, 90°C—120°C	65			dBc

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Table 2. Electrical Specifications (Note 1)

Parameter	Symbol	Test Condition	Min	Typical	Max	Units
Group Delay					2.0	ns
Group Delay variation					0.5	ns
Group Delay variation		670MHz—890MHz			2.0	ns
Resonance frequency			891		701	MHz
Harmonics, 2nd			10			dBc
Harmonics, 3rd			10			dBc

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.

Note 3: Performance will not degrade by >10% with an operating temperature of +130°C.

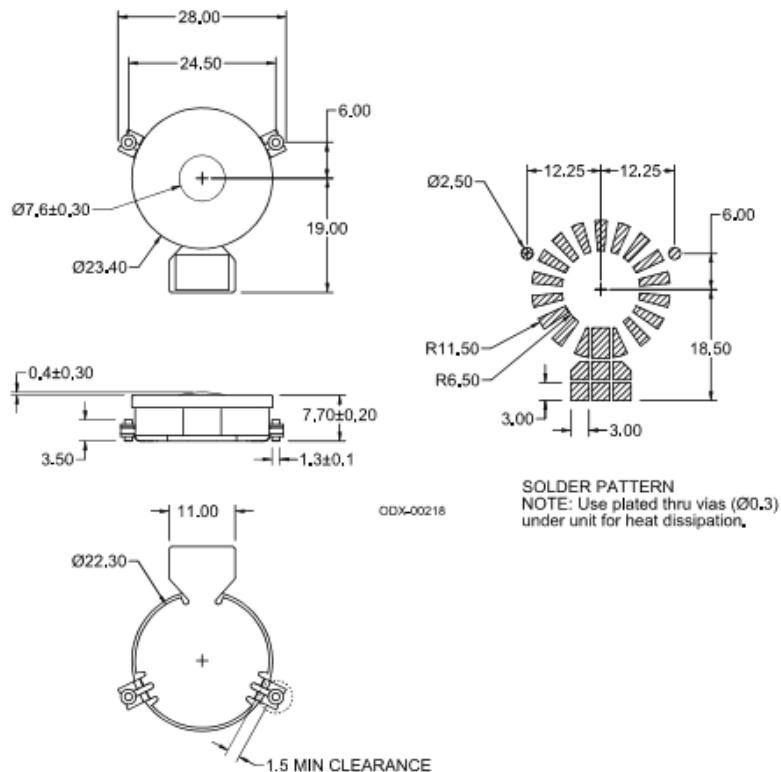
Table 3. Plating Specification

Section	Base Material	Plating
Pins	Brass	Silver
Housing	Steel	Silver

Table 4. Ordering Information

Manufacturing Part Number	Evaluation Board Part Number
SKYFR-001641	PCB-000188

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All dimensions in millimeters.

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

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

Figure 2. Package Dimensions

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