

SKYFR-001298: 758—803 MHz Single Junction Robust Lead Isolator

Applications

- Wireless infrastructure
- Power amplifiers

Features

- Operating frequency range: 758 to 803 MHz
- BeO free
- RoHS compliant

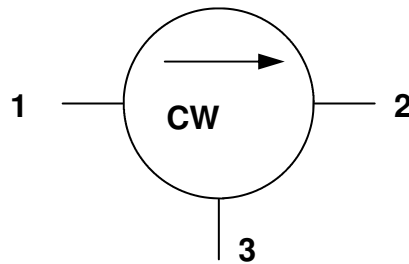


Figure 1. Block Diagram

Table 1. Absolute Maximum Ratings

Parameter	Symbol	Test Condition	Min	Max	Units
Average power, forward	P_{AVG}			130	W
Peak power, forward	P_{PK}			2250	W
Average power, reverse	P_{REV}	No time limit		80	W
Operating temperature range	T_{OP}		-40	+115	°C
Storage temperature range	T_{STOR}		-40	+125	°C

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

SPECIFICATION SHEET • SKYFR-001298
Table 2. Electrical Specifications (Note 1)

Parameter	Symbol	Test Condition	Min	Typical	Max	Units
Frequency range	f		758		803	MHz
Impedance				50		Ω
Insertion loss	IL	P1 to P2			0.25	dB
Isolation	ISO	P2 to P1, 758MHz to 803MHz	22			dB
Isolation	ISO	P2 to P1, 738 MHz to 823 MHz	17			dB
Isolation	ISO	P2 to P1, 713 MHz to 848 MHz	10			dB
Isolation	ISO	P2 to P1, 668 MHz to 893 MHz	8			dB
Isolation	ISO	P2 to P1, 623 MHz to 938 MHz	6			dB
Return loss	RL	P1 and P2, 758MHz to 803MHz, 0°C to +115°C	22			dB
Return loss	RL	P1 and P2, 758MHz to 803MHz, -40°C to +0°C	20			dB
Return loss	RL	P1 and P2, 738 MHz to 823 MHz	16			dB
Return loss	RL	P1 and P2, 668 MHz to 893MHz	6			dB
Return loss	RL	P1 and P2, 623 MHz to 938 MHz	3			dB
Return loss	RL	P3	16			dB
Attenuation		P2 to P3	28	30	32	dB
Intermodulation distortion, 3rd order (Note 2)	IMD3	2 x 50W CW tones, 5MHz spacing			-65	dBc
Intermodulation distortion, 5th order (Note 2)	IMD5	2 x 50W CW tones, 5MHz spacing			-75	dBc
Harmonics		2 x f_0 , 50W CW			0	dBm
Harmonics		3-4 x f_0 , 50W CW			-10	dBm
Harmonics		5 x f_0 , 50W CW			-35	dBm
Harmonics		6-7 x f_0 , 50W CW			-25	dBm
Out of band attenuation Port 1 to Port 2		2 x f_0	10			dB
Out of band attenuation Port 1 to Port 2		3 x f_0	10			dB
Out of band attenuation Port 1 to Port 2		n x f_0	5			dB
Group delay		758MHz to 803MHz	0.5		2.8	ns
Deviation from nominal group delay over temperature range		Measured with fixed frequency for 758MHz to 803MHz			± 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.

Note 3: All testing done using Ericsson specified test fixture.

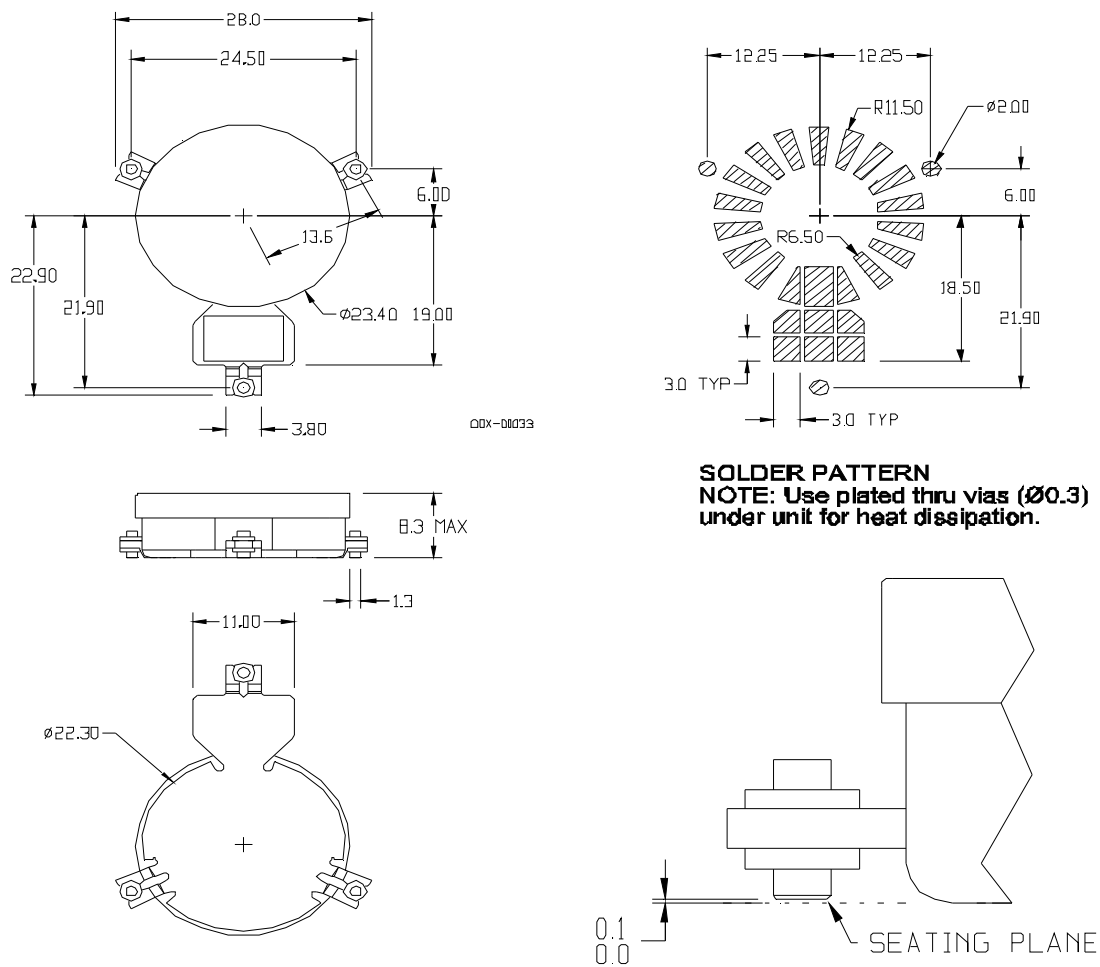
Table 3. Plating Specification

Section	Base Material	Plating
Leads	Copper	Silver
Housing	Steel	Silver

Table 4. Ordering Information

Manufacturing Part Number	Ericsson Part Number
SKYFR-001298	UNH 102 3055/02

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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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