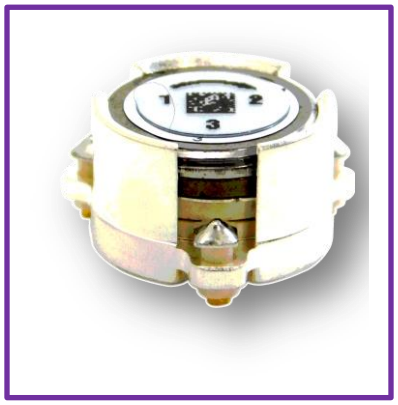
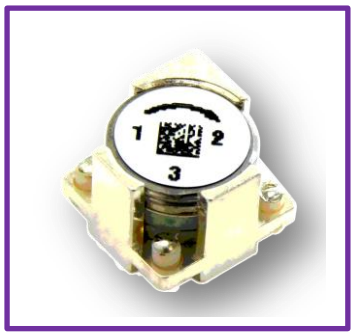
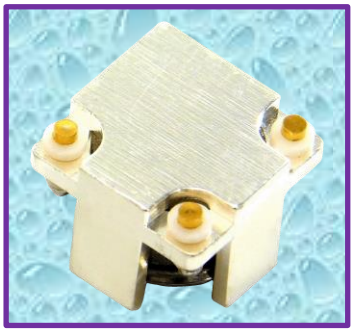
RF Circulators
Isolators Inc.

Lower 5G Bands SMD Circulators







LOWER 5G BANDS SMD CIRCULATORS

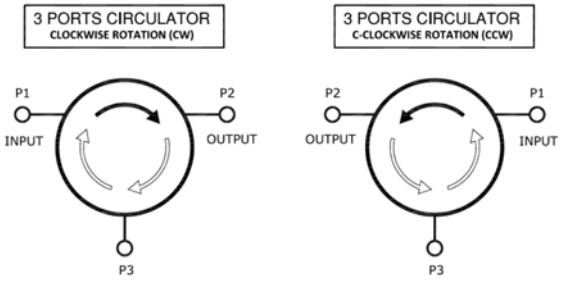
PRODUCT DESCRIPTION

RFCI newly released lower 5G Bands SMD Circulators, designed to meet the demands of communication systems for applications in high performance linear power amplifiers.
Feature a robust construction for reliability performance at low cost and high reverse power handling capability. These designs package ideally suited for high volume manufacturing.

KEY FEATURES

- Low Insertion loss
- High Isolation and Return loss
- Wide Operation Temperature Range
- Designed to function after exposure to the shock, vibration, and thermal shock
- Matrix Bar Code for part identify

FUNCTION DIAGRAM



RoHS

- Products available with alternative configuration and reverse rotation direction
- Ship on tape and reel on high volume Order

RF Circulator Isolator Inc. ■ Phone +1 408 977 1526 Fax +1 408 977 1534
Visit www.rfmw.com for addition data sheets and information

PIN STYLE SURFACE MOUNT CIRCULATORS

- Miniature package size and designed for automated SMT placement
- Robust package and connection lead Construction for High Reliability
- Low Insertion Loss, Excellent performance, High Power Handling

12.7mm (0.500”) Square Package -SMD Pin Style CIRCULATOR

Frequency Range (MHz)		Insertion Loss (dB)	Isolation (dB)	Return Loss (dB)	Fwd. PWR P/CW (W)	Rev PWR CW (W)	Operating Temperature	Package Outline	RFCI Part Number
Low	**High**	**Room/OT**	**Room/OT**	**Room/OT**	**Max.**	**Max.**	**(ºC)**		
3100	**3550**	0.30/0.35	20/18	20/18	500/30	30	-40 to +85°C	SM-04	**RFCR5839D**
3300	**3600**	0.30/0.35	20/19	20/19	500/30	30	-40 to +85°C	SM-04	**RFCR5840D**
3500	**3700**	<0.30/0.30	23/20	23/20	500/30	30	-40 to +85°C	SM-04	**RFCR5834D**
3400	**3800**	0.30/0.35	20/18	20/18	500/30	30	-40 to +85°C	SM-04	**RFCR5841D**
3600	**4200**	0.35/0.40	20/18	20/18	500/30	30	-40 to +85°C	SM-04	**RFCR5842D**
4400	**5000**	<0.30/0.30	23/20	23/20	500/30	30	-40 to +85°C	SM-04	**RFCR5919D**

9.0mm (0.350”) Square Package-SMD Pin Style CIRCULATOR

Frequency Range (MHz)		Insertion Loss (dB)	Isolation (dB)	Return Loss (dB)	Fwd. PWR P/CW (W)	Rev PWR CW (W)	Operating Temperature	Package Outline	RFCI Part Number
Low	**High**	**Room/OT**	**Room/OT**	**Room/OT**	**Max.**	**Max.**	**(ºC)**		
3400	**3700**	0.30/0.35	21/18	21/18	500/20	20	-40 to +85°C	SM-05	**RFCR5835D**
3600	**3800**	0.30/0.35	21/18	21/18	500/20	20	-40 to +85°C	SM-05	**RFCR5836D**
4400	**4800**	0.30/0.35	21/18	21/18	500/20	20	-40 to +85°C	SM-05	**RFCR5915D**
4600	**5000**	0.30/0.35	21/18	21/18	500/20	20	-40 to +85°C	SM-05	**RFCR5916D**

Standard Part Number is Clockwise (CW) Rotation. Add letter “R” at the end to Part number for a Counter Clockwise (CCW) Rotation

11mm (0.430”) Round Package -SMD Pin Style CIRCULATOR

Frequency Range (MHz)		Insertion Loss (dB)	Isolation (dB)	Return Loss (dB)	Fwd. PWR P/CW (W)	Rev PWR CW (W)	Operating Temperature	Package Outline	RFCI Part Number
Low	**High**	**Room/OT**	**Room/OT**	**Room/OT**	**Max.**	**Max.**	**(ºC)**		
3100	**3300**	0.25/0.30	22/20	22/20	500/30	30	-40 to +85°C	SM-06	**RFCR5824**
3200	**3400**	0.25/0.30	22/20	22/20	500/30	30	-40 to +85°C	SM-06	**RFCR5825**
3400	**3700**	0.30/0.35	20/18	20/18	500/30	30	-40 to +85°C	SM-06	**RFCR5830**
3400	**3600**	0.25/0.30	22/20	22/20	500/30	30	-40 to +85°C	SM-06	**RFCR5827**
3500	**3700**	0.25/0.30	22/20	22/20	500/30	30	-40 to +85°C	SM-06	**RFCR5828**
3600	**3800**	0.30/0.35	22/20	22/20	500/30	30	-40 to +85°C	SM-06	**RFCR5829**
4200	**4400**	<0.30/0.30	22/20	22/20	500/30	30	-40 to +85°C	SM-06	**RFCR5907**
4400	**5000**	<0.30/0.30	22/20	22/20	500/30	30	-40 to +85°C	SM-06	**RFCR5908**

9.8mm (0.390”) Round Package -SMD Pin Style CIRCULATOR

Frequency Range (MHz)		Insertion Loss (dB)	Isolation (dB)	Return Loss (dB)	Fwd. PWR P/CW (W)	Rev PWR CW (W)	Operating Temperature	Package Outline	RFCI Part Number
Low	**High**	**Room/OT**	**Room/OT**	**Room/OT**	**Max.**	**Max.**	**(ºC)**		
3400	**3700**	0.30/0.35	21/18	21/18	500/20	20	-40 to +85°C	SM-07	**RFCR5837**
3400	**3600**	0.25/0.30	25/23	25/23	500/20	20	-40 to +85°C	SM-07	**RFCR5832**
3600	**3800**	0.30/0.35	21/18	21/18	500/20	20	-40 to +85°C	SM-07	**RFCR5838**
4400	**5000**	<0.50/0.50	>20/20	>20/20	500/20	20	-40 to +85°C	SM-07	**RFCR5912**
4400	**4800**	0.30/0.35	21/18	21/18	500/20	20	-40 to +85°C	SM-07	**RFCR5917**
4600	**5000**	0.30/0.35	21/18	21/18	500/20	20	-40 to +85°C	SM-07	**RFCR5918**

Standard Part Number is Clockwise (CW) Rotation. Add letter “R” at the end to Part number for a Counter Clockwise (CCW) Rotation

NOTES:
Exposure to maximum rating conditions for extended periods may reduce device reliability
Use multiple plated thru holes in ground area under the housing of device

- S-Parameters to be measured by connecting Port 1 and Port 2 to VNA and Port 3 to Load with load return loss 30dB or higher.
- See RFCI Application Notes for Intermodulation Distortion Measurements and Solder reflows Profile
- The Land Pattern should be with good thermal conductivity.
- Evaluation Board (EVB) is available upon request

UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN MILLIMETERS [INCHES]:

TOLERANCES ARE:

1 PLACE DECIMAL	±.2 [±.01]	ANGULAR:	±1.0°
2 PLACE DECIMAL	±.10 [±.004]	SURFACE ROUGHNESS	16

Finish:

1. Housing: Silver plated
2. Pin: Gold plated
3. Coplanarity specification: 0.10 [.004] Max.
4. Matrix Bar Code: Part No., Serial No., and Date Code

Figure SM-04 *(12.7mm (0.500") Square-Package Dimension)*

RoHS

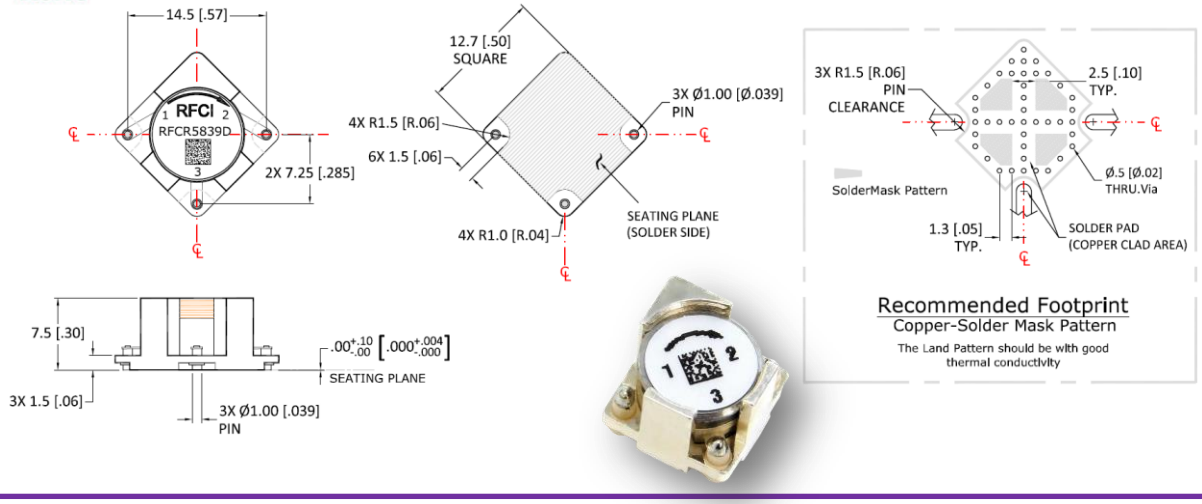


Figure SM-05 *(9.0mm (0.350") Square-Package Dimension)*

RoHS

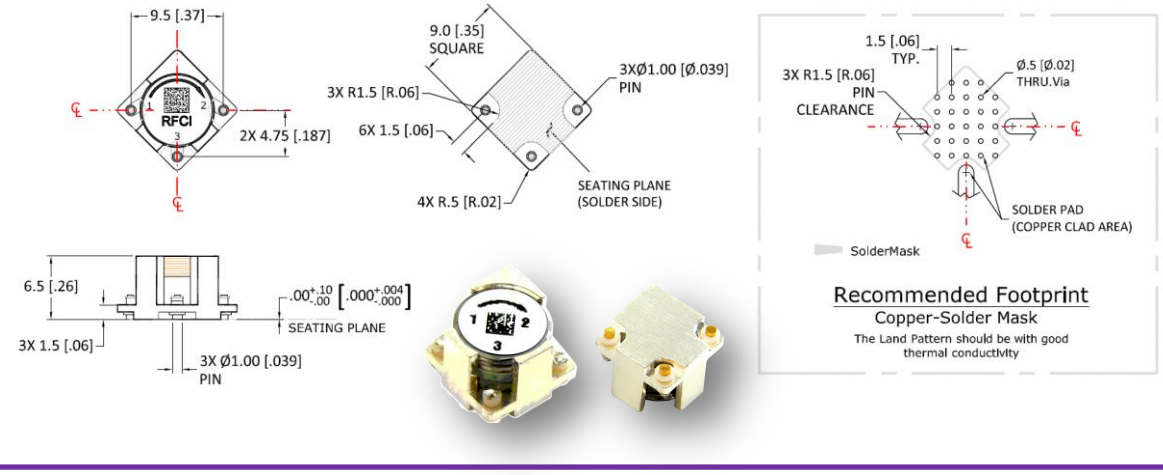


Figure SM-06 (*11.0mm (0.430") Round-Package Dimension*)

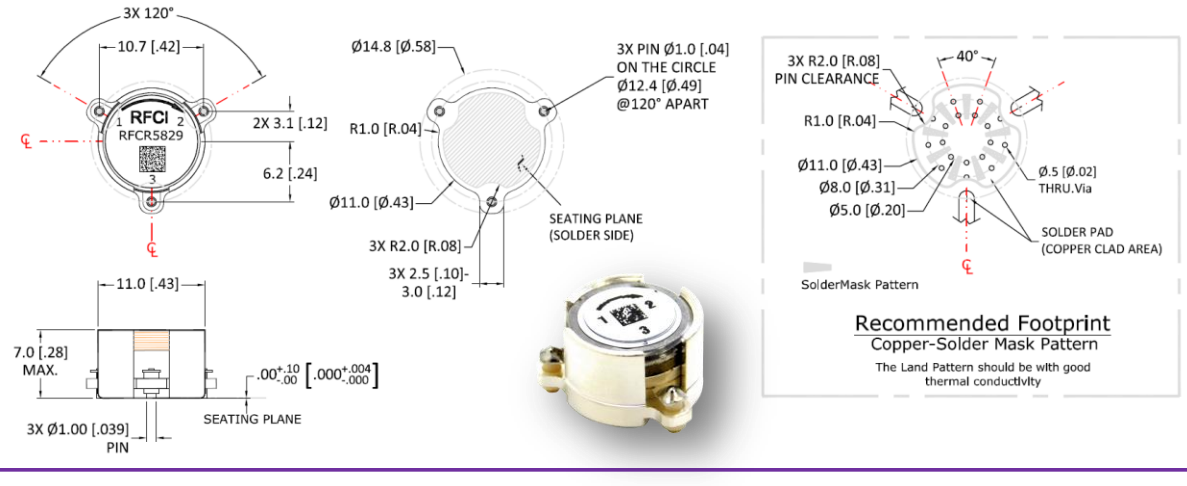
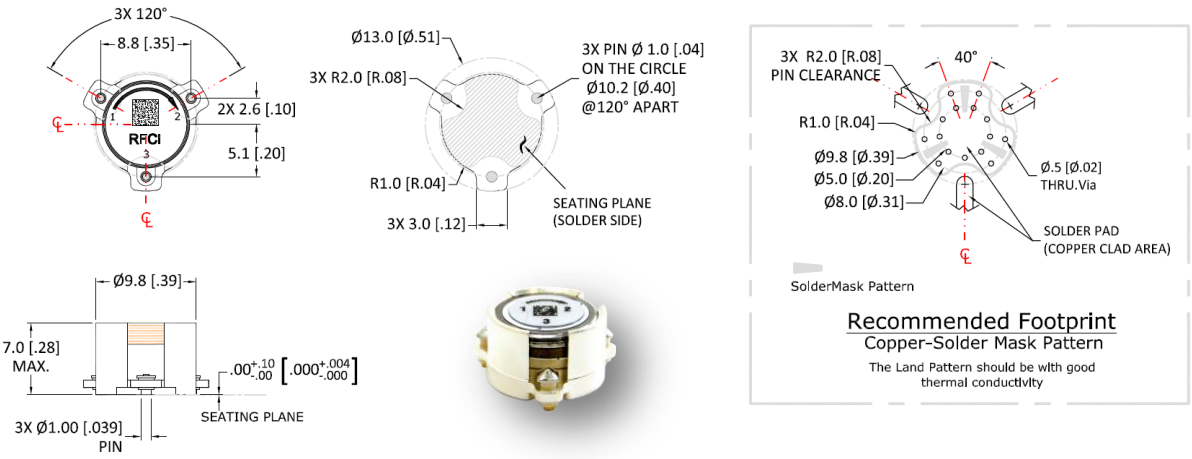


Figure SM-07 (*9.8mm (0.390") Round-Package Dimension*)



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