



.....Precision Junction Circulators and Isolators QJY/QJI

Characteristics

- ◆ Compact
- ◆ High Isolation
- ◆ Low Insertion Loss
- ◆ Broadband

Product Description

QuinStar Technology's **QJY** series **precision junction circulators** and **QJI** series **precision junction isolators** are available in seven waveguide bands covering the frequency range of 18 to 110 GHz. Single-junction isolators and single-junction circulators are offered. These three-port Y-junction ferrite devices feature high isolation, low insertion loss, and broad bandwidth.



Junction circulators and isolators are used to provide load isolation in a wide variety of components including Gunn and IMPATT oscillators and amplifiers, upconverters and downconverters, power combiners, and also as duplexers at the antenna ports of millimeter-wave transceiver systems.

Specifications

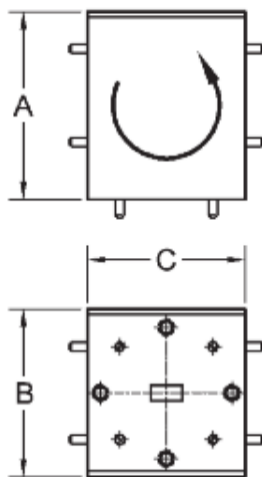
FREQUENCY BAND		K	Ka	Q	U	V	E	W
Frequency Range (GHz)		18-26.5	26.5-40	33-50	40-60	50-75	60-90	75-110
Waveguide Size		WR-42	WR-28	WR-22	WR-19	WR-15	WR-12	WR-10
Bandwidth (GHz min)		2	2	2	2	2	2	2
Isolation (dB min)	Single-Junction	20	20	20	20	20	18	18
Insertion Loss (dB max)	Single-Junction	0.3	0.5	0.5	0.6	0.7	0.8	1.0
VSWR (max)		1.2:1	1.2:1	1.2:1	1.2:1	1.3:1	1.3:1	1.3:1
Power Rating (Watts max), QJY Junction Circulator		10	8	8	6	5	5	4
Power Rating (Watts max), QJI Junction Isolator		3	3	2	2	1.5	1	1

Other waveguide sizes are available.



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Outline Drawings/Mechanical Specifications



Single-Junction Circulators and Isolators
(round flange pattern shown)

FREQUENCY BAND	WAVEGUIDE SIZE	FLANGE PATTERN	SINGLE JUNCTION OUTLINE DIMENSIONS, inches/mm		
			A	B	C
K	WR-42	UG-595/U	1.20/30.5	0.88/22.4	1.00/25.4
Ka	WR-28	UG599/U	0.90/22.9	0.80/20.3	0.90/22.9
Q	WR-22	UG-383/U	1.45/36.8	1.20/30.5	1.13/28.7
U	WR-19	UG-383/U	1.45/36.8	1.20/30.5	1.13/28.7
V	WR-15	UG-385/U	1.05/26.7	0.85/21.6	1.00/25.4
E	WR-12	UG-387/U	1.05/26.7	0.85/21.6	1.00/25.4
W	WR-10	UG-387/U	1.05/26.7	0.85/21.6	1.00/25.4

Ordering Information

