



PLEASE NOTE:

- · Smaller versions of certain model numbers are available.
- · Consult Mi-Wave for current dimensions.

Description

Mi-Wave's 173 series is an H-plane, three-port Y-junction ferrite device. Reflected energy is circulated to isolate the input. All external mating surfaces are machined to extreme flatness to provide connection to standard waveguide flanges for minimum discontinuity. The 173 Series Circulators are

available in standard waveguide sizes from 12.4 to 50 GHz, using square UG-419, UG-595 and 599 style flanges only.

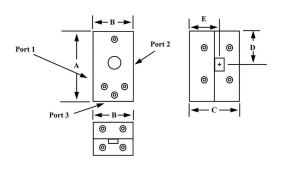
Applications

The 173 Series Y-Junction circulators are useful in transceivers, radars, and operational systems.

- Optimal Temperature Response
- Compact & Rugged
- Broad Bandwidth
- Low Loss
- Low VSWR
- · High Isolation
- * Wider Bandwidths Available

| Dimensional Specifications | | | | | | | | | | | | |
|----------------------------|------|------|------|------|------|------|------|------|------|------|--|--|
| Model No. | A | | В | | С | | D | | E | | | |
| | in. | mm | | |
| 173K | 1.50 | 38.1 | 0.88 | 22.4 | 1.25 | 31.8 | 0.63 | 16.0 | 0.63 | 16.0 | | |
| 173A | 1.20 | 30.5 | 0.75 | 19.1 | 0.75 | 19.1 | 0.38 | 9.7 | 0.38 | 9.7 | | |
| 173B | 1.20 | 30.5 | 0.75 | 19.1 | 0.75 | 19.1 | 0.38 | 9.7 | 0.38 | 9.7 | | |

| TECHNICAL SPECIFICATIONS (TYPICAL) | | | | | | | | | | |
|------------------------------------|---------------|----------|----------|----------|--|--|--|--|--|--|
| Model No. | 173K | 173WR-34 | 173A | 173B | | | | | | |
| Frequency Band (GHz) | 18–26.5 | 22–33 | 26.5–40 | 33–50 | | | | | | |
| Bandwidth ¹ | 1.8 GHz | 1.8 GHz | 1.5 GHz | 1.3 GHz | | | | | | |
| Isolation ² (dB) | 18.0 | 18.0 | 18.0 | 18.0 | | | | | | |
| Insertion Loss (dB) ¹ | 0.3 | 0.3 | 0.4 | 0.5 | | | | | | |
| VSWR ² (Typ) | 1.30 | 1.30 | 1.30 | 1.30 | | | | | | |
| Temperature Range | -15° to +65°C | | | | | | | | | |
| Peak Power (kW) | 1.0 | 1.0 | 1.0 | 1.0 | | | | | | |
| Average Power (Watts) | 30 | 30 | 30 | 25 | | | | | | |
| Weight (oz) | 2.0 | 2.0 | 20 | 2.0 | | | | | | |
| Flange Type | UG-595/U | UG-599/U | UG-599/U | UG-599/U | | | | | | |



Ordering Information

