

## Free Space Isolator (DL-FSI-X-YY-Z)

The Free Space Isolator series can be used to prevent back reflection in a laser diode or light source package. The high isolation, low insertion loss and large aperture features make it suitable to fit with different diode laser or light source packaging requirements.

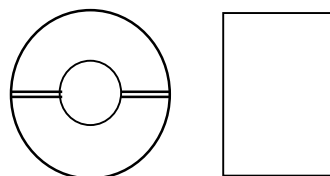
### A. Specifications

| Parameter                                    | Single Stage | Dual Stage | Unit   |
|--|--------------|------------|--------|
| Center Wavelength ( $\lambda_c$ )            | 1310 or 1550 |            | nm     |
| Peak Isolation                               | 42           | 55         | dB     |
| Min. Isolation, $\lambda_c \pm 15$ nm, 23 °C | 30           | 40         | dB     |
| Max. Insertion Loss                          | 0.20         | 0.30       | dB     |
| Clear Aperture                               | 0.9          |            | mm     |
| Max. Optical Power (Continuous Wave)         | 300          |            | mW     |
| Polarization Plane of Input                  | As Indicated |            |        |
| Tilt Angle of Input Polarization             | 0 or Specify |            | degree |
| Operating Temperature                        | 0 to +60     |            | °C     |
| Storage Temperature                          | -40 to +85   |            | °C     |

### B. Reliability Test

|                               |   |
|-------------------------------|---|
| High Temperature Test         | 230 °C for 3 minutes  |
| Temperature Cycling Test      | -40 °C to 85 °C, rate 2 °C/minutes<br>Dwell time 20 minutes at -40 °C and 85 °C, 500 cycles |
| Low Temperature Storage Test  | -40 °C for 500 hours  |
| High Temperature Storage Test | 85 °C for 500 hours   |
| Vibration Test                | 10 - 2000 Hz sinusoidal, 20 g acceleration, 3 axes  |
| Impact Test                   | 8 drops per axis, 1.8 meter high  |

### C. Package Dimensions



Single Stage dia2.5 × L2.0 mm

Dual Stage dia2.5 × L2.5 mm

### D. Ordering Information

#### DL-FSI-X-YY-Z

|                  |                |                 |
|------------------|----------------|-----------------|
| X: Stage         | YY: Wavelength | Z: Package Size |
| 1 - Single stage | 31 - 1310 nm   | 1 - dia2.5 mm   |
| 2 - Dual stage   | 48 - 1480 nm   | S - Specify     |
|                  | 55 - 1550 nm   |                 |
|                  | SS - Specify   |                 |