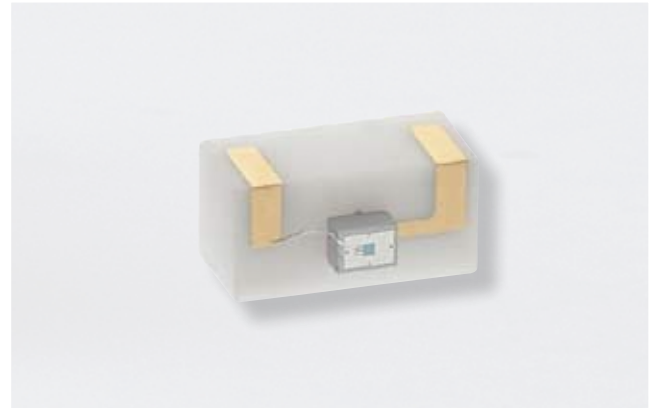


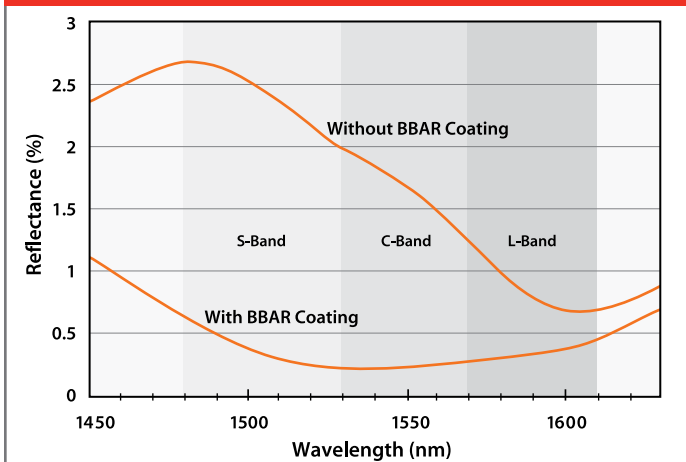
# FCI-InGaAs-WCER-LR

## Broadband Anti-Reflection Coated InGaAs Photodiodes

OSI Optoelectronics's latest product line includes a very low reflectance photodiode. Designed for telecommunication applications, the InGaAs/InP photodiode has a typical optical reflectance of less than .6% from 1520nm to 1620nm. This ultra low reflectance over the wide wavelength range was achieved by depositing a proprietary multi-layered Anti-Reflection coating directly onto the surface of the InGaAs/InP photodiode.



**Reflectance Curve**



### APPLICATIONS

- Wavelength Locker / Wavelength Monitoring
- Lasers Back Facet Monitoring
- DWDM
- Instrumentation

### FEATURES

- Reflectance Less than 0.6%
- Low Noise
- High Responsivity
- High Speed
- Spectral Range 900nm to 1700nm

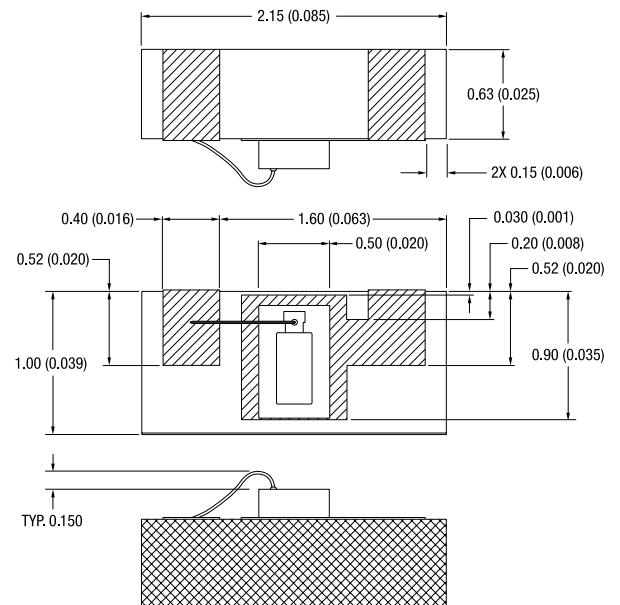
### Absolute Maximum Ratings

| PARAMETERS            | SYMBOL    | MIN | MAX  | UNITS |
|-----------------------|-----------|-----|------|-------|
| Storage Temperature   | $T_{stg}$ | -40 | +85  | °C    |
| Operating Temperature | $T_{op}$  | 0   | +70  | °C    |
| Soldering Temperature | $T_{sld}$ | --- | +260 | °C    |

### Electro-Optical Characteristics

$T_A = 23^\circ\text{C}$

| PARAMETERS           | SYMBOL      | CONDITIONS                                      | MIN  | TYP     | MAX | UNITS                            |
|----------------------|-------------|---|------|---------|-----|----------------------------------|
| Active Area          | AA          | ---   | ---  | 250X500 | --- | $\mu\text{m} \times \mu\text{m}$ |
| Responsivity         | $R_\lambda$ | $\lambda = 1310\text{nm}$                       | 0.85 | 0.90    | --- | A/W                              |
|                      |             | $\lambda = 1550\text{nm}$                       | 0.90 | 0.95    | --- |                                  |
| Capacitance          | $C_j$       | $V_R = 5.0\text{V}$                             | ---  | 15      | --- | pF                               |
| Dark Current         | $I_d$       | $V_R = 5.0\text{V}$                             | ---  | ---     | 1   | nA                               |
| Max. Reverse Voltage | ---         | ---   | ---  | ---     | 20  | V                                |
| Max. Reverse Current | ---         | ---   | ---  | ---     | 2   | mA                               |
| Max. Forward Current | ---         | ---   | ---  | ---     | 5   | mA                               |
| Reflectance          | ---         | $1520\text{nm} \leq \lambda \leq 1620\text{nm}$ | ---  | 0.5     | 0.6 | %                                |



### Notes:

- All units in millimeters.
- All devices are mounted with low out gassing conductive epoxy with tolerance of  $\pm 25\mu\text{m}$ . Eutectic mounting is also available upon request.