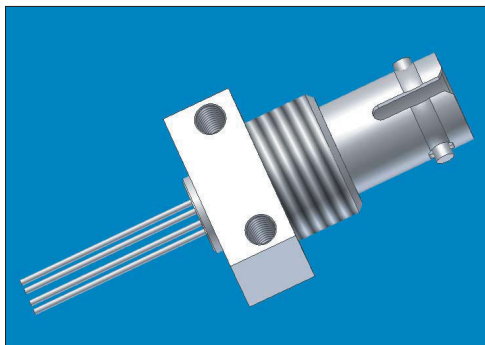


## LDR-FC-XXZ-X-T-XXSTNB-XX



### Features

- 1310nm or 1550nm Wavelength
- High Optical Power
- Low Threshold Current
- High Operating Temperature
- High Speed
- Rear Facet Monitor
- Uncooled
- Custom Designed ST Receptacle
- For Single mode & Multi mode Use
- RoHS Compliant available

### Absolute Maximum Ratings (Tc=25°C)

| Parameter             | Symbol    | Condition | Rating   | Unit |
|-----------------------|-----------|-----------|----------|------|
| LD Reverse Voltage    | $V_{RLD}$ | CW        | 2.5      | V    |
| LD Forward Current    | $I_F$     | CW        | 150      | mA   |
| PD Forward Current    | $I_{FPD}$ | CW        | 2.0      | mA   |
| PD Reverse Voltage    | $V_{RPD}$ | CW        | 15       | V    |
| Operating Temperature | $T_{opr}$ | -         | -40 ~ 85 | °C   |
| Storage Temperature   | $T_{stg}$ | -         | -40 ~ 85 | °C   |

### (All optical data refer to a coupled 9/125µm SM & 50/125µm M/M fiber)

#### Optical and Electrical Characteristics 1310nm (Tc=25°C)

| Parameter                  | Symbol           | Min  | Typ  | Max  | Unit    | Test Conditions                        |
|----------------------------|------------------|------|------|------|---------|--|
| Wavelength                 | $\lambda$        | 1290 | 1310 | 1330 | nm      | CW                                     |
| Spectral Width             | $\Delta\lambda$  | -    | 2    | 5    | nm      | CW(RMS)                                |
| Threshold Current          | $I_{th}$         | -    | 10   | 15   | mA      | CW                                     |
| Output Power (SM, 9/125µm) | $P_f$            | 200  | -    | 500  | $\mu$ W | CW, $I_{op}=I_{th}+20$ mA<br>Kink free |
| L                          |                  | 500  | -    | 1000 |         |  |
| M                          |                  | 1000 | -    | -    |         |  |
| H                          |                  | 2000 | -    | -    |         |  |
| Output Power(MM, 50/125µm) | $P_f$            | 200  | -    | 500  | $\mu$ W | CW, $I_{op}=I_{th}+20$ mA<br>Kink free |
| L                          |                  | 500  | -    | 1000 |         |  |
| M                          |                  | 1000 | -    | -    |         |  |
| H                          |                  | 2000 | -    | -    |         |  |
| Rise Time/Fall Time        | $T_r/T_f$        | -    | 0.5  | -    | ns      |  |
| Forward Voltage            | $V_f$            | -    | 1.2  | 1.7  | V       | CW                                     |
| Tracking error             | $\Delta P_f/P_f$ | -1.5 | -    | +1.5 | dB      | -40 to +85°C                           |
| Monitor Current            | $I_{PD}$         | 0.05 | -    | -    | mA      | CW( $I_{op}$ )                         |
| Monitor Dark Current       | $I_D$            | -    | 0.3  | 1.0  | $\mu$ A | $V_{rd}=5$ V                           |
| Monitor Capacitance        | $C_{PD}$         | -    | 10   | -    | pF      | F=1MHz, $V_{rd}=5$ V                   |

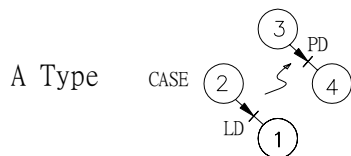
## LDR-FC-XXZ-X-T-XXSTNB-XX

(All optical data refer to a coupled 9/125 $\mu$ m SM & 50/125 $\mu$ m M/M fiber)

### Optical and Electrical Characteristics 1550nm (Tc=25°C)

| Parameter                        | Symbol           | Min  | Typ  | Max  | Unit    | Test Conditions |                                       |
|----------------------------------|------------------|------|------|------|---------|-----------------|---------------------------------------|
| Wavelength                       | $\lambda$        | 1530 | 1550 | 1570 | nm      | CW              |                                       |
| Spectral Width                   | $\Delta\lambda$  | -    | 3    | 5    | nm      | CW(RMS)         |                                       |
| Threshold Current                | $I_{th}$         | -    | 10   | 15   | mA      | CW              |                                       |
| Output Power (SM, 9/125 $\mu$ m) | $P_f$            | L    | 200  | -    | 500     | $\mu$ W         | CW, $I_{op}=I_{th}+25mA$<br>Kink free |
| M                                |                  | 500  | -    | 1000 |         |                 |                                       |
| H                                |                  | 1000 | -    | -    |         |                 |                                       |
| U                                |                  | 2000 | -    | -    |         |                 |                                       |
| Output Power(MM, 50/125 $\mu$ m) | $P_f$            | L    | 200  | -    | 500     | $\mu$ W         | CW, $I_{op}=I_{th}+25mA$<br>Kink free |
| M                                |                  | 500  | -    | 1000 |         |                 |                                       |
| H                                |                  | 1000 | -    | -    |         |                 |                                       |
| U                                |                  | 2000 | -    | -    |         |                 |                                       |
| Rise Time/Fall Time              | $T_r/T_f$        | -    | 0.5  | -    | ns      |                 |                                       |
| Foward Voltage                   | $V_f$            | -    | 1.2  | 1.7  | V       | CW              |                                       |
| Tracking error                   | $\Delta P_f/P_f$ | -15  | -    | +15  | dB      | -40 to +85°C    |                                       |
| Monitor Current                  | $I_{PD}$         | 0.05 | -    | -    | mA      | CW( $I_{op}$ )  |                                       |
| Monitor Dark Current             | $I_D$            | -    | 0.3  | 1.0  | $\mu$ A | Vrd=5V          |                                       |
| Monitor Capacitance              | $C_{PD}$         | -    | 10   | -    | pF      | F=1MHz, Vrd=5V  |                                       |

### LD Pin Assignment



- Pin 1 : Laser Cathode
- Pin 2 : Laser Anode and Case Gnd
- Pin 3 : Monitor Diode Anode
- Pin 4 : Monitor Diode Cathode

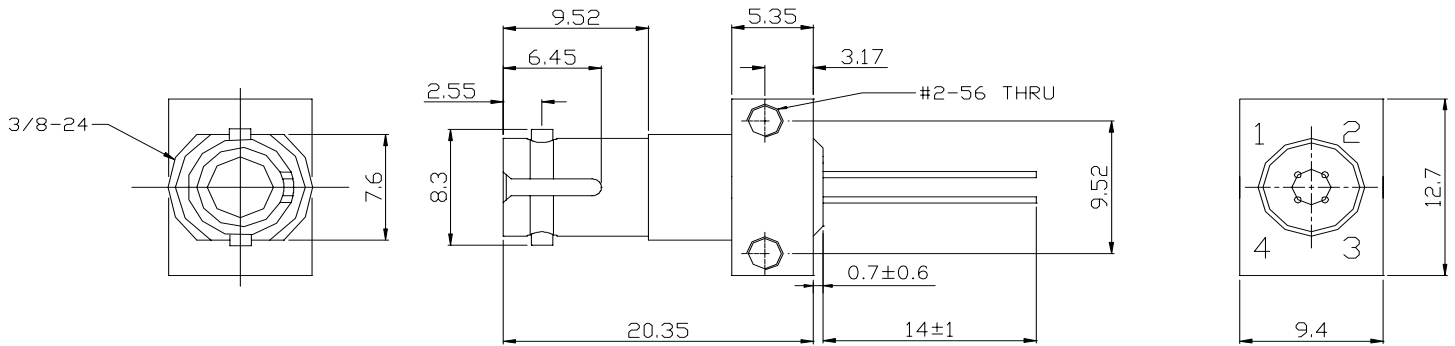


- Pin 1 : Laser Anode and Monitor Diode Cathode
- Pin 2 : Case Gnd
- Pin 3 : Laser Cathode
- Pin 4 : Monitor Diode Anode

LDR-FC-XXZ-X-T-XXSTNB-XX

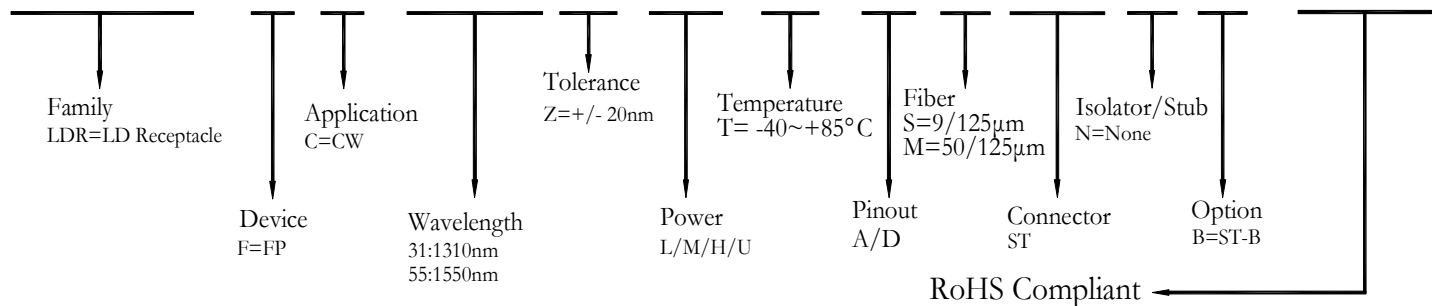
Outline Drawing

Units in mm



Ordering Information

# LDR-FC-XXZ-X-T-XXSTNB-XX



RoHS Compliant  
 -/G5/GR  
 Blank = RoHS non-compliant product  
 G5 = RoHS 5/6-compliant product (lead exemption)  
 GR = Full RoHS compliant product (no exemption)

## LDR-FC-XXZ-X-T-XXSTNB-XX

**Warnings:**

Handling Precautions: This device is susceptible to damage as a result of electrostatic discharge (ESD). A static free environment is highly recommended. Follow guidelines according to proper ESD procedures.  
Laser Safety: Radiation emitted by laser devices can be dangerous to human eyes. Avoid eye exposure to direct or indirect radiation.

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