



Features

- Uncooled laser diode with MQW structure
- 5mW CW operation at -40 to +85°C
- High temperature operation without active cooling
- Hermetically sealed active component
- Built-in InGaAs monitor photodiode
- Complies with Telcordia(Bellcore) GR-468-CORE
- TO-56 packaging with a flat window cap or a ball lens cap
- RoHS compliance available

| Absolute Maximum Rating (Tc=25°C) | | | | | | |
|-----------------------------------|------------------|------------|------|--|--|--|
| Parameter | Symbol | Value | Unit | | | |
| Optical Output Power | Ро | 6(CW) | mW | | | |
| LD Reverse Voltage | V _{RLD} | 2 | V | | | |
| LD Forward Current | I _{FLD} | 150 | mA | | | |
| PD Reverse Voltage | V _{RPD} | 10 | V | | | |
| PD Forward Current | I_{FPD} | 2 | mA | | | |
| Operating Temperature | T _{opr} | -40 to +85 | °C | | | |
| Storage Temperature | T _{stg} | -40 to +85 | °C | | | |

| Optical and Electrical Characteristics(Tc=25°C) | | | | | | |
|--|----------------|------|---------|------|-------|------------------------|
| Parameter | Symbol | Min. | Typical | Max. | Unit | Test Condition |
| Slope Efficiency | | | | | | |
| Flat window cap | SE | 0.2 | 0.25 | - | mW/mA | CW,P _o =5mW |
| Ball lens cap | | 0.15 | 0.18 | | | |
| Threshold Current | Ith | - | 10 | 15 | mA | CW,P _o =5mW |
| Optical output power | Ро | 5 | - | - | mW | CW,kink free |
| Peak Wavelength | λ | 1530 | 1550 | 1570 | nm | Note |
| Spectral Width | Δλ | - | 2 | 5 | nm | CW,P _o =5mW |
| Forward Voltage | V _F | - | 1.2 | 1.5 | V | CW,P _o =5mW |



| Beam Divergence | θ// | | 25 | | dag | |
|--------------------|-------------------|-----|----|-----|------|--|
| Flat window cap | θ_{\perp} | - | 40 | - | deg. | CW,P _o =5mW,FWHM |
| Rise/Fall Time | t_{f} / t_{f} | - | - | 0.5 | ns | 10-90% |
| PD Monitor Current | Im | 100 | - | - | μA | CW,P _o =5mW, V _{RPD} =2V |
| PD Dark Current | I _{DARK} | - | - | 0.1 | μA | V _{RPD} =5V |
| PD Capacitance | Ct | - | 6 | 15 | pF | V _{RPD} =5V, f=1MHz |

Note: Selected wavelength is available for WDM application



Mechanical Drawing









Flat window Cap

Ball Lens Cap

| Model | PIN Assignment (Bottom View) |
|--------|--|
| А Туре | LD ANDDE (CASE) PD (CASE) PD (CAS |
| В Туре | LD ANDDE (CASE) PD ANDDE PD ANDDE LD CATHODE LD CATHODE LD CATHODE LD CATHODE LD CATHODE LD CATHODE LD CATHODE (CASE) PD CATHODE |
| D Type | CASE 2 2 2 2 2 4 2 4 2 2 4 2 2 4 1 PD ANIDE PD ANIDE |



Order Information

Available Options: C-15-001-E-XX C-15-001-E-XX-G5 C-15-001-E-XX-GR

Note: XX=A,AB,AD,B,BB,BD

| С | - 15 | - 001 | - E | - X | X | - XX |
|-----------------|------------|----------------------|----------|----------------|--------------|--|
| Application | Wavelength | Data rate | Header | Сар | Pin out | RoHS compliance |
| | | | | | | |
| C= Communicaton | 15= 1550nm | 001 = <u>≤</u> 1.25G | E= TO-56 | A= Flat window | No symbol= A | Blank = RoHS non-compliant product |
| | | _ | | B= Ball Lens | B= B | G5 = RoHS 5/6-compliant product (lead exemption) |
| | | | | | D= D | GR = Full RoHS compliant product (no exemption) |

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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