



### 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	P <sub>O</sub>	6(CW)	mW
LD Reverse Voltage	V <sub>RLD</sub>	2	V
LD Forward Current	I <sub>FLD</sub>	150	mA
PD Reverse Voltage	V <sub>RPD</sub>	10	V
PD Forward Current	I <sub>FPD</sub>	2	mA
Operating Temperature	T <sub>opr</sub>	-40 to +85	°C
Storage Temperature	T <sub>stg</sub>	-40 to +85	°C

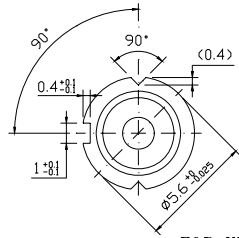
Optical and Electrical Characteristics( Tc=25°C)

Parameter	Symbol	Min.	Typical	Max.	Unit	Test Condition
Slope Efficiency	SE	0.2	0.25	-	mW/mA	CW,P <sub>o</sub> =5mW
Flat window cap		0.15	0.18			
Ball lens cap						
Threshold Current	I <sub>th</sub>	-	10	15	mA	CW,P <sub>o</sub> =5mW
Optical output power	P <sub>o</sub>	5	-	-	mW	CW,kink free
Peak Wavelength	λ	1530	1550	1570	nm	Note
Spectral Width	Δλ	-	2	5	nm	CW,P <sub>o</sub> =5mW
Forward Voltage	V <sub>F</sub>	-	1.2	1.5	V	CW,P <sub>o</sub> =5mW

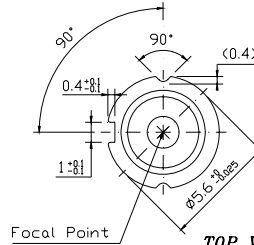
Beam Divergence	$\theta_{//}$	-	25	-	deg.	CW, $P_o=5mW$ , FWHM
Flat window cap	$\theta_{\perp}$	-	40	-		
Rise/Fall Time	$t_r / t_f$	-	-	0.5	ns	10-90%
PD Monitor Current	$I_m$	100	-	-	$\mu A$	CW, $P_o=5mW$ , $V_{RPD}=2V$
PD Dark Current	$I_{DARK}$	-	-	0.1	$\mu A$	$V_{RPD}=5V$
PD Capacitance	$C_t$	-	6	15	pF	$V_{RPD}=5V$ , $f=1MHz$

Note: Selected wavelength is available for WDM application

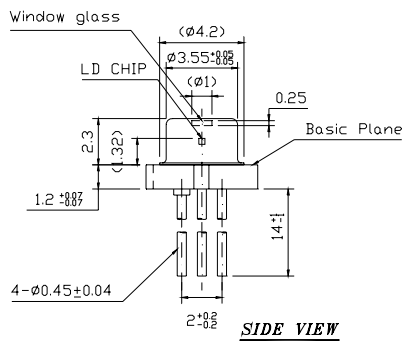
### Mechanical Drawing



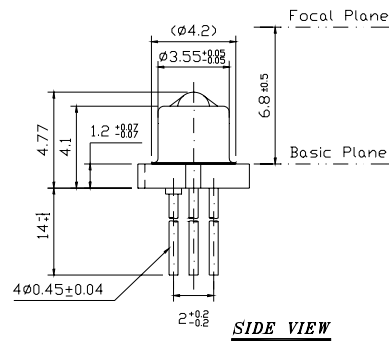
**TOP VIEW**



**TOP VIEW**



**SIDE VIEW**



**SIDE VIEW**

Flat window Cap

Ball Lens Cap

### LD Pin Assignment

Model	PIN Assignment (Bottom View)
A Type	
B Type	
D Type	

## 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

**C - 15 - 001 - E - X X - XX**

**Application**

**Wavelength**

**Data rate**

**Header**

**Cap**

**Pin out**

**RoHS compliance**

C= Communicator

15= 1550nm

001 =  $\leq$  1.25G

E= TO-56

A= Flat window  
B= Ball Lens

No symbol= A  
B= B  
D= D

**Blank = RoHS non-compliant product**

G5 = RoHS 5/6-compliant product (lead exemption)

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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