



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 _O	10(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

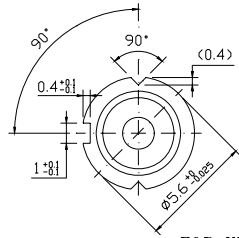
Optical and Electrical Characteristics(Tc=25°C)

Parameter	Symbol	Min.	Typical	Max.	Unit	Test Condition
Slope Efficiency	SE	0.3	0.35	-	mW/mA	CW,P _o =5mW
Flat window cap						
Ball lens cap		0.2	0.3			
Threshold Current	I _{th}	-	10	15	mA	CW,P _o =5mW
Optical output power	P _o	5	-	-	mW	CW,kink free
Peak Wavelength	λ	1290	1310	1330	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

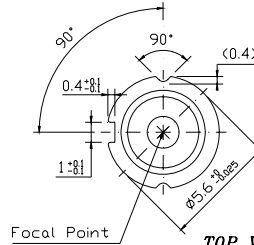
Beam Divergence	$\theta_{//}$	-	25	-	deg.	CW, $P_o=5mW$, FWHM
Flat window cap	θ_{\perp}	-	35	-		
Rise/Fall Time	t_r / t_f	-	-	0.5	ns	10-90%
PD Monitor Current	I_m	100	-	-	μA	CW, $P_o=5mW$, $V_{RPD}=2V$
PD Dark Current	I_{DARK}	-	-	0.1	μA	$V_{RPD}=5V$
PD Capacitance	C_t	-	6	15	pF	$V_{RPD}=5V$, $f=1MHz$

Note: Selected wavelength is available for WDM application

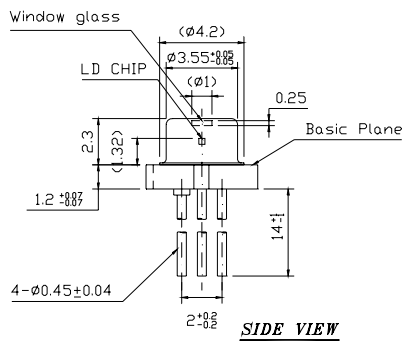
Mechanical Drawing



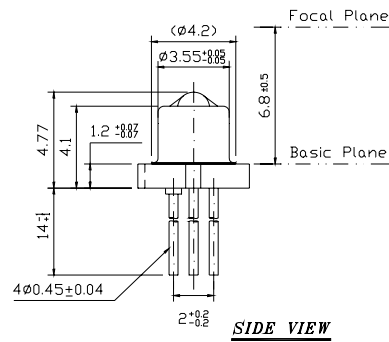
TOP VIEW



TOP VIEW



SIDE VIEW

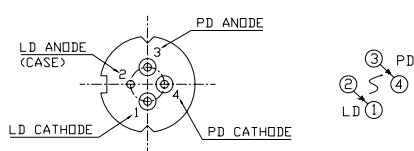
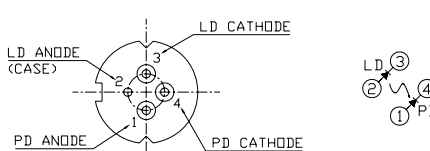
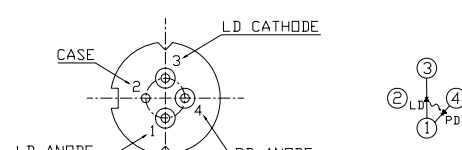


SIDE VIEW

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-13-001-E-XX
- C-13-001-E-XX-G5
- C-13-001-E-XX-GR

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

C - 13 - 001 - E - X X - XX

Application

Wavelength

Data rate

Header

Cap

Pin out

RoHS compliance

C= Communicaton

13= 1310nm

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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