Features

- Uncooled laser diode with MQW structure
- 5mW CW operation at –40 to +85ºC
- 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	Po	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	ºC
Storage Temperature	T_{stg}	-40 to +85	ºC

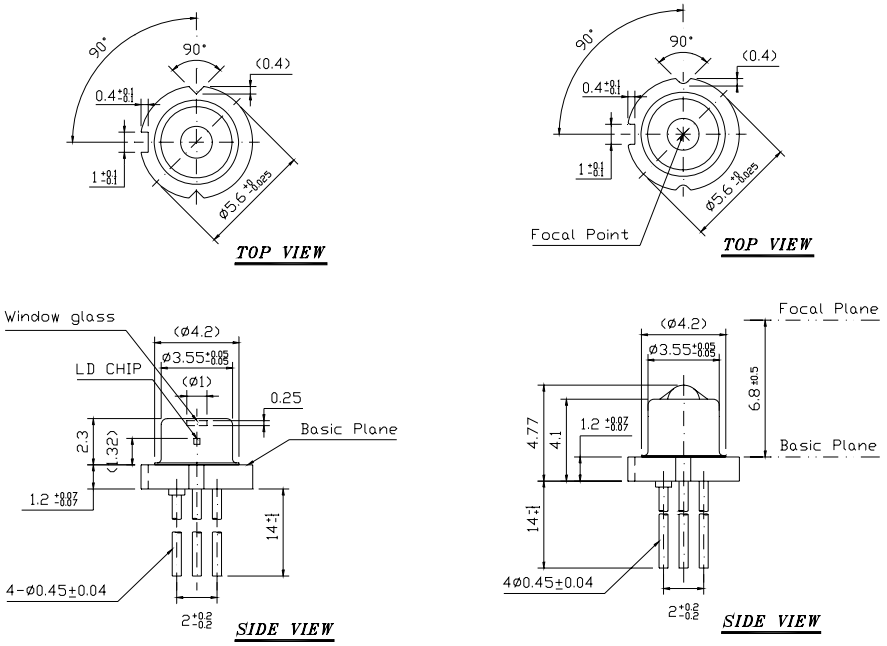
Optical and Electrical Characteristics(Tc=25°C)

Parameter	Symbol	Min.	Typical	Max.	Unit	Test Condition
Slope Efficiency Flat window cap Ball lens cap	SE	 0.3 0.2	 0.35 0.3	-	mW/mA	CW,P_o=5mW
Threshold Current	Ith	-	10	15	mA	CW,P_o=5mW
Optical output power	Po	5	-	-	mW	CW,kink free
Peak Wavelength	λ	1290	1310	1330	nm	Note
Spectral Width	Δ λ	-	2	5	nm	CW,P_o=5mW
Forward Voltage	V_F	-	1.2	1.5	V	CW,P_o=5mW

Beam Divergence Flat window cap	$\theta_{//}$ $\theta_{\perp}$	-	25 35	-	deg.	CW,P_o=5mW,FWHM
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

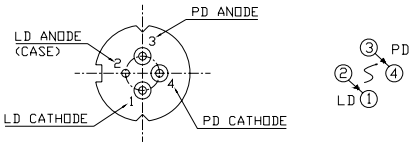
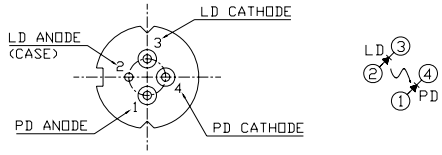
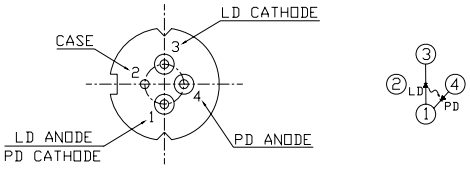
Note: Selected wavelength is available for WDM application

Mechanical Drawing



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 = ≦ 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.

Legal Notice

IMPORTANT NOTICE!

All information contained in this document is subject to change without notice, at Source Photonics' sole and absolute discretion. Source Photonics warrants performance of its products to current specifications only in accordance with the company's standard one-year warranty; however, specifications designated as "preliminary" are given to describe components only, and Source Photonics expressly disclaims any and all warranties for said products, including express, implied, and statutory warranties, warranties of merchantability, fitness for a particular purpose, and non-infringement of proprietary rights. Please refer to the company's Terms and Conditions of Sale for further warranty information.

Source Photonics assumes no liability for applications assistance, customer product design, software performance, or infringement of patents, services, or intellectual property described herein. No license, either express or implied, is granted under any patent right, copyright, or intellectual property right, and Source Photonics makes no representations or warranties that the product(s) described herein are free from patent, copyright, or intellectual property rights. Products described in this document are NOT intended for use in implantation or other life support applications where malfunction may result in injury or death to persons. Source Photonics customers using or selling products for use in such applications do so at their own risk and agree to fully defend and indemnify Source Photonics for any damages resulting from such use or sale.

THE INFORMATION CONTAINED IN THIS DOCUMENT IS PROVIDED ON AN "AS IS" BASIS. Customer agrees that Source Photonics is not liable for any actual, consequential, exemplary, or other damages arising directly or indirectly from any use of the information contained in this document. Customer must contact Source Photonics to obtain the latest version of this publication to verify, before placing any order, that the information contained herein is current.

Contact

U.S.A. Headquarters
20550 Nordhoff Street
Chatsworth, CA 91311
USA
Tel: +1-818-773-9044
Fax: +1-818-773-0261
sales@sourcephotonics.com

China
Building #2&5, West Export Processing Zone
No. 8 Kexin Road, Hi-Tech Zone
Chengdu, 611731, China
Tel: +86-28-8795-8788
Fax: +86-28-8795-8789
sales@sourcephotonics.com.cn

Taiwan
9F, No 81, Shui Lee Rd.
Hsinchu, 300, Taiwan
R.O.C.
Tel: +886-3-5169222
Fax: +886-3-5169213
sales@sourcephotonics.com.tw