ROITHNER LASERTECHNIK GmbH
WIEDNER HAUPTSTRASSE 76 1040 VIENNA AUSTRIA
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QL85I6SA

TECHNICAL DATA

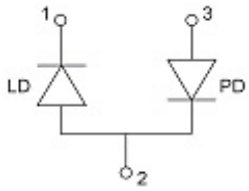
Infrared Laser Diode

Features

- AlGaAs laser diode
- Peak Wavelength: 850 nm
- Optical Ouput Power: 5 mW
- Package: 5.6 mm, with Photo Diode

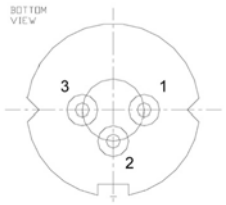
Electrical Connection

Pin Configuration	Bottom View



m-type

PIN	Function
1	LD Cathode
2	LD Anode, PD Cathode
3	PD Anode



Absolute Maximum Ratings (T_C=25°C)

Item	Symbol	Value	Unit
CW Output Power	P_O	32	mW
LD Reverse Voltage	V_R (LD)	2	V
PD Reverse Voltage	V_R (PD)	30	V
Operating Case Temperature	T_C	-10 … +60	°C
Storage Temperature	T_{stg}	-40 … +85	°C

Specifications (T_C=25°C)

Item		Symbol	Min.	Typ.	Max.	Unit
Optical Specifications						
CW Output Power		P_O	-	30	-	mW
Peak Wavelength *		λ_P	845	850	860	nm
FWHM Beam Divergence		$\theta_{\parallel}$	7.0	9.0	12.0	deg
		$\theta_{\perp}$	25	29	36	deg
Emission Point Accuracy	Angle	$\Delta\theta_{\parallel}$	-2.0	-	2.0	deg
		$\Delta\theta_{\perp}$	-3.0	-	3.0	deg
Astigmatism		As			15	µm
Electrical Specifications						
Threshold Current		I_{th}	5	20	35	mA
Operating Current		I_{op}	50	70	90	mA
Slope Efficiency		η	0.4	0.7	1.0	W/A
Operating Voltage		U_{op}	-	2.0	2.5	V
Monitor Current		I_m	0.05	0.2	0.5	mA

* Measuring specifications.

The above specifications are for reference purpose only and subjected to change without prior notice.

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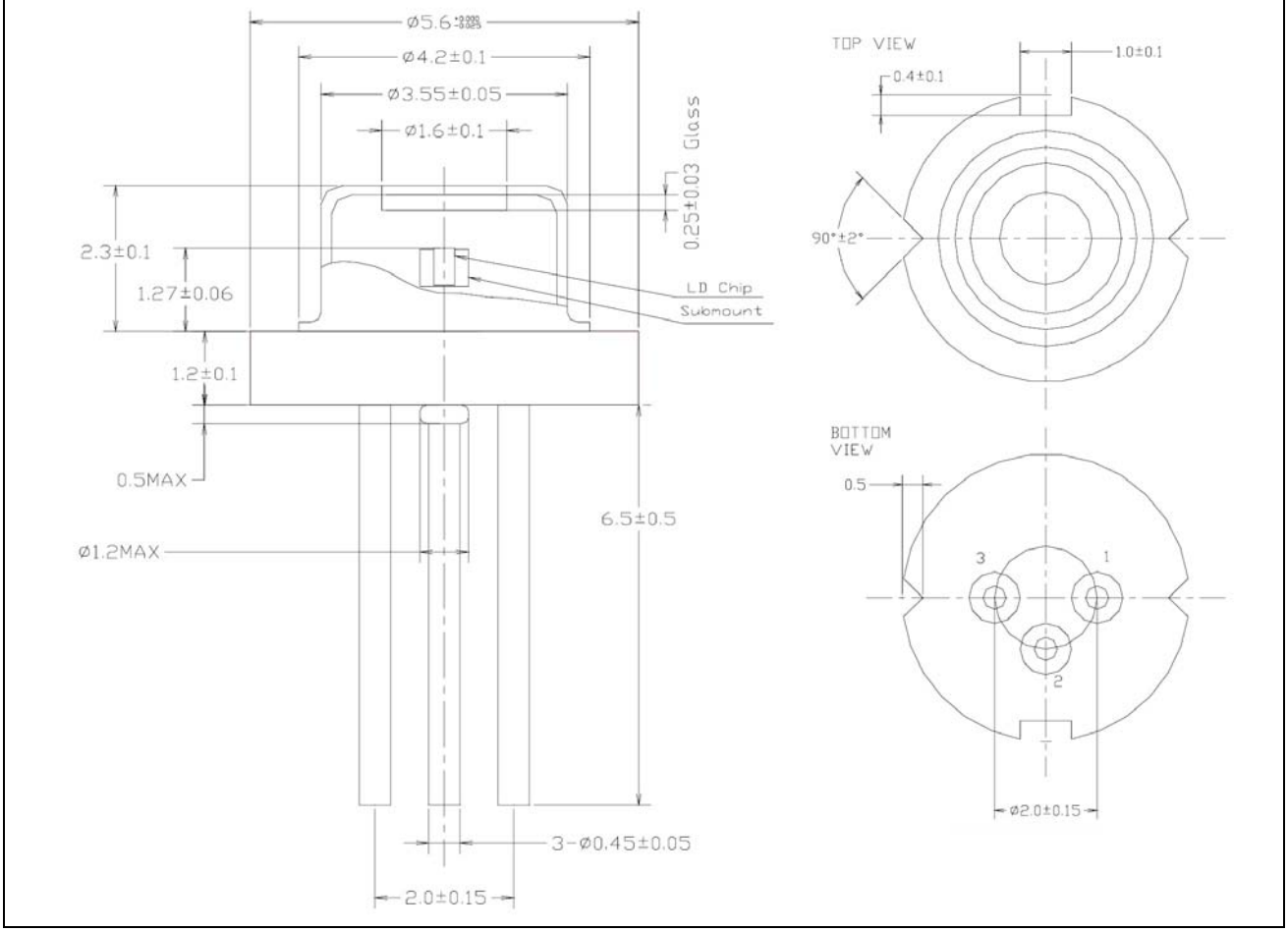
Package Dimensons

5.6 mm Package (*Unit:mm*)



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Cautions

1. Operating methode

- This LD shall change its forward voltage requirement and optical ouput power according to temperature change. Also, the LD will require more operation current to maintain same ouput power as it degrades. In order to maintain output power, use of APC (Automatic Power Control) is recommended. Which use monitor feedback to adjust the operation current.
- Confirm that electrical spike current generated by switching on and off does not exceed the maximum operating current level specified herein above as absolute maximum rating. Also, employ appropriat countermeasures to reduce chattering and/or overshooting in the circuit.

2. Static Electricity

- Static electricity or electrical surges will reduce and degrade the reliability of the LDs. It is recommended to use a wrist trap or anti-electrostatic glove when handeling the Product.

3. Absolute Maximum Rating

- Active layer of LDs shall have high current density and generate high electric field during its operation. In order to prevent excessive damage, the LD must be operated striclty below absolute maximum rating.