

Laser Diode (1550nm)

OS1550TO1815B

Features

- 1550nm 15W Pulse Laser Diode
- Build in fast axis
- Flat light window
- RoHS specifications

Application

Laser Range Finding

1. Parameter

Parameters(Temperature $T_{\text{Ambient}} = 25 \pm 5^{\circ}\text{C}$)

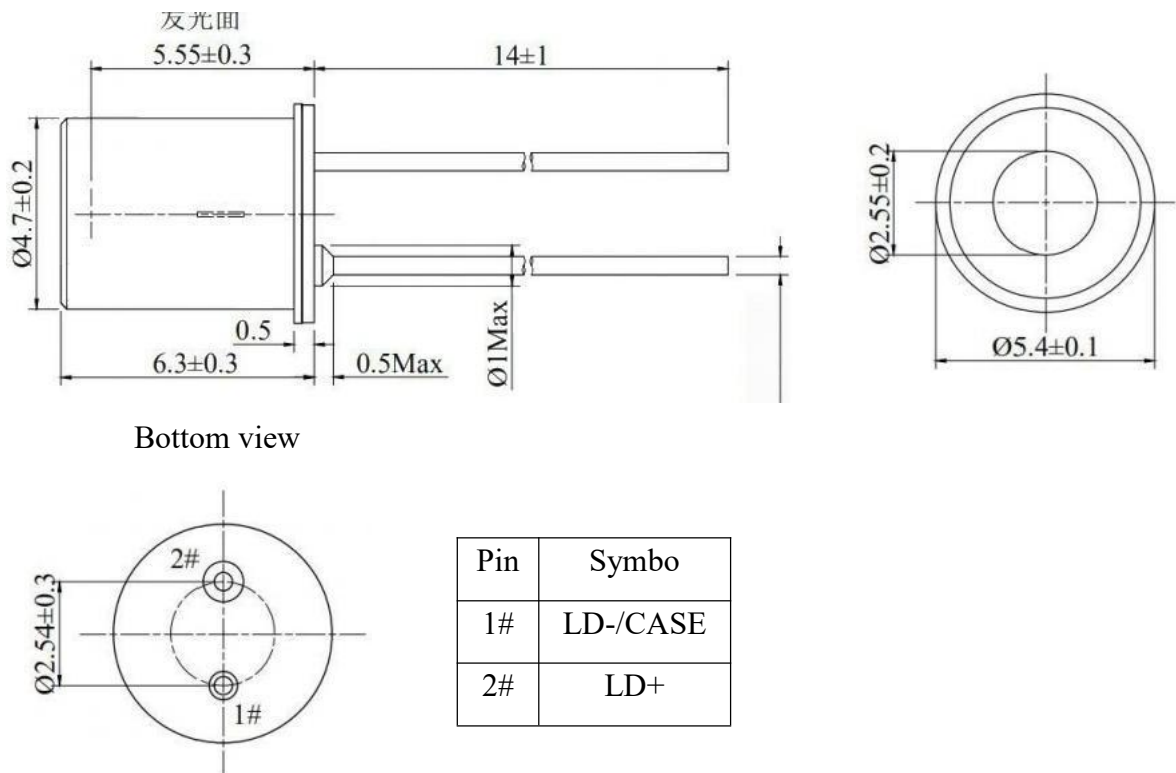
Parameters	Symbol	Unit	Min.	Max.
Storage Temperature	T_{Storage}	$^{\circ}\text{C}$	-40	85
Storage Humidity	RH	%	5	95
Operating temperature	T_{Ambient}	$^{\circ}\text{C}$	-40	70
Voltage	V_{RLD}	V	-	2
Pulse Width	PW	ns	-	150
Duty factor	Duty	%	-	0.1
Operating Current @100ns	I_{Max}	A	-	30
Lead soldering temperature	$T_{\text{Soldering}}$	$^{\circ}\text{C}$	-	260
Lead soldering time	$t_{\text{Soldering}}$	s	-	10

Optical Characteristics (Temperature $T_{\text{Ambient}} = 25 \pm 5^{\circ}\text{C}$)

Parameter	Symbol	Unit	Test condition	Min.	Typ.	Max.
Threshold Current	I_{th}	A	PW=100ns, Duty=0.01%	-	1.5	-
Output Power	P_{Peak}	W	PW=100ns, Duty=0.01%, $I_{\text{FLD}} = 25\text{A}$	10	15	-
Slope Efficiency	SE	W/A	PW=100ns, Duty=0.01%, $I_{\text{FLD}} = I_{\text{th}} \sim 30\text{A}$	-	0.6	-
Wavelength	λ_{C}	nm	PW=100ns, Duty=0.01%, $I_{\text{FLD}} = 25\text{A}$	1520	1550	1580

Wavelength Temperature Coefficient	$\Delta\lambda/\Delta T_{\text{Submount}}$	nm/°C	PW=100ns, Duty=0.01%, $I_{\text{FLD}}=25\text{A}$	-	0.5	-
Spectral Width	$\Delta\lambda$	nm	PW=100ns, Duty=0.01%, $I_{\text{FLD}}=25\text{A}$	-	-	15
Fast Axis Div.	$\theta_{\perp}$	mrad	-	-	3	5
Slow Axis Div.	$\theta_{\parallel}$	Deg	-	-	6	10
Emitting area	W•H	μm^2	-	-	100•4	-

2. Package Drawings



3. Laser Safety:

- When the product is working, there is laser emission. It is strictly prohibited to irradiate any part of the human body with laser.
- This product is an electrostatic sensitive device, please operate it in the electrostatic protection area, and ensure that the tools directly contacting with the device have been properly grounded; Improper operation and use will cause permanent and irreversible damage to the product.
- This product has an optical window. Please operate carefully during use and storage to avoid the optical window being dirty and damaged.