THORLABS INC
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DL3146-151
BLUE-VIOLET LASER DIODE

Features

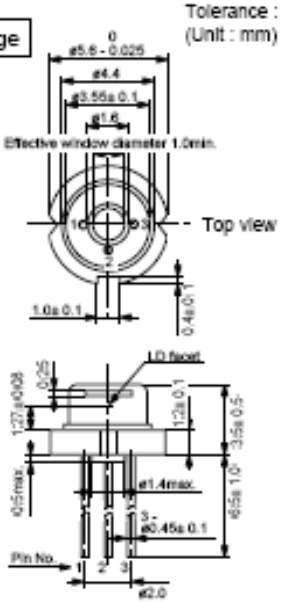
- Short wavelength : 405 nm (Typ.)
- Light Output: 5mW CW
- Low threshold current : Ith = 35 mA (Typ.)
- Package : ø5.6 mm

Applications

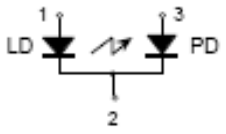
Industrial Use
Laser mobule

Package

Tolerance : ± 0.2
(Unit : mm)



Pin Connection



Absolute Maximum Ratings

(Tc=25°C)

Parameter		Symbol	Ratings	Unit
Light Output	CW	Po	7	mW
Reverse Voltage	Laser	VR	2	V
	PD		30	
Operating Temperature		Topr	0 to +60	°C
Storage Temperature		Tstg	-40 to +85	°C

Electrical and Optical Characteristics [1) 2)]

(Tc=25°C)

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		Ith	CW	-	35	55	mA
Operating Current		Iop	Po=5mW	-	40	60	mA
Threshold Voltage		Vth	CW	-	4.8	5.8	V
Operating Voltage		Vop	Po=5mW	-	5.0 [4)]	6.0	V
Lasing Wavelength		Lp	Po=5mW	395	405	415	nm
Beam Divergence [3)]	Perpendicular	Qv	Po=5mW	16	20	24	°
	Parallel	Qh	Po=5mW	6	8	14	°
Off Axis Angle	Perpendicular	dQv	-	-3	-	3	°
	Parallel	dQh	-	-2	-	2	°
Differential Efficiency		SE	-	0.5	0.8	-	mW/mA
Monitoring Output Current		Im	Po=5mW	0.1	0.2	1.0	mA

1) Initial values 2) All the above values are evaluated with Tottori Sanyo's measuring apparatus
3) Full angle at half maximum 4) Operating Voltage of this laser is higher than conventional laser(5.0V)

Note : The above product specification are subject to change without notice.

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Thorlabs, Inc. Life Support and Military Use Application Policy is stated below:

THORLABS' PRODUCTS ARE NOT AUTHORIZED FOR USE AS CRITICAL COMPONENTS IN LIFE SUPPORT DEVICES OR SYSTEMS OR IN ANY MILITARY APPLICATION WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE PRESIDENT OF THORLABS, INC. As used herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and whose failure to perform, when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury to the user.
2. A critical component is any component in a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system or to affect its safety or effectiveness.
3. The Thorlabs products described in this document are not intended nor warranted for usage in Military Applications.

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