
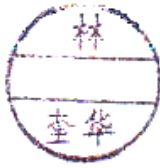


APPROVAL SHEET

(承认书)

ITEM: AD-52301 V1

版本 (Version) : ADPL-515
日期 (Date) : 2013-03-02

Prepared By (制订)	Confirmed By (确认)	Approved By (承认)
		
Date (日期)	Date (日期)	Date (日期)

GREEN LASER DIODE

AD-52301 V1

ADPL-515

515nm/30mW Green Laser Diode

Dimension

◆ Features

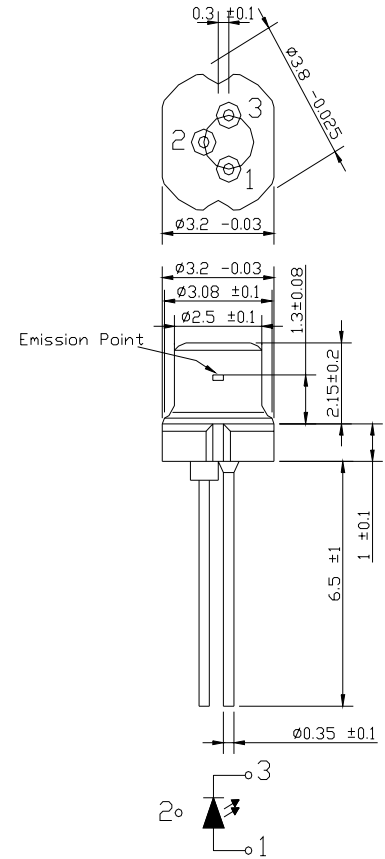
- Efficient radiation source for CW & PULSED mode operator
- Single transverse mode semiconductor laser diode
- High modulation bandwidth
- Miniaturized TO38 ICut package
- Laser diode isolated against package

◆ Applications

- Metrology
- Laser shows
- Biomedical applications
- Laser projection

◆ Absolute maximum ratings

Parameter	Symbol	Condition	Rating	Unit
Light output power	P_0	CW	30	mW
Reverse voltage (LD)	V_R	-	2	V
Case Temperature	T_C	-	0~+60	°C
Storage temperature	T_S	-	-40~+85	°C



◆ Electrical and optical characteristics

(TC=25°C)

Parameter	Symbol	Min	Typ.	Max.	Unit	Condition (CW)
Peak wavelength	λ	510	515	530	nm	$P_0 = 30\text{mW}$
Threshold current	I_{th}	-	50	75	mA	
Operating current	I_{op}	-	120	140	mA	
Operating voltage	V_{op}	-	6.7	8.0	V	
Parallel divergence angle		4.0	7.0	11.0	deg	$P_0 = 30\text{mW}$
Perpendicular divergence angle		16.0	22.0	25.0	deg	
Polarization	P_{gr}	20:1	-	-		
Modulation Frequency	f	>100	-	-	MHz	
Thermal resistance (junction to case)	R_{th}	-	38.0	-	K/W	

●Precautions

- * Do not operate the device above maximum ratings. Doing so may cause unexpected and permanent damage to the device.
- * Take precautions to avoid electrostatic discharge (ESD) and / or momentary power spikes. A change in the characteristics of the laser or premature failure may result.
- * The laser diode must be operated with a suitable power supply with minimized electrical noise.
- * Proper heat sinking of the device assures stability and lifetime. Always ensure the maximum operating temperatures are not exceeded.
- * Cause diode heat is dissipated only by the base plate of the diode's. A proper heat conducting interconnection between the diodes base plate and heat sink must be maintained.
- * Observing visible on invisible laser beams with the human eye directly, or indirectly, can cause permanent damage. Use a camera to observe the laser.
- * No laser device should be used in any application or situation where life or property is at risk in event of device failure.
- * Specifications are subject to change without notice. Ensure that you have the laser specification by contacting us prior to purchase or use of the product.
- * **Products which incorporate these devices have to follow the safety precautions found in IEC 60825-1 "safety of laser products".**

*For reference only. Contents above are subject to change without notice.