

AlGaInP Visible Laser Diode

ADC-6507B04

6-2D-LC65-004_Rev.00

650nm 7mW LD Chip on Submount

Features

Low operating current

Applications

For TO-type package

Laser pointers

Absolute maximum ratings

Parameter	Symbol	Condition	Rating	Unit
Light output power	P_O	Pulse ^{*2}	7 ^{*1}	mW
Reverse voltage (LD)	V_{RL}	-	2	V
Operation temperature	T_{op}	-	-10 ~ +70	°C
Storage temperature	T_S	-	-40 ~ +85	°C

*1 Lasers shall be used within the absolute maximum ratings. Exceeding these limits may damage the laser chip and this doesn't mean the guarantee its lifetime.

*2 Measure condition: Duty cycle less than 1% with pulse width less than 2 μ s

*3 Proper the heat sinking of the device assures stability and lifetime.

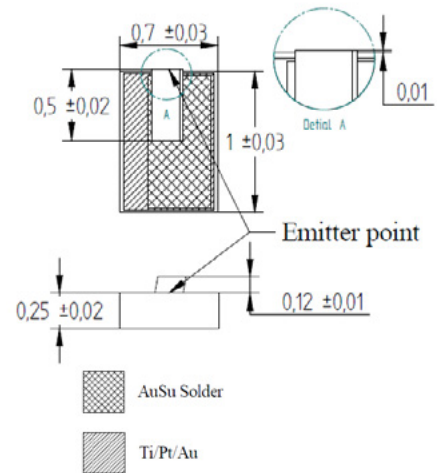
Electrical and optical characteristics ($T_C=25^\circ\text{C}$)^{*4}

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Peak wavelength	λ	645	655	660	nm	$P_O=7\text{mW}$
Threshold current	I_{th}	-	21	25	mA	-
Operating current	I_{op}	-	29	35	mA	$P_O=7\text{mW}$
Operating voltage	V_{op}	-	2.3	2.9	V	$P_O=7\text{mW}$
Differential efficiency	η	0.65	0.85	1.1	mW/mA	$P_O=5-7\text{mW}$
Parallel divergence angle	$\theta_{//}$	6	9	12	deg.	$P_O=7\text{mW}$
Perpendicular divergence angle	θ_{\perp}	25	28	32	deg.	$P_O=7\text{mW}$

*4 Measure condition: Duty cycle = 1% with pulse width = 2 μ s

• 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 and/or momentary power spikes. A change in the characteristics of the laser or premature failure may result.
- Proper heat sinking of the device assures stability and lifetime. Always ensure that maximum operating temperatures are not exceeded.
- Observing visible or 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 latest specification by contacting us prior to purchase or use of the product.



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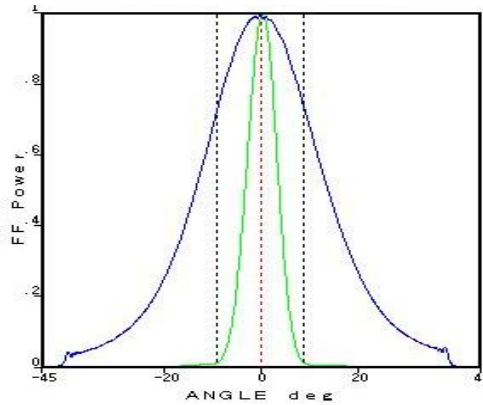
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