AlGaInP Red Laser Diode

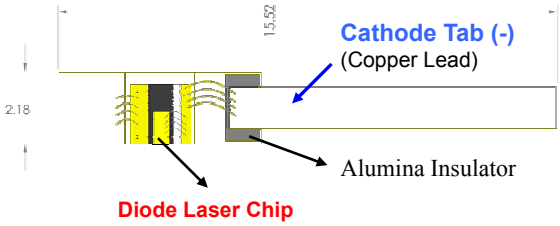
ADL-63X51CZ

6-2D-LD63-048 Rev.00

★635nm 0.35W 25 °C C-Mount PKG

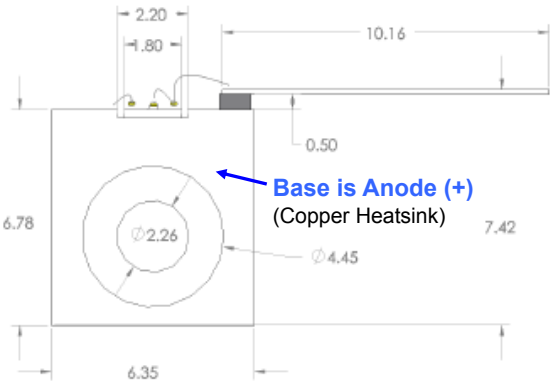
•Features

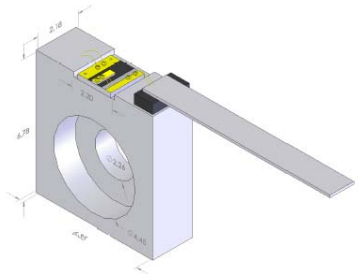
1. High power
2. High brightness
3. Long lifetime
4. Narrow spectral line-width
5. High polarization purity



•Applications

1. Laser display
2. PDT
3. Biochemistry
4. Military
5. Solid-state laser pumping
6. Material processing
7. Medical/Life and health sciences
8. Illumination





※ Dimensions are in mm.

•Absolute maximum ratings

Parameter	Symbol	Condition	Rating	Unit
Light output power	P_O	CW	400	mW
Reverse voltage (LD)	V_{RL}	-	2	V
Case temperature	T_C	-	-10~+25	°C
Storage temperature	T_S	-	-40~+85	°C

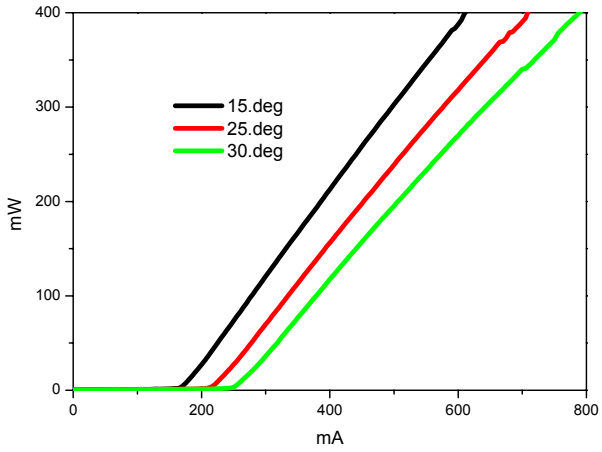
•Electrical and optical characteristics (T_c=25 °C)

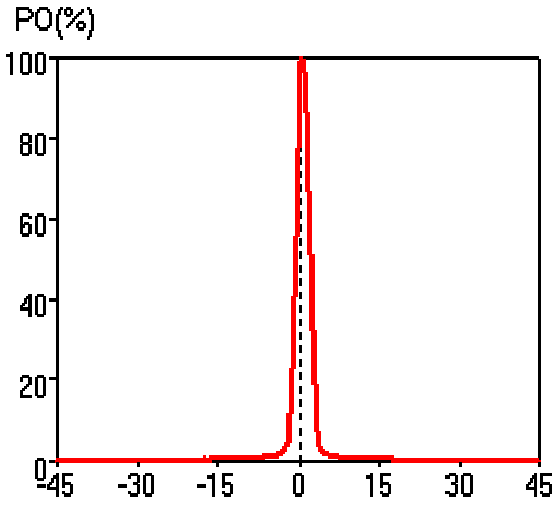
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Peak wavelength	λ	630	635	640	nm	
Wavelength Temperature Coefficient			0.25	0.3	nm/°C	
Emitter size		-	50	-	um	
Polarization			TM			
Threshold current	I_{th}	-	200	300	mA	
Operating current	I_{op}	-	640	850	mA	P_o=350mW
Operating voltage	V_{op}		2.6	3.0	V	P_o=350mW
Differential efficiency	η	-	0.8	-	mW/mA	P_o=20-200mW
Parallel divergence angle	$\theta_{//}$	-	3.5	12	deg	
Perpendicular divergence angle	$\theta_{\perp}$	30	36	40	deg	
Total conversion efficiency		-	28	-	%	

• Precautions

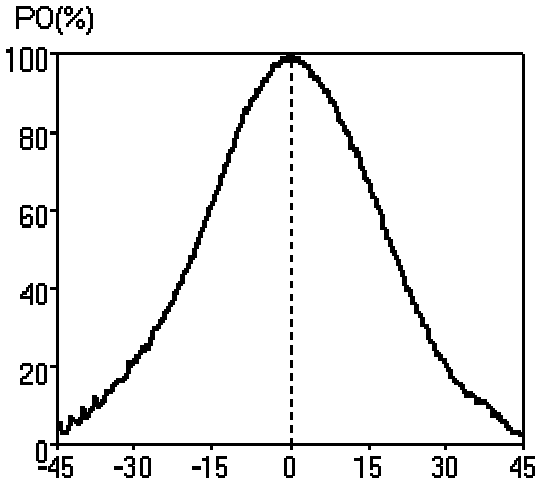
* Do not operate the device above maximum ratings. Doing so may cause unexpected and permanent damage to the device.
* Take precautions to avoid electrostatic discharge and/or momentary power spikes. A change in the characteristics of the laser or premature failure may result.
* Proper heat sinking of 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.

Arima LASERS


400
300
200
100
0
mW
15.deg
25.deg
30.deg
0
200
400
600
800
mA


PO(%)
100
80
60
40
20
0
-45
-30
-15
0
15
30
45

FFV


PO(%)
100
80
60
40
20
0
-45
-30
-15
0
15
30
45

FFH