

650nm 7mW 85 °C

High Temperature, Reliable Operation!

• Features

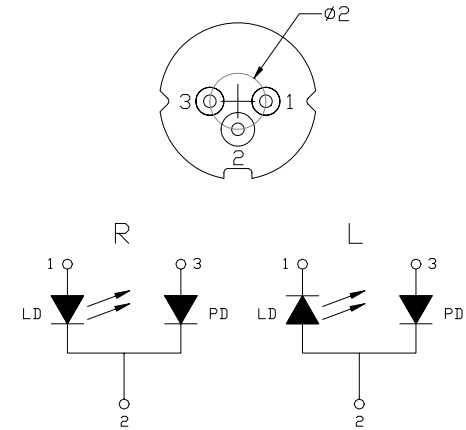
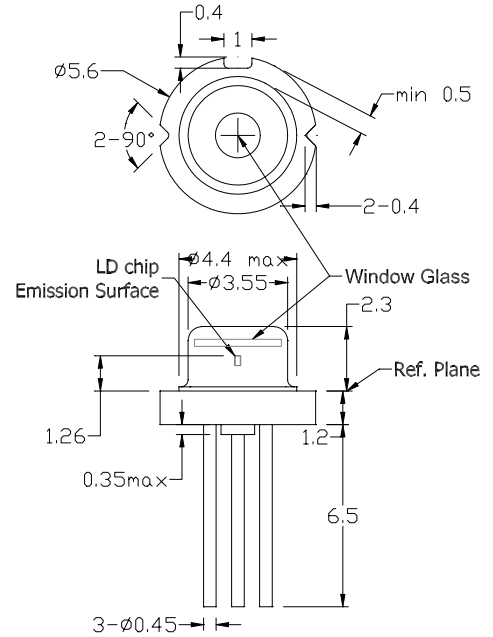
1. High temperature operation
2. Higher power
3. High reliability

• Applications

1. Automobile DVD
2. Bar code readers
3. High reliability laser instrument

• Absolute maximum ratings

Parameter	Symbol	Condition	Rating	Unit
Light output power	P _O	CW	10	mW
Reverse voltage (LD)	V _{RL}	-	2	V
Reverse voltage (PD)	V _{RD}	-	30	V
Forward current (PD)	I _{FD}	-	10	mA
Case temperature	T _C	-	-10~+85	°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	645	655	660	nm	P _o =7mW
Threshold current	I _{th}	-	20	30	mA	
Operating current	I _{op}	-	30	40	mA	P _o =7mW
Operating voltage	V _{op}	-	2.2	2.5	V	P _o =7mW
Differential efficiency	η	0.65	0.85	1.10	mW/mA	P _o =3-5mW
Monitor current	I _m	0.1	0.2	0.3	mA	P _o =7mW, V _{RD} =0V
Parallel divergence angle	$\theta_{//}$	6	9	12	deg	P _o =7mW
Perpendicular divergence angle	θ_{\perp}	25	28	32	deg	
Parallel FFP deviation angle	$\Delta \theta_{//}$	-3	0	+3	deg	
Perpendicular FFP deviation angle	$\Delta \theta_{\perp}$	-3	0	+3	deg	
Emission point accuracy	$\Delta x \Delta y \Delta z$	-80	0	+80	um	

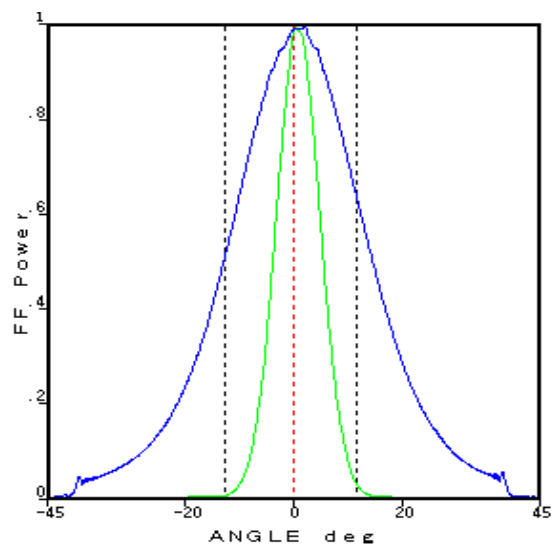
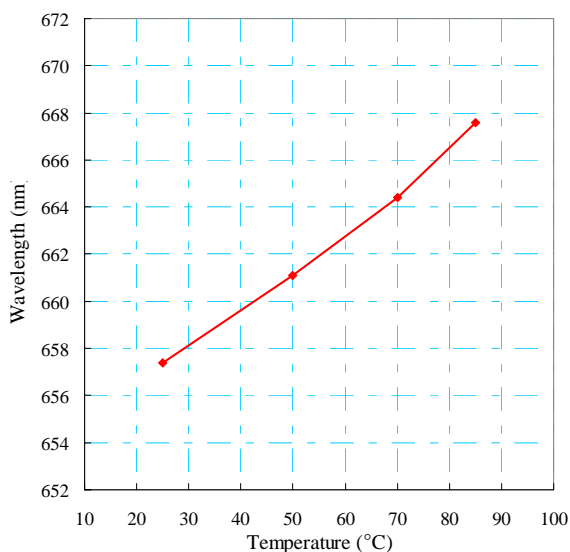
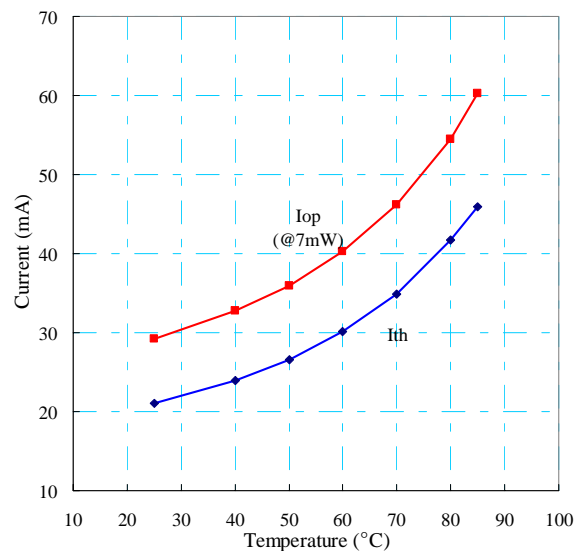
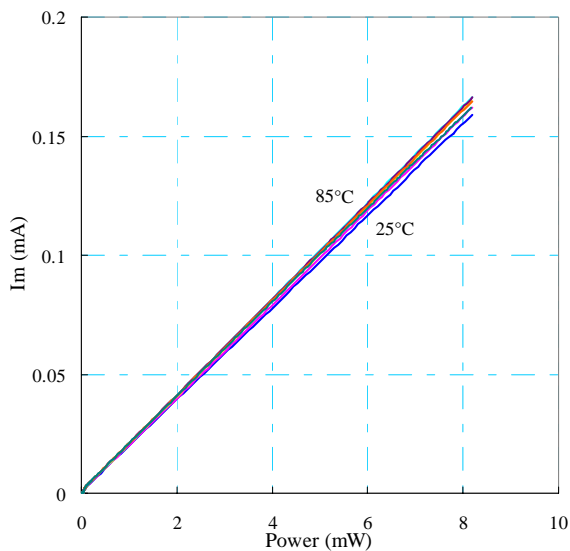
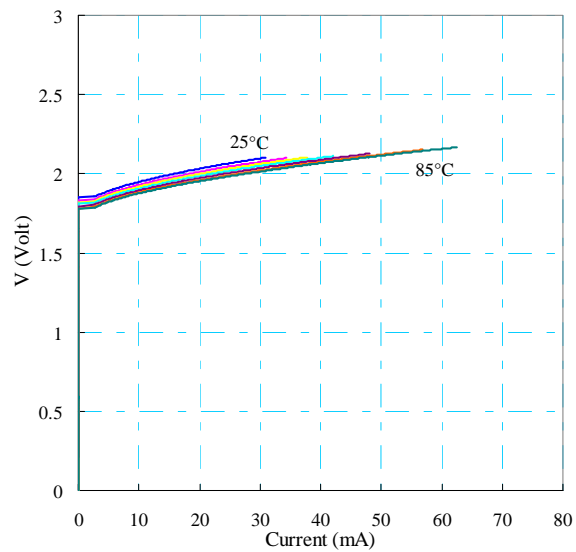
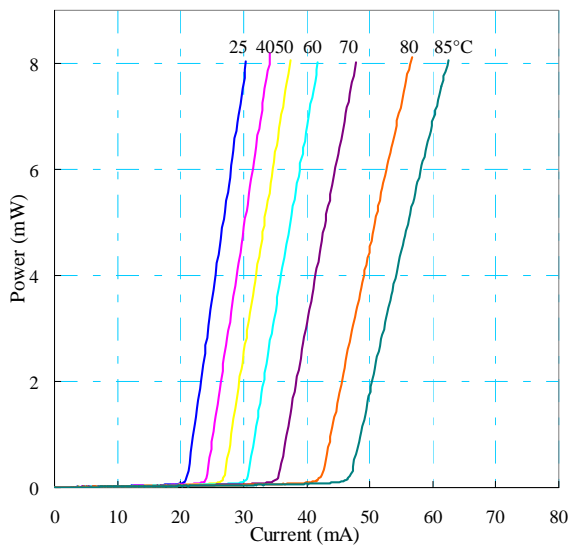
• Precautions

1. Do not operate the device above the maximum rating condition, even momentarily. It may cause unexpected permanent damage to the device.
2. Semiconductor laser device is very sensitive to electrostatic discharge. High voltage spike current may change the characteristics of the device, or malfunction at any time during its service period. Therefore, proper measures for preventing electrostatic discharge are strongly recommended.
3. Effective heat sink can help the device operates under a more relax condition; as a result, a more stable characteristics and better reliability can be achieved. So it is recommended that always apply proper heat sink before the device is operating.
4. Do not look into the laser beam directly by bare eyes. The laser beam may cause severe damage to human eyes.

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

AlGaInP Visible Laser Diode

ADL-65074TR/L



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