

650nm 7mW 70°C Reliable Operation Ideal for DVD optical pick-up head

Features

Low operating current

Higher power

High efficiency

Applications

DVD player/ROM optical pick up

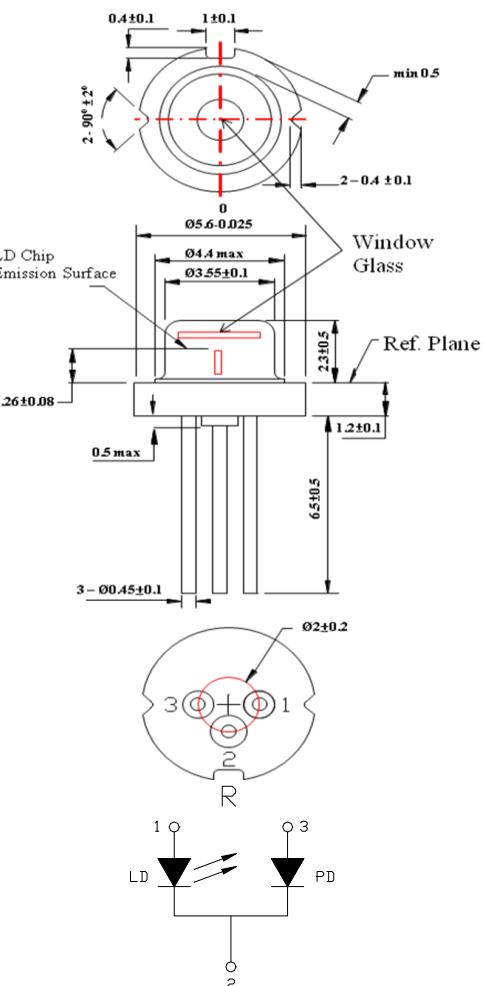
Combo drive optical pick up

Bar code scanner

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 _{RL}	-	30	V
Case temperature	T _c	-	-10~+70	°C
Storage temperature	T _s	-	-40~+85	°C

6-2D-LD65-098 Rev.00



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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Peak wavelength	λ	645	650	660	nm	$P_o=7\text{ mW}$
Threshold current	I _{th}	-	20	25	mA	
Operating current	I _{op}	-	25	35	mA	$P_o=7\text{ mW}$
Operating voltage	V _{op}	-	2.2	2.5	V	$P_o=7\text{ mW}$
Differential efficiency	η	0.6	1.0	1.2	mW/mA	$P_o=3\text{-}5\text{ mW}$
Monitor current	I _m	0.05	0.15	0.35	mA	$P_o=7\text{ mW}, V_{RD}=5\text{V}$
Parallel divergence angle	$\theta_{//}$	6	9	12	deg.	
Perpendicular divergence angle	θ_{\perp}	25	28	32	deg.	
Parallel FFP deviation angle	$\Delta \theta_{//}$	-3	0	+3	deg.	$P_o=7\text{ mW}$
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

- * 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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LASERS

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