DATE: 2007/09/14 Ver 2.0

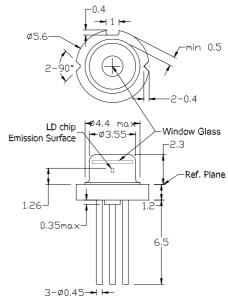
850nm 5mW 5.6 φ TO-Type Laser Diode

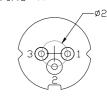
Features

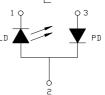
- 1. Low operation current
- 2. Cost effective

Applications

- 1. Bar-code scanner
- 2. Laser printer
- 3. Military







Absolute maximum ratings

Parameter	Symbol	Condition	Rating	Unit
Light output power	Po	CW	5	mW
Reverse voltage (LD)	V_{RL}	-	3.5	V
Reverse voltage (PD)	V_{RD}	-	30	V
Forward current (PD)	I _{FD}	-	10	mA
Case temperature	T _C	-	-10~+50	°C
Storage temperature	T _S	-	-40~+85	°C

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

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions	
Peak wavelength	λ	840	845	850	nm	P _o =5mW	
Threshold current	I _{th}	-	19	25	mA		
Operating current	l _{op}	-	26	35	mA	P _o =5mW	
Operating voltage	$V_{\sf op}$	-	1.8	2.0	V	Po=5mW	
Differential efficiency	η	0.5	0.9	1.1	mW/mA	P _o =3-5mW	
Monitor current	l _m	0.4	0.6	0.8	mA	P _o =5mW, V _{RD} =5V	
Parallel divergence angle	$ heta_{\scriptscriptstyle /\!/}$	6	9	12	degree		
Perpendicular divergence angle	$ heta$ $_{\perp}$	27	32	36	degree	P₀=5mW	
Parallel FFP deviation angle	$\Delta~ heta$ #	-3	-	+3	deg		
Perpendicular FFP deviation angle	$\Delta~ heta_{\perp}$	-3	-	+3	deg		
Emission point accuracy	$\Delta \mathbf{x} \Delta \mathbf{y}$	-80	-	+80	um		
	ΔZ	-40	-	+40	um		

- 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.

