

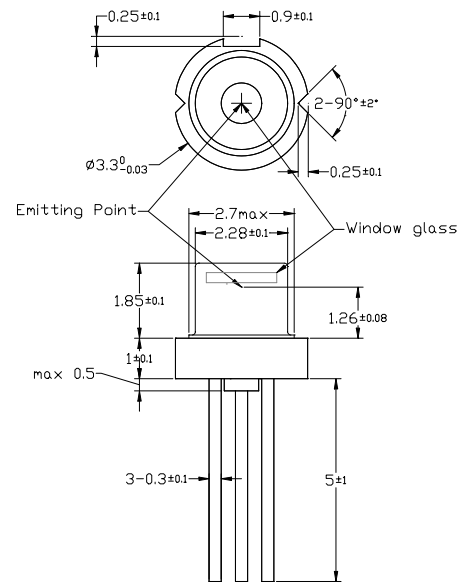
3.3mm Mini Package! 7mW Reliable Operation

• Features

1. Smallest package
2. Low operating current

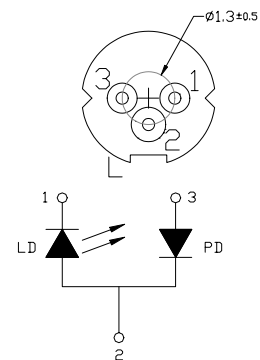
• Applications

1. Mini size optical modules
2. Laser sensor



• Absolute maximum ratings

Parameter	Symbol	Condition	Rating	Unit
Light output power	P _O	CW	8	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~+70	°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		645	655	660	nm	P _O =7mW
Threshold current	I _{th}	-	20	25	mA	P _O = 1~2mW
Operating current	I _{op}	-	25	35	mA	P _O =7mW
Operating voltage	V _{op}	-	2.2	2.5	V	P _O =7mW
Differential efficiency		0.7	0.9	1.2	mW/mA	P _O =5-7mW
Monitor current	I _m	0.1	0.2	0.3	mA	P _O =7mW, V _{RD} =5V
Parallel divergence angle	//	6	9	12	deg	P _O =7mW
Perpendicular divergence angle		25	28	32	deg	
Parallel FFP deviation angle	//	-3	0	+3	deg	
Perpendicular FFP deviation angle		-3	0	+3	deg	
Emission point accuracy	x y 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

