

Features

- Optical Output Power: 20mW
- Can Type: ϕ 5.6 mm with Photo Diode
- Peak Wavelength: 405nm

Absolute Maximum Ratings

(Tc=25°C)

Item	Symbol	Absolute Maximum Ratings	Unit
Optical Output Power	Po	20	mW
LD Reverse Voltage	Vr (LD)	2	V
PD Reverse Voltage	Vr (PD)	4.8	V
Storage Temperature	Tstg	-40 ~ 85	°C
Operating Case Temperature	Tc	-10 ~ 80	°C

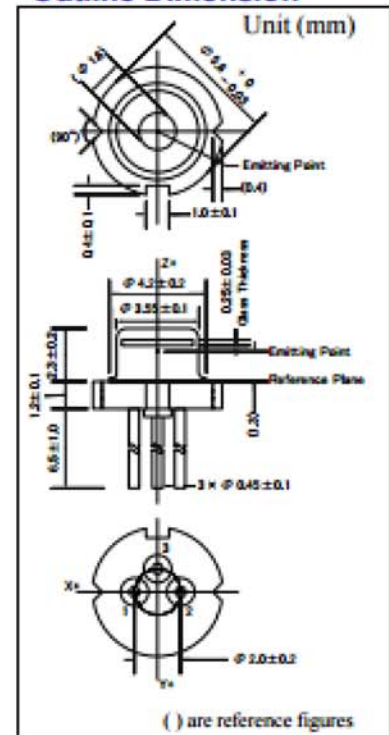
Initial Electrical/Optical Characteristics

(Tc=25°C)

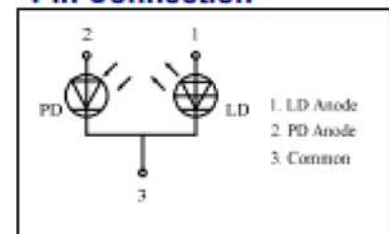
Item	Condition	Symbol	Min	Typ.	Max	Unit
Optical Output Power	CW	Po	-	20	-	mW
Peak Wavelength*	Po=5mW	λ_p	400	405	410	nm
Threshold Current	CW	Ith	-	15	32	mA
Operating Current	Po=20mW	Iop	-	15	32	mA
Slope Efficiency	CW	η	0.9	1.2	1.8	W/A
Operating Voltage	Po=20mW	Vop	-	4.8	5.2	V
FWHM Beam Divergence*	Po=5mW	$\theta_{//}$	7	9	12	deg.
		θ_{\perp}	15	19	23	deg.
Emission Point Accuracy	Po=5mW	$\Delta\theta_{//}$	-2.0	-	2.0	deg.
		$\Delta\theta_{\perp}$	-2.5	-	2.5	deg.
Monitor Current	Po=20mW	Im	0.2	0.6	1.0	mA

* Measuring specifications

Outline Dimension



Pin Connection



Cautions

(1) Safety of Laser light

- Laser beam are extremely dangerous to human eyes. Never look at laser beam directly and/or through optical lens. When handling the LDs, wear appropriate safety glasses to prevent laser light, even any reflections from entering to the eye. Focused laser beam through optical instruments will increase the chance of eye hazard.
- Sony LDs are classified in Class 3B of IEC60825-1 and 21 CFR Part 1040.10 Safety Standards. It is absolutely necessary to take overall safety measures against User's modules, equipment and systems into which Sony LDs are incorporated and/or integrated.

(2) Operating method

- The LD shall change its forward voltage requirement and optical output power according to temperature change. Also, the LD will require more operation current to maintain same output power as it degrades. In order to maintain output power, use of APC (Automatic Power Control) is recommended, which use monitor feedback to adjust the operation current.
- Confirm that electrical spike current generated by switching on and off does not exceed the maximum operating current level specified herein above as absolute max rating. Also, employ appropriate countermeasures to reduce chattering and/or overshooting in the Circuit.

(3) Static Electricity

- Static electricity or electrical surges will reduce and degrade the reliability of the LDs. It is recommended to use a wrist strap or anti-electrostatic glove when handling the Product.

(4) Absolute Maximum Rating

- Active layer of LDs shall have high current density and generate high electric field during its operation. In order to prevent excessive damage, the LD must be operated strictly below Absolute Max Rating.

