

Red Laser Diode

■ Features

- (1) Wavelength : 638 nm(Typ.)
- (2) Optical power output :
CW 185mW
- (3) Oscillation transverse mode : Single mode
- (4) Φ 5.6mm CAN package

■ Applications

- (1) Display
- (2) Barcode scanner
- (3) Laser sensor
- (4) other application

■ Absolute Maximum Ratings

(Tc=25°C ※¹)

Parameter	Symbol	Ratings	Unit	
Optical power output	Po	(Tc=25°C)	185	mW
		(Tc=60°C) ※ ¹	120	mW
Reverse voltage	Vr1	2	V	
Operating temperature ※ ¹	Top(c)	-10 ~ +60	°C	
Storage temperature	Tstg	-40 ~ +85	°C	
Soldering Temperature ※ ²	Tsld	350	°C	

※¹ Tc : Case temperature

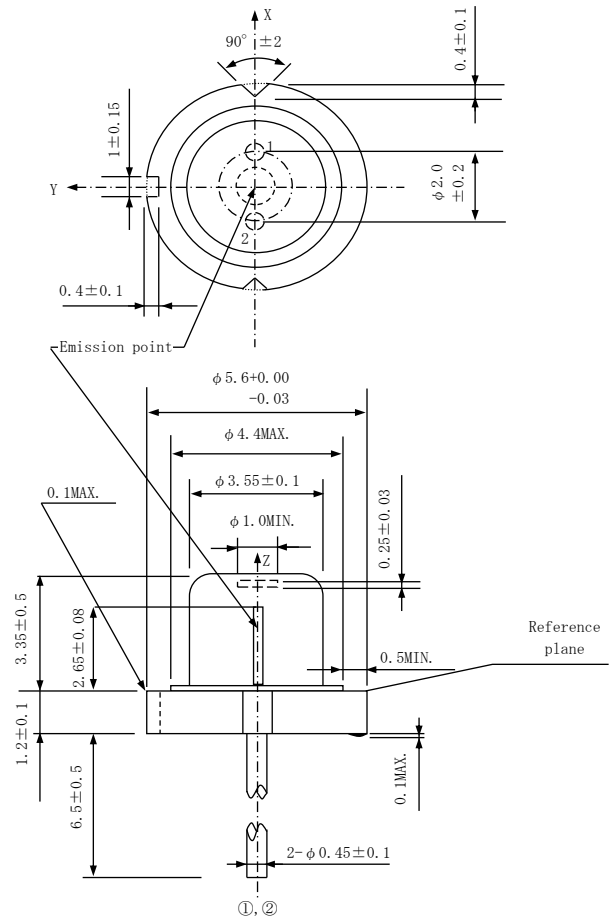
※² Soldering temperature means soldering iron tip temperature.

Soldering position is 1.6mm apart from bottom edge of the case.

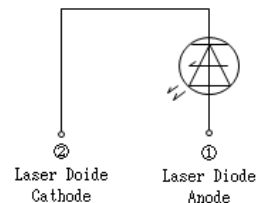
(Immersion time: ≤ 3s)

■ Outline Dimensions

(Unit: mm)



[Terminal connection]



(Notice)

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■ Specifications

(Tc=25°C ※¹ ※²)

Parameter	Symbol	Contitions	MIN.	TYP.	MAX.	Unit	
Threshold current	I _{th}	-	-	70	-	mA	
Operating current	I _{op}	Po=180mW	-	215	-	mA	
Operating voltage	V _{op}		-	2.55	-	V	
Wavelength	λ _p		635	638	643	nm	
Half intensity angle	Parallel		θ //	4	8	12	°
	※ ³ ※ ⁴ Perpendicular		θ ⊥	8	13	18	°

※¹ Tc : Case temperature

※² Initial value, Continuous Wave Operation

※³ Angle of 50% peak intensity (Full angle at half-maximum)

※⁴ Parallel to the junction plane (X-Z plane)

Perpendicular to the junction plane (Y-Z plane)

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(Precautions)

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- * OA equipment * Audio visual equipment * Home appliance
- * Telecommunication equipment (Terminal) * Measuring equipment
- * Tooling machines * Computers

If the use of the product in the above application areas is for equipment listed in paragraphs (3) or (4), please be sure to observe the precautions given in those respective paragraphs.

(3) Appropriate measures, such as fail-safe design and redundant design considering the safety design of the overall system and equipment, should be taken to ensure reliability and safety when this product is used for equipment which demands high reliability and safety in function and precision, such as ;

- * Transportation control and safety equipment (aircraft, train, automobile etc.)
- * Traffic signals * Gas leakage sensor breakers * Rescue and security equipment
- * Other safety equipment

(4) Please do not use this product for equipment which require extremely high reliability and safety in function and precision, such as ;

- * Space equipment * Telecommunication equipment (for trunk lines)
- * Nuclear power control equipment * Medical equipment

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