

# SPECIFICATIONS

## Laser Diode

### GH16P32C8C



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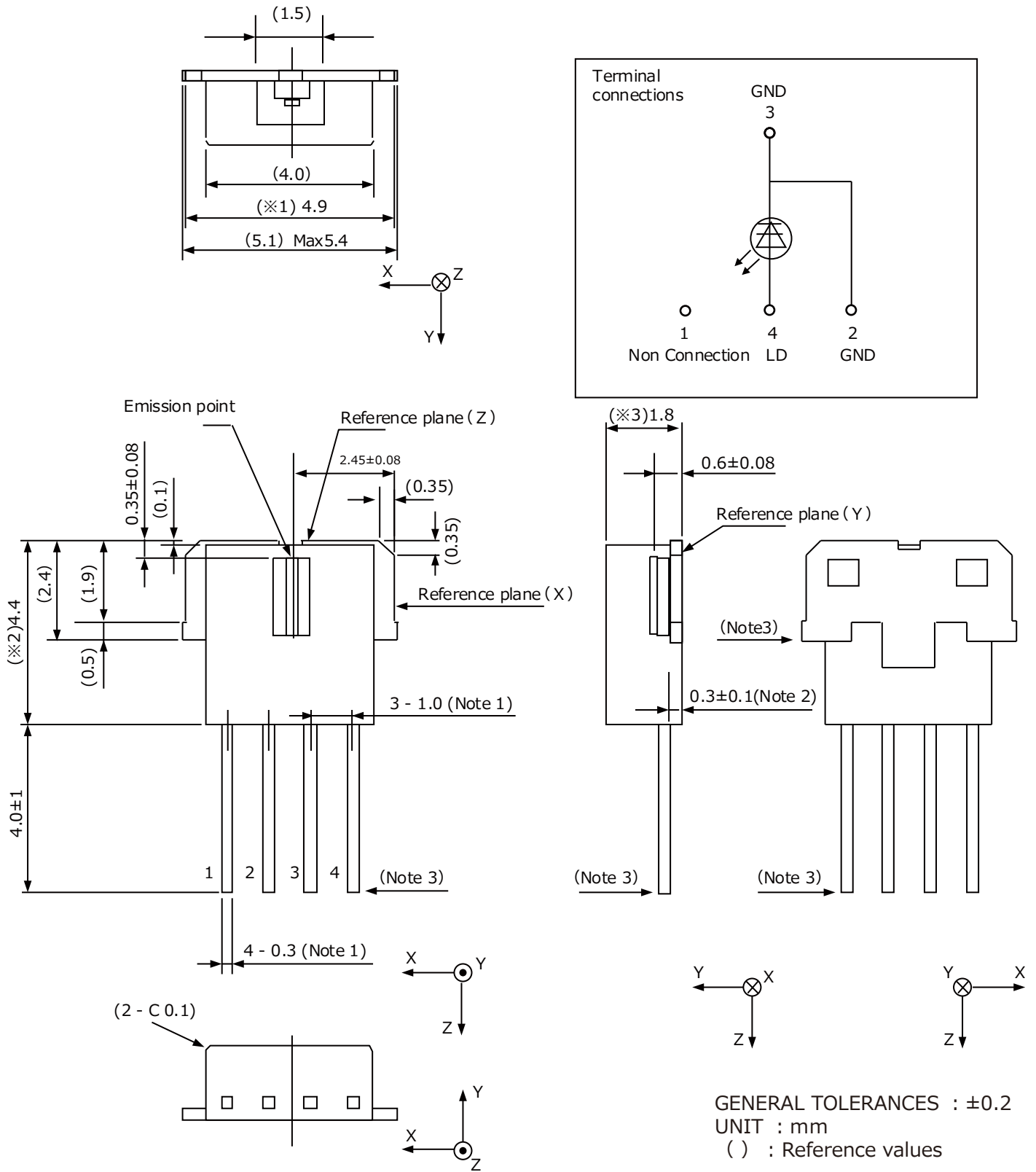
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## ■ Outline dimensions and Terminal connections



- Note 1) Dimension of the bottom of lead pins.
- Note 2) 0.3±0.1(mm) thickness lead frame board is used.
- Note 3) Cutting section of lead frame is no Ag plating.

## ■ Ratings and Characteristics

### Absolute Maximum Ratings

(Tc=25°C(Note 1))

Parameter		Symbol	Value	Unit
Optical power output	CW	P <sub>o</sub>	100	mW
Reverse voltage	Laser diode	V <sub>rl</sub>	2	V
Operating temperature	CW Operation(Note 2)	T <sub>op</sub> (c)	-10 ~ +70	°C
Storage temperature		T <sub>stg</sub>	-40 ~ +85	°C
Soldering temperature (Note 3)		T <sub>sld</sub>	350	°C

(Note 1) T<sub>c</sub> : Case temperature (Frame heat radiation part temperature)

(Note 2) CW Operation : Continuous Wave Operation

(Note 3) Soldering temperature means soldering iron tip temperature while soldering.

(The Power of soldering iron must be 50W or below.)

Soldering position is 2mm apart from bottom edge of the case.(Immersion time: 5s)

## ■ Electro-optical Characteristics of laser diode (Note 1)

(Tc=25°C(Note 1))

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Threshold current	I <sub>th</sub>	-	-	42	70	mA
Operating current	I <sub>op</sub>	P <sub>o</sub> = 90 mW	-	120	165	mA
Operating voltage	V <sub>op</sub>		-	2.3	3.2	V
Wavelength	λ <sub>p</sub>		652	661	666	nm
Half Intensity Angle(Parallel)(Note 2,3)	θ <sub>  </sub>		8	9.3	11.5	°
Half Intensity Angle(Perpendicular)(Note2,3)	θ <sub>⊥</sub>		13.5	15.0	19.0	°
Beam Tilt Angle (Parallel) (Note 3)	Δθ <sub>  </sub>		-3	-	+3	°
Beam Tilt Angle (Perpendicular) (Note 3)	Δθ <sub>⊥</sub>		-3	-	+3	°
Ripple (Note 4)	RI		-20	-	+20	%
Differential efficiency	η <sub>d</sub>		$\frac{80\text{mW}}{I(90\text{mW})-I(10\text{mW})}$	0.80	1.16	-

(Note 1) Initial value, Continuous Wave Operation

(Note 2) Angle of 50% peak intensity (Full angle at half-maximum)

Half intensity angle of parallel and perpendicular are to be within the pentagon

(Note 3) Parallel to the junction plane(X-Z plane)

Perpendicular to the junction plane(Y-Z plane)

(Note 4)  $RI \equiv \Delta P/P$

ΔP:the maximum deviation of the far field pattern from its approximate curve

P:the peak of the approximate curve

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