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# HL6319G

InGaAsP Laser Diodes

# HITACHI

ADE-208-479B (Z)

3rd. Edition

June 1997

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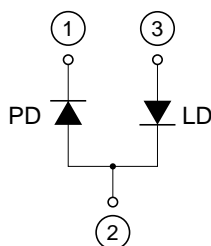
## Application

- Laser levelers
- Measurement

## Features

- Optical power : 10mW CW
- Visible wavelength :  $\lambda_p=635\text{nm}$  typ.

## Internal Circuit



## HL6319G

### Absolute Maximum Ratings ( $T_c = 25^\circ\text{C}$ )

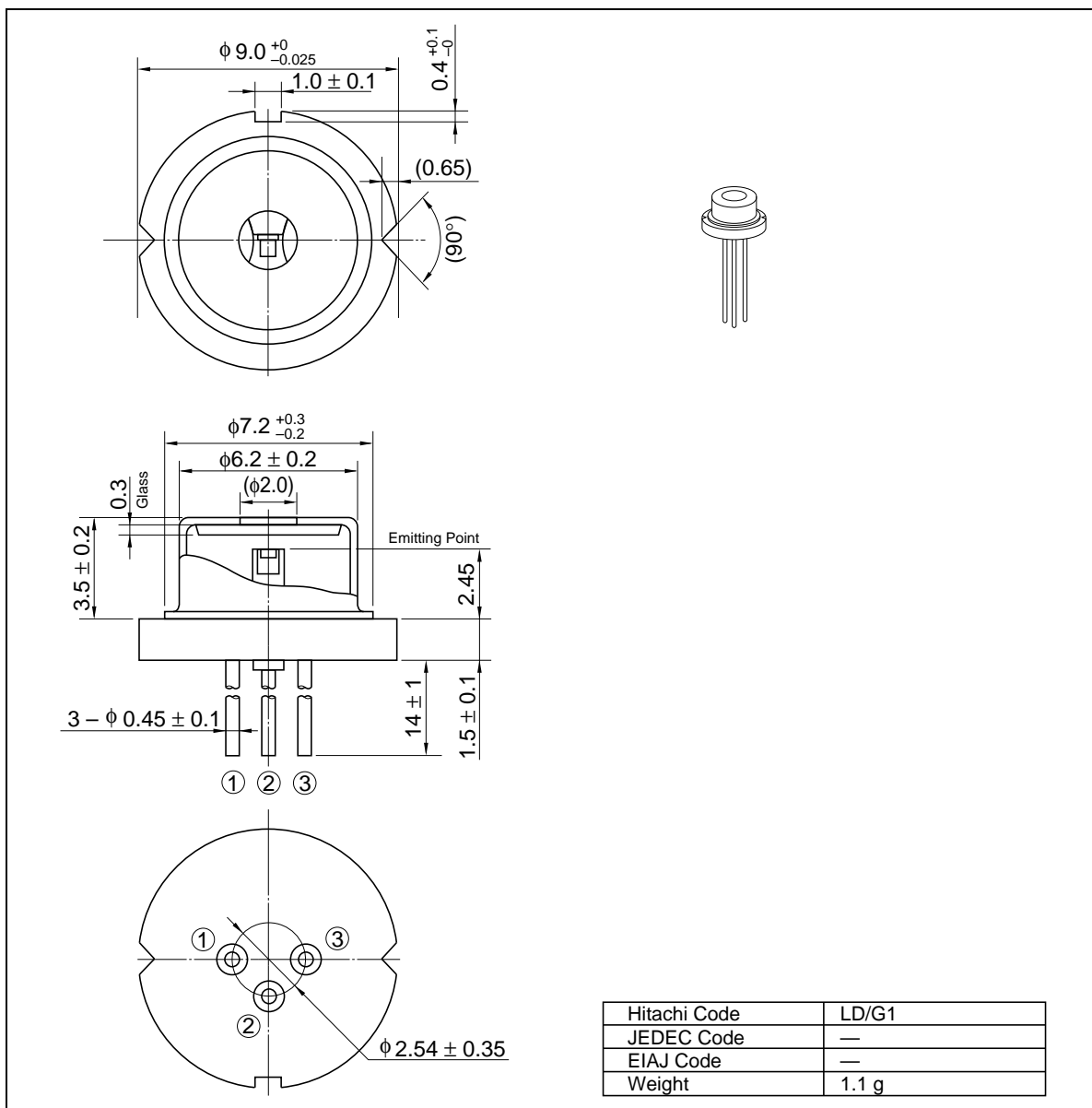
Item	Symbol	Value	Unit
Optical output power	$P_o$	10	mW
LD reverse voltage	$V_{R(LD)}$	2	V
PD reverse voltage	$V_{R(PD)}$	30	V
Operating temperature	$T_{opr}$	-10 to +50	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-40 to +85	$^\circ\text{C}$

### Optical and Electrical Characteristics ( $T_c = 25^\circ\text{C}$ )

Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Optical output power	$P_o$	10	—	—	mW	Kink free
Threshold current	$I_{th}$	20	—	75	mA	
Operating current	$I_{op}$	—	—	95	mA	$P_o = 10 \text{ mW}$
Operating voltage	$V_{op}$	—	—	2.7	V	$P_o = 10 \text{ mW}$
Slope efficiency	$\eta_s$	0.3	—	0.7	mW/mA	$6(\text{mW})/(I(8\text{mW})-I(2\text{mW}))$
Lasing wavelength	$\lambda_p$	625	635	640	nm	$P_o = 10 \text{ mW}$
Beam divergence (parallel)	$\theta_{//}$	5	8	11	deg.	$P_o = 10\text{mW}$
Beam divergence (perpendicular)	$\theta_{\perp}$	25	31	37	deg.	$P_o = 10 \text{ mW}$
Monitor current	$I_s$	0.05	0.17	0.30	mA	$P_o = 10\text{mW}$ , $V_{R(PD)}=5\text{V}$

Package Dimensions

Unit: mm



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