
HL6319G

InGaAsP Laser Diodes

HITACHI

ADE-208-479B (Z)
3rd. Edition
June 1997

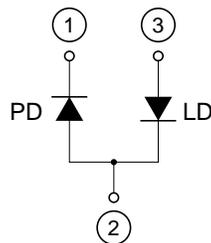
Application

- Laser levelers
- Measurement

Features

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

Internal Circuit



HL6319G

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

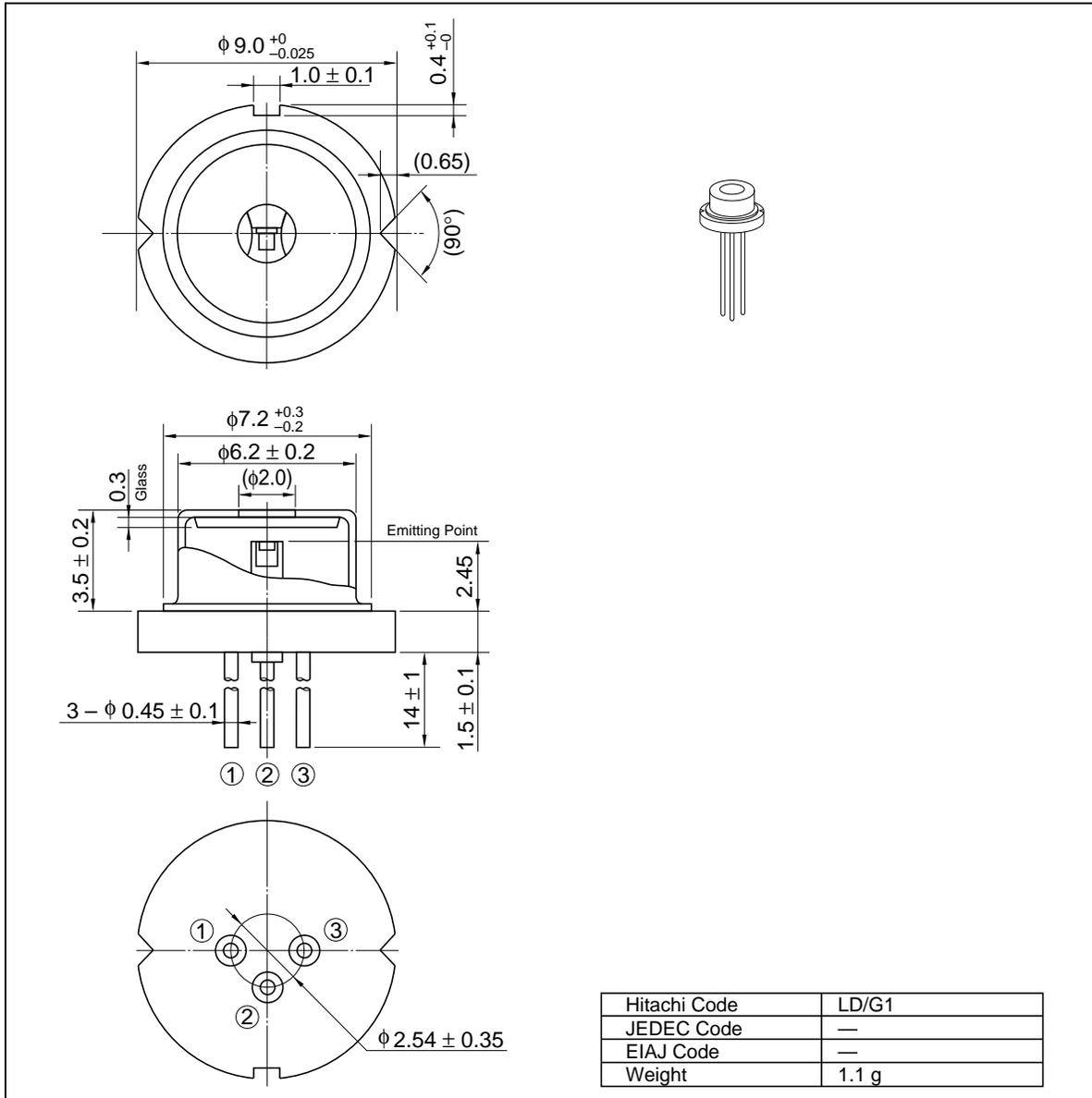
Item	Symbol	Value	Unit
Optical output power	P_o	10	mW
LD reverse voltage	$V_{R(LD)}$	2	V
PD reverse voltage	$V_{R(PD)}$	30	V
Operating temperature	T_{opr}	-10 to +50	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +85	$^\circ\text{C}$

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	η_s	0.3	—	0.7	mW/mA	$6(\text{mW})/(I(8\text{mW})-I(2\text{mW}))$
Lasing wavelength	λ_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)	θ_{\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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