

HLP5600

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InGaAsP LD

Description

HLP5600 is a 1.3 μm InGaAsP laser diode with double heterojunction structure.

It is suitable as a light source in high-bit-rate, long-distance fiberoptic communications and various other types of optical equipment.

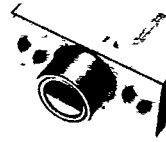
Monitoring power is output from the glass rod as optical output power.

Features

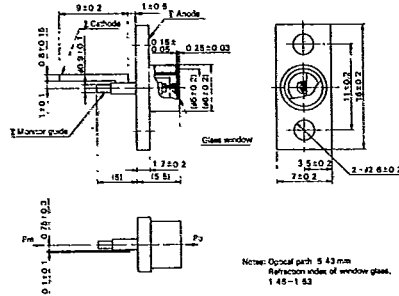
- Long wavelength light output:
λ_p = 1270–1330 nm
- 5 mW CW operation at room temperature
- Fast pulse response: t_r, t_f ≤ 0.5 ns

HITACHI/(OPTOELECTRONICS)

T-41-05
F-18-09



Package Dimensions

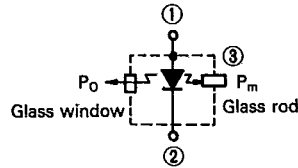


Note: Optical path: 5.43 mm
Refraction index of window glass: 1.45–1.53

(Unit: mm)

C-type

Internal Circuit



Absolute Maximum Ratings (T_C = 25°C)

| Items | Symbols | Values | Units |
|-----------------------|------------------|------------|-------|
| Optical output power | P _O | 5 | mW |
| Reverse voltage | V _R | 2 | V |
| Operating temperature | T _{opr} | 0 to +50 | °C |
| Storage temperature | T _{stg} | -40 to +60 | °C |

Optical and Electrical Characteristics (T_C = 25°C)

| Items | Symbols | min. | typ. | max. | Units | Test conditions |
|---|-----------------|------|------|------|-------|--|
| Threshold current | I _{th} | | 30 | 80 | mA | |
| Optical output power | P _O | 5 | | | mW | Kink free |
| | | 1.5 | 3.0 | | mW | I _F = I _{th} + 20 mA |
| Monitor power | P _m | 0.5 | | | mW | I _F = I _{th} + 20 mA |
| Lasing wavelength | λ _p | 1270 | 1300 | 1330 | nm | P _O = 3 mW |
| Spectral width | Δλ | | 2 | | nm | P _O = 3 mW |
| Beam divergence parallel to the junction | θ _∥ | | 30 | | deg. | P _O = 3 mW, FWHM |
| Beam divergence perpendicular to the junction | θ _⊥ | | 40 | | deg. | P _O = 3 mW, FWHM |
| Rise time | t _r | | | 0.5 | ns | |
| Fall time | t _f | | | 0.5 | ns | |

