

# HLP 1400

## Bulk active zone

### HLP1400

Maintenance only

GaAlAs Laser Diode

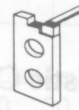
#### Description

The HLP1400 is a double heterojunction 0.8  $\mu\text{m}$  band GaAlAs laser diode. It is appropriate for use in a wide variety of optical application equipment, including optical fiber communications and optical disk memory systems.

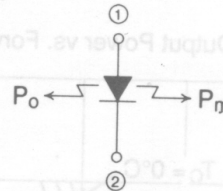
#### Features

- Infrared wavelength output:  $\lambda_p = 800$  to  $850$  nm
- Standard continuous output: 15 mW (CW)
- Single longitudinal mode lasing

Package Type  
• HLP1400: A2



Internal Circuit



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

Item	Symbol	Rated Value	Unit
Optical output power	$P_O$	15	mW
Pulse optical output power	$P_O$ (pulse)	$18^{*1}$	mW
Reverse voltage	$V_R$	2	V
Operating temperature	$T_{opr}$	0 to +60	$^\circ\text{C}$
Storage temperature	$T_{stg}$	0 to +80	$^\circ\text{C}$

Note: 1. At a duty cycle under 50% and pulse widths under  $1\mu\text{s}$

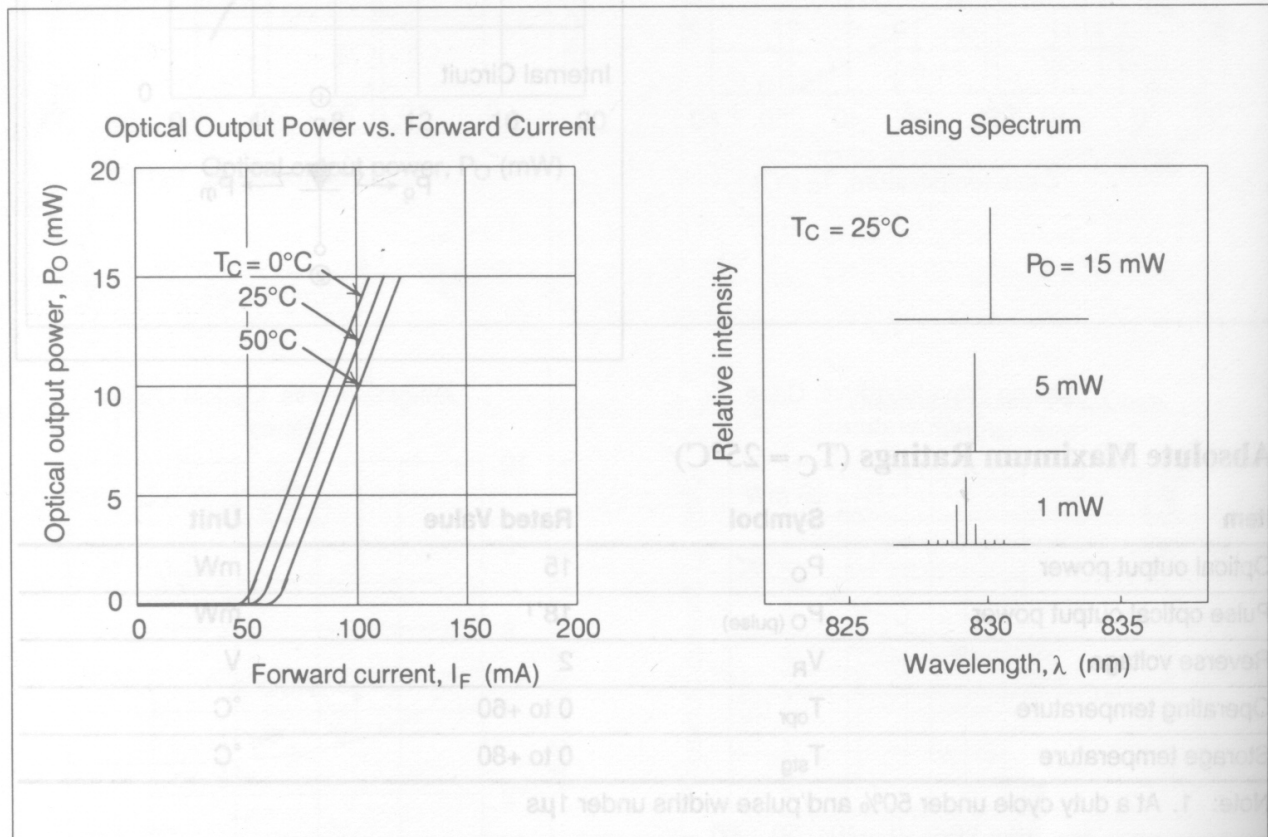
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## Optical and Electrical Characteristics ( $T_C = 25 \pm 3^\circ\text{C}$ )

Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Threshold current	$I_{th}$	—	60	90	mA	
Optical output power	$P_O$	15	—	—	mW	Kink free
		4	5	—	mW	$I_F = I_{th} + 25 \text{ mA}$
Monitor output	$P_m$	2	—	—	mW	$I_F = I_{th} + 25 \text{ mA}$
Lasing wavelength	$\lambda_p$	800	830	850	nm	$P_O = 10 \text{ mW}$
Beam divergence (parallel)	$\theta_{//}$	—	11	—	deg.	$P_O = 10 \text{ mW}$
Beam divergence (perpendicular)	$\theta_{\perp}$	—	25	—	deg.	$P_O = 10 \text{ mW}$

## Typical Characteristic Curves



# HLP 1400

## HLP1400

### Typical Characteristic Curves (cont)

