

# HLP1600

## GaAlAs LD

### Description

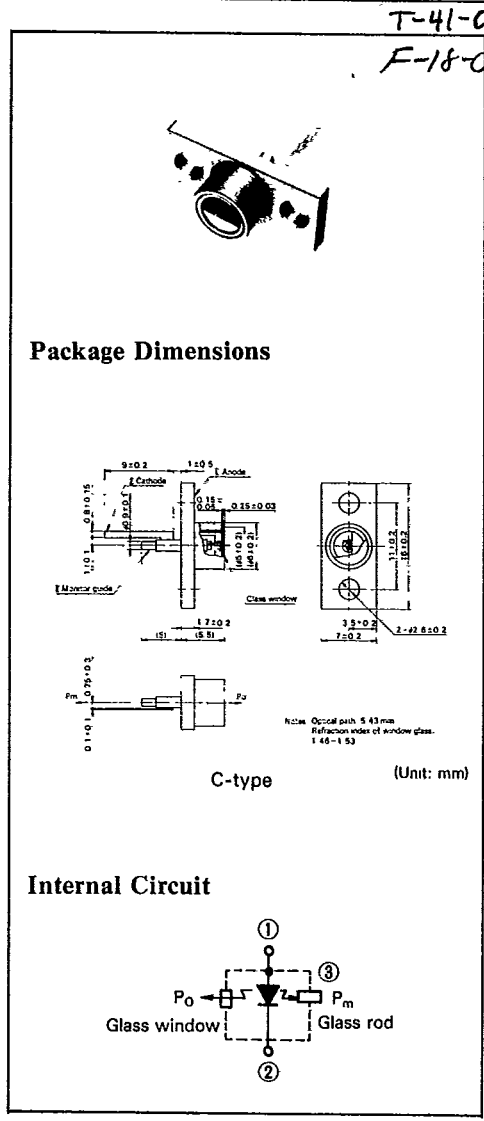
HLP1600 is a 0.8 μm GaAlAs laser diode with double heterojunction structure.

It is suitable as a light source in fiberoptic communications, optical disc memories or various other types of optical equipment.

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

### Features

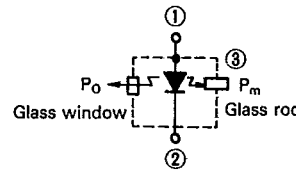
- Infrared light output:  $\lambda_p = 800-850$  nm
- 15 mW CW operation at room temperature
- Single longitudinal mode
- Fast pulse response:  $t_r, t_f \cong 0.5$  ns



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

Items	Symbols	Values	Units
Optical output power	$P_O$	15	mW
Reverse voltage	$V_R$	2	V
Operating temperature	$T_{opr}$	0 to +60	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-40 to +80	$^\circ\text{C}$

### Internal Circuit



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

Items	Symbols	min.	typ.	max.	Units	Test conditions
Threshold current	$I_{th}$		60	90	mA	
Optical output power	$P_O$	15			mW	Kink free
		4	5		mW	$I_F = I_{th} + 25$ mA
Monitor power	$P_m$	0.2			mW	$I_F = I_{th} + 25$ mA
Lasing wavelength	$\lambda_p$	800	830	850	nm	$P_O = 10$ mW
Beam divergence parallel to the junction	$\theta_{  }$		10		deg.	$P_O = 10$ mW
Beam divergence perpendicular to the junction	$\theta_{\perp}$		25		deg.	$P_O = 10$ mW
Rise time	$t_r$			0.5	ns	
Fall time	$t_f$			0.5	ns	

