

# INFRARED LASER DIODE



## DL-3144-007S

Ver.1 May. 2001

### Features

- Wavelength : 785 nm (Typ.)
- Low threshold current :  $I_{th} = 25$  mA (Typ.)
- Small package :  $\phi 5.6$ mm

### Applications

Laser beam printer

### Absolute Maximum Ratings

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

Parameter	Symbol	Ratings	Unit
Light Output	$P_o$ (CW)	5	mW
Reverse Voltage	Laser	2	V
	PIN	30	
Operating Temperature <sup>1)</sup>	$T_{opr}$	-10 ~ +60	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-40 ~ +85	$^\circ\text{C}$

1) Case temperature

### Electrical and Optical Characteristics <sup>2) 3) 4) 6)</sup>

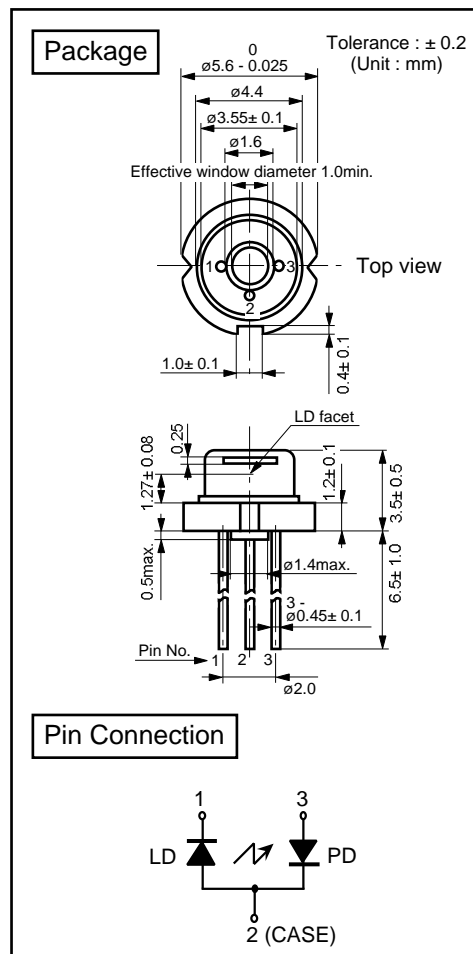
( $T_c=25^\circ\text{C}$ )

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit	
Threshold Current	$I_{th}$	CW	15	25	35	mA	
Operating Current	$I_{op}$	$P_o=3\text{mW}$	-	35	45	mA	
Lasing Wavelength	$L_p$	$P_o=3\text{mW}$	770	785	800	nm	
Beam <sup>5)</sup> Divergence	Perpendicular	$Q_v$	$P_o=3\text{mW}$	20	27	30	$^\circ$
	Parallel	$Q_h$	$P_o=3\text{mW}$	7	9	12	$^\circ$
Off Axis Angle	Perpendicular	$dQ_v$	$P_o=3\text{mW}$	-	-	$\pm 3$	$^\circ$
	Parallel	$dQ_h$	$P_o=3\text{mW}$	-	-	$\pm 2$	$^\circ$
Differential Efficiency	$dP_o/dI_{op}$	-	0.15	0.35	0.5	mW/mA	
Monitoring Output Current	$I_m$	$P_o=3\text{mW}$	0.3	0.6	1.5	mA	
Astigmatism	$A_s$	$P_o=3\text{mW}$	-	-	10	$\mu\text{m}$	

2) Initial values. 3) All the above values are evaluated with Tottori sanyo's measuring apparatus.

4) Reference values. 5) Full angle at half maximum. 6) Measured at CW.

Note : The above product specification are subject to change without notice.



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