

# INFRARED LASER DIODE



## DL-3144-008S

Ver. 2 Mar. 2007

### Features

- Wavelength : 785 nm (Typ.)
- Threshold current :  $I_{th} = 25$  mA (Typ.)
- 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)	8	mW
Reverse Voltage	Laser	2	V
	PD	30	
Operating Temperature <sup>1)</sup>	$T_{opr}$	-10 to +60	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-40 to +85	$^\circ\text{C}$

1) Case temperature

### Standard Usage Condition

- Max. 5mW (at CW operation)

### Electrical and Optical Characteristics <sup>2) 3) 4) 5)</sup>

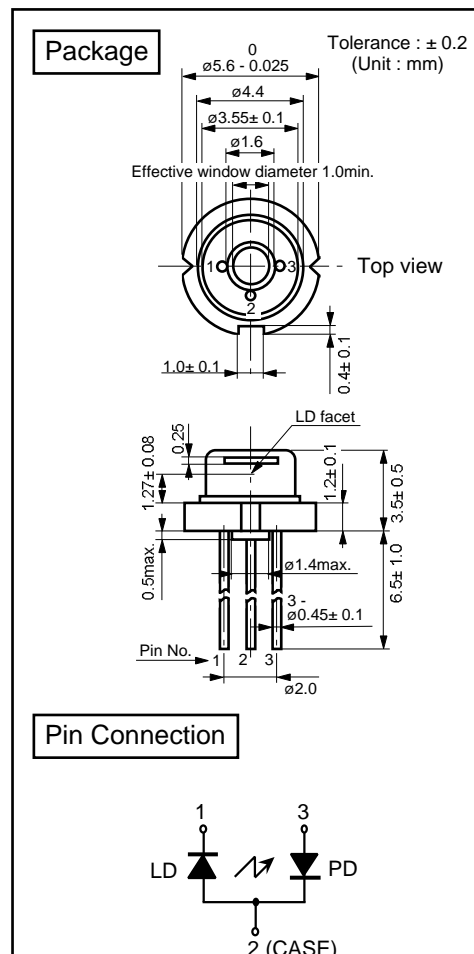
( $T_c=25^\circ\text{C}$ )

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit	
Threshold Current	$I_{th}$	CW	15	25	40	mA	
Operating Current	$I_{op}$	$P_o=5\text{mW}$	-	40	55	mA	
Operating Voltage	$V_{op}$	$P_o=5\text{mW}$	-	1.75	2.0	V	
Lasing Wavelength	$L_p$	$P_o=5\text{mW}$	770	785	800	nm	
Beam <sup>5)</sup> Divergence	Perpendicular	$Q_v$	$P_o=5\text{mW}$	20	26	30	$^\circ$
	Parallel	$Q_h$	$P_o=5\text{mW}$	7	8.5	11	$^\circ$
Off Axis Angle	Perpendicular	$dQ_v$	$P_o=5\text{mW}$	-3	-	3	$^\circ$
	Parallel	$dQ_h$	$P_o=5\text{mW}$	-2	-	2	$^\circ$
Differential Efficiency	SE	-	0.2	0.35	0.55	mW/mA	
Monitoring Output Current	$I_m$	$P_o=5\text{mW}$	1.0	2.0	3.5	mA	

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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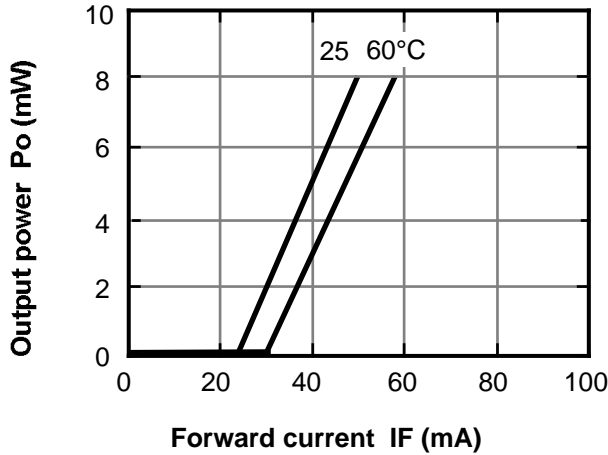
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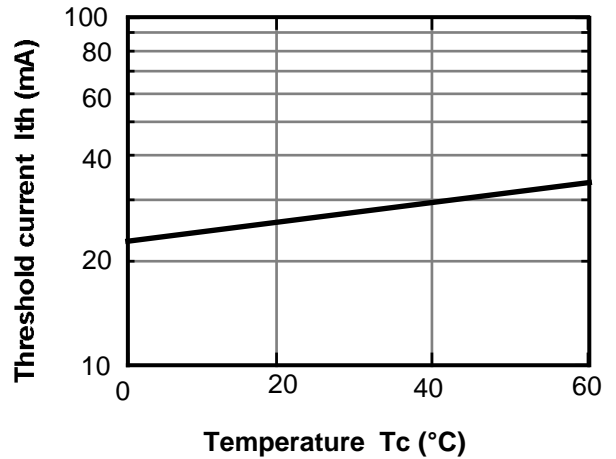
info@imm-laser.de  
www.imm-laser.de

## Characteristics

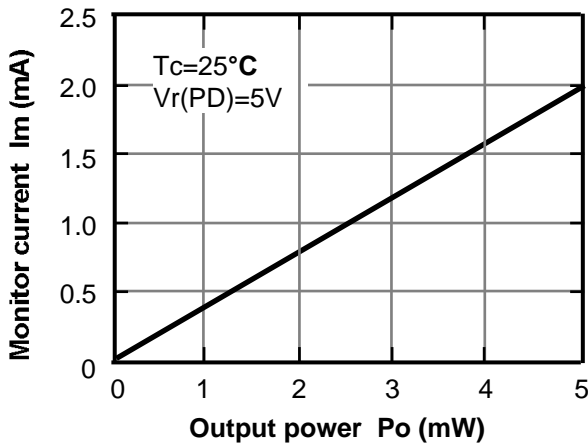
**Output power vs. Forward current**



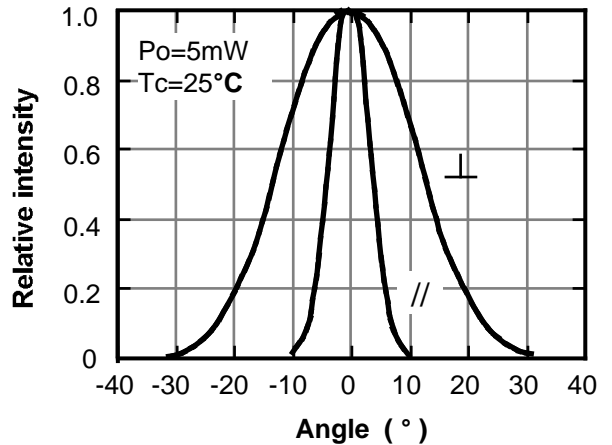
**Threshold current vs. Temperature**



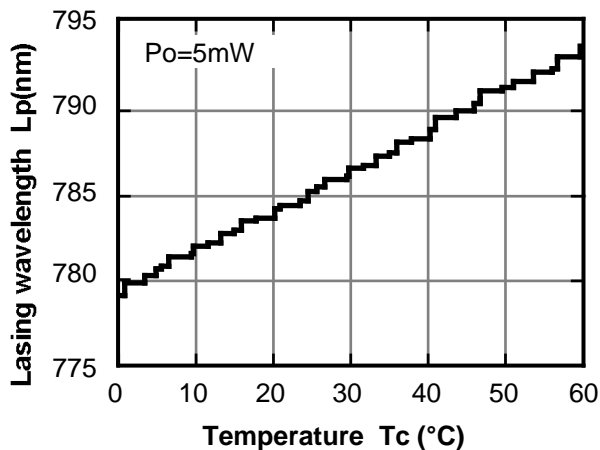
**Monitor current vs. Output power**



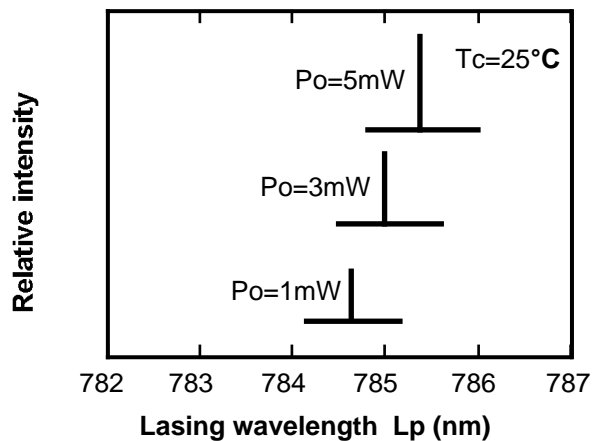
**Beam divergence**



**Lasing wavelength vs. Temperature**



**Output power vs. Lasing wavelength**



This is typical data and it may not represent all products.