

## DL3149-057 Red Laser Diode

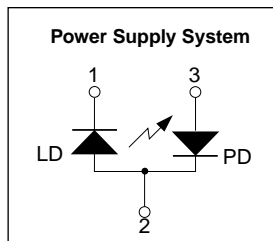
### FEATURES

- Short wavelength: 670nm (Typ.)
- Low threshold current:  $I_{th} = 25\text{mA}$  (Typ.)
- High operating temperature: 5 mW at 60°C
- Small package:  $\varnothing 5.6\text{mm}$

### APPLICATIONS

- Laser beam printer
- Bar-code scanner

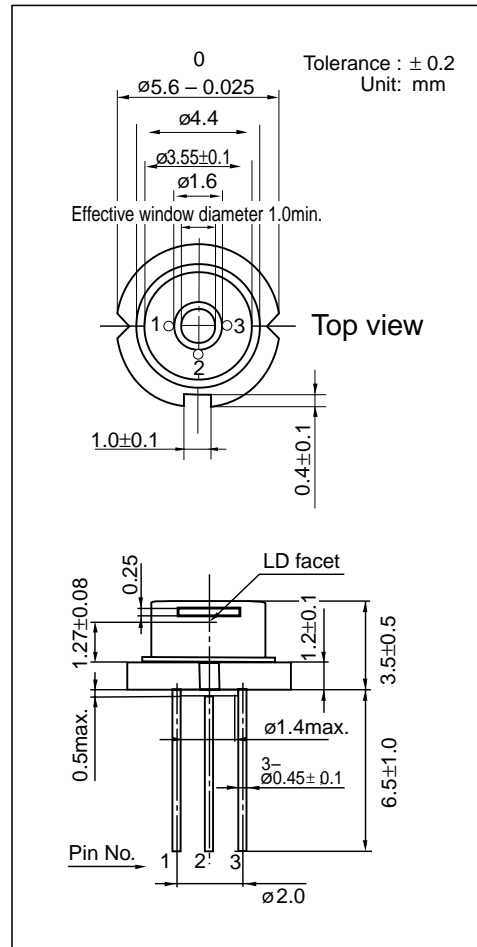
### Pin Connection



### Absolute Maximum Ratings at $T_c = 25^\circ\text{C}$

Parameter	Symbol	Ratings	Unit
Light Output	CW $P_o$	7	mW
Reverse Voltage	LD	2	V
	PD	30	
Operating Temperature	$T_{opr}$	-10~ +60	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-40 ~+85	$^\circ\text{C}$

### Package Dimension



### Electrical/Optical Characteristics at $T_c = 25^\circ\text{C}$

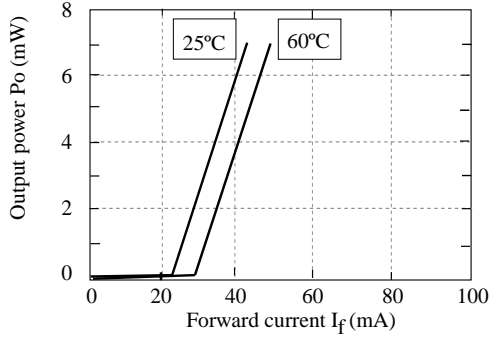
Parameter	Symbol	Condition	Min.	Typ.	Max	Unit	
Threshold Current	$I_{th}$	CW	-	25	35	mA	
Operating Current	$I_{op}$	$P_o = 5\text{mW}$	-	40	45	mA	
Operating Voltage	$V_{op}$	$P_o = 5\text{mW}$	-	2.3	2.6	V	
Lasing Wavelength	$\lambda_p$	$P_o = 5\text{mW}$	660	670	678	nm	
Beam Divergence	1) Perpendicular	$\theta_{\perp}$	$P_o = 5\text{mW}$	25	30	35	$^\circ$
	Parallel	$\theta_{//}$	$P_o = 5\text{mW}$	6.5	8	10	$^\circ$
Off Axis Angle	Perpendicular	$\Delta\theta_{\perp}$	-	-	$\pm 3$	$^\circ$	
	Parallel	$\Delta\theta_{//}$	-	-	$\pm 3$	$^\circ$	
Differential Efficiency	$dP_o/dI_{op}$	-	0.2	0.4	0.6	mW/mA	
Monitoring Output Current	$I_m$	$P_o = 5\text{mW}$	0.5	1.5	2.0	mA	
Astigmatism	$A_s$	$P_o = 5\text{mW}$	-	8	-	$\mu\text{m}$	

1) Full angle at half maximum Note: The above product specification are subject to change without notice.

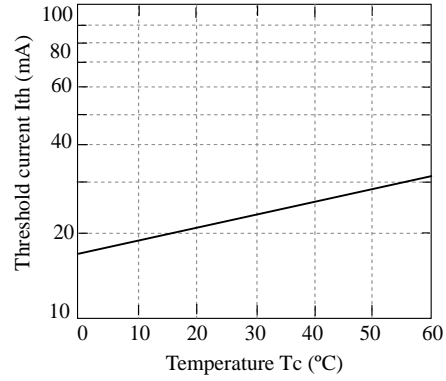
## DL3149-057

### CHARACTERISTICS

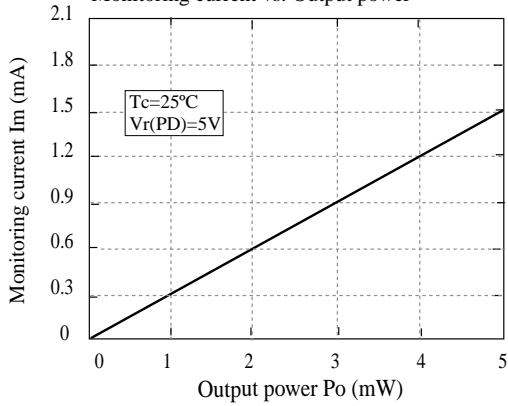
Output power vs. Forward current



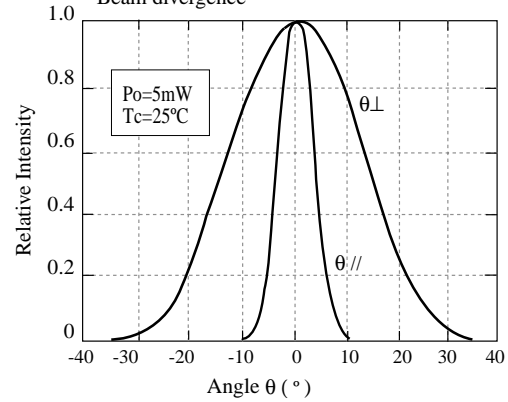
Threshold current vs. Temperature



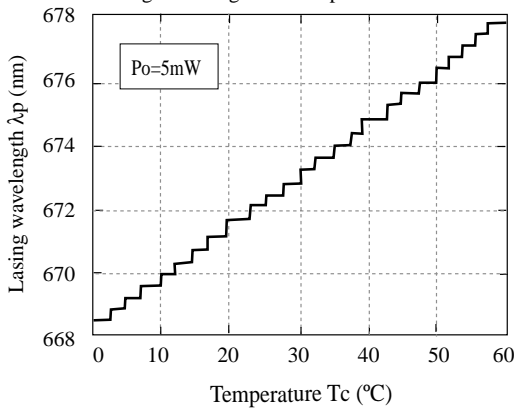
Monitoring current vs. Output power



Beam divergence



Lasing wavelength vs. Temperature



Lasing wavelength vs. Output power

