

RED LASER DIODE

DL-3149-057

SANYO

Ver.1 Jun. 2000

Features

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

Applications

- Laser beam printer
- Bar-code scanner

Absolute Maximum Ratings

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

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

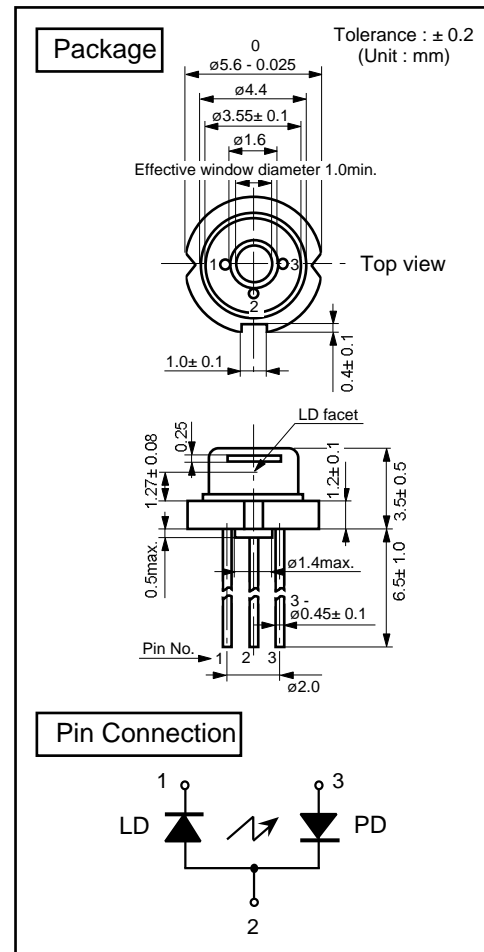
Electrical and Optical Characteristics ^{1) 2)}

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

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		λ_p	$P_o=5\text{mW}$	660	670	678	nm
Beam ³⁾ Divergence	Perpendicular	Q_v	$P_o=5\text{mW}$	25	30	35	$^\circ$
	Parallel	Q_h	$P_o=5\text{mW}$	6.5	8	10	$^\circ$
Off Axis Angle	Perpendicular	dQ_v	-	-	-	± 3	$^\circ$
	Parallel	dQ_h	-	-	-	± 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	mA
Astigmatism		A_s	$P_o=5\text{mW}$	-	8	-	μm

1) Initial values 2) All the above values are evaluated with Tottori Sanyo's measuring apparatus

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

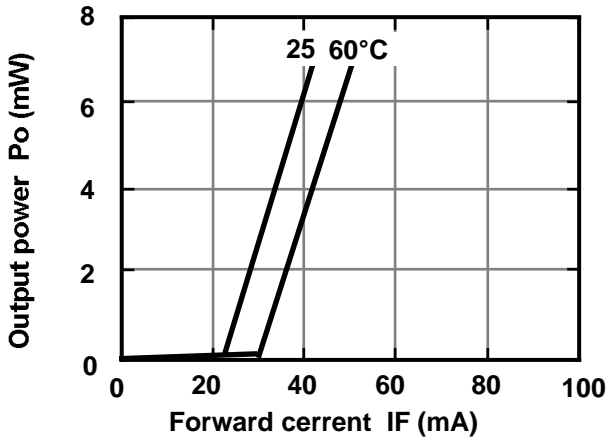


Tottori SANYO Electric Co., Ltd. Electronic Device Business Headquarters
LED Division

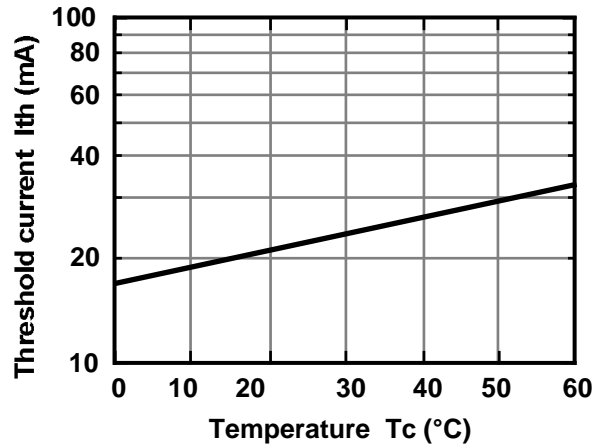
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Characteristics

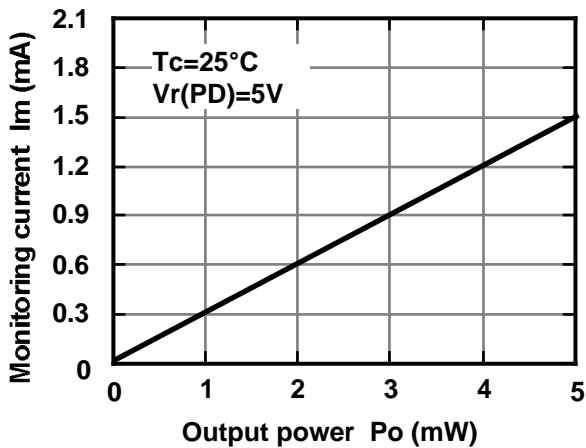
Output power vs. Forward current



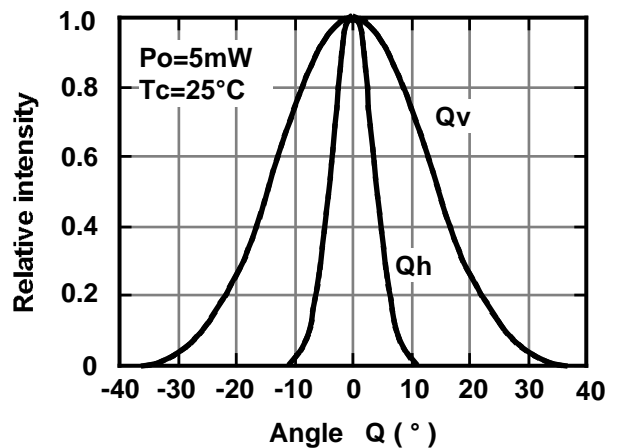
Threshold current vs. Temperature



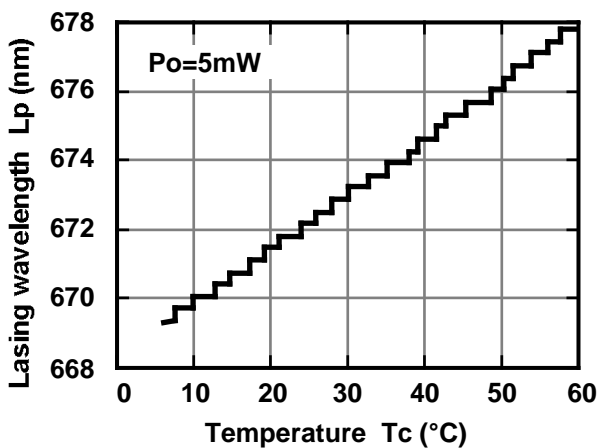
Monitoring current vs. Output power



Beam divergence



Lasing wavelength vs. Temperature



Lasing wavelength vs. Output power

