

Features

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

Applications

- Laser beam printer
- Bar-code scanner

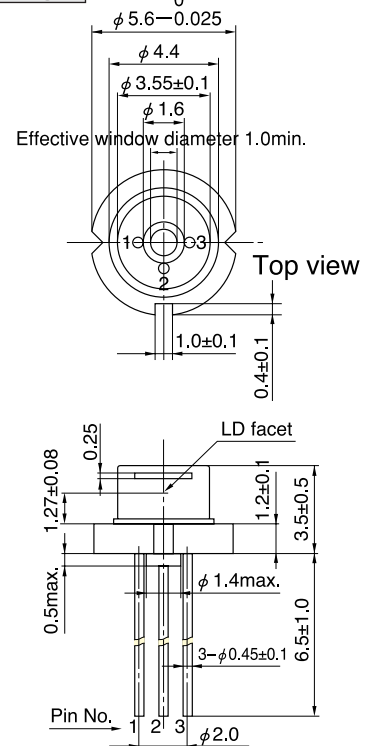
Absolute Maximum Ratings

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

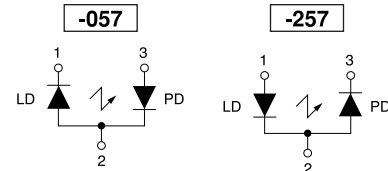
Parameter		Symbol	Ratings	Unit
Light Output	CW	P_o	7	mW
Reverse Voltage	LD	V_R	2	V
	PD		30	
Operating Temperature		T_{opr}	-10 to +60	$^\circ\text{C}$
Storage Temperature		T_{stg}	-40 to +85	$^\circ\text{C}$

Package

Tolerance : ± 0.2
Unit : mm



Pin Connection



Electrical and Optical Characteristics ^{1) 2)}

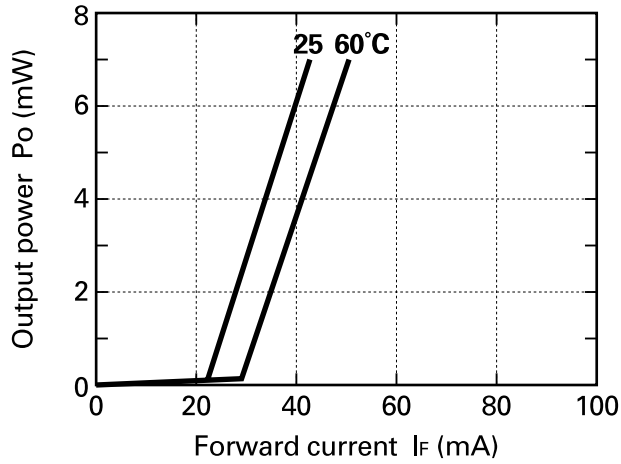
($T_c = 25^\circ\text{C}$)

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 Divergence ³⁾	Perpendicular	$\theta_{\perp}$	$P_o=5\text{mW}$	25	30	35	$^\circ$
	Parallel	$\theta_{\parallel}$	$P_o=5\text{mW}$	6.5	8	10	$^\circ$
Off Axis Angle	Perpendicular	$\Delta\theta_{\perp}$	—	—	—	± 3	$^\circ$
	Parallel	$\Delta\theta_{\parallel}$	—	—	—	± 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 ⁴⁾	2.0	mA
Astigmatism		A_s	$P_o=5\text{mW}$	—	8	—	μm

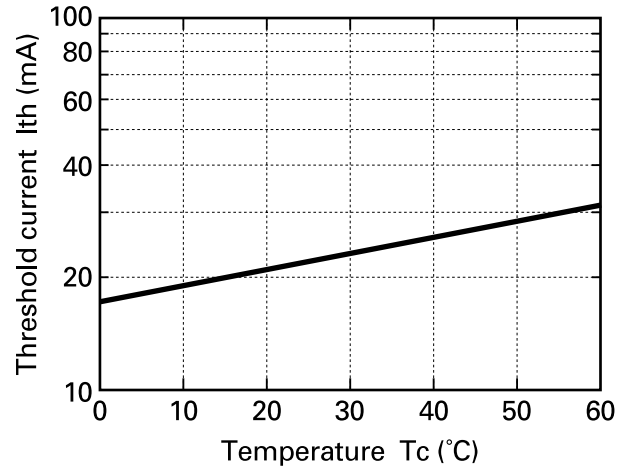
1) Initial values 2) All the above values are evaluated with Tottori Sanyo's measuring apparatus 3) Full angle at half maximum 4) -257 : I_m Typ = 1.2mA
Note : The above product specifications are subject to change without notice.

Characteristics

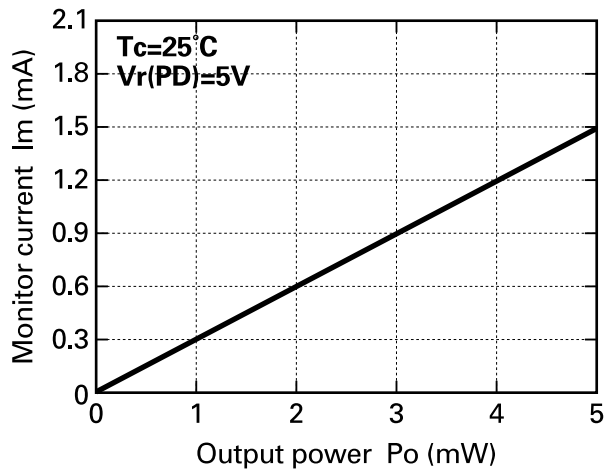
Output power vs. Forward current



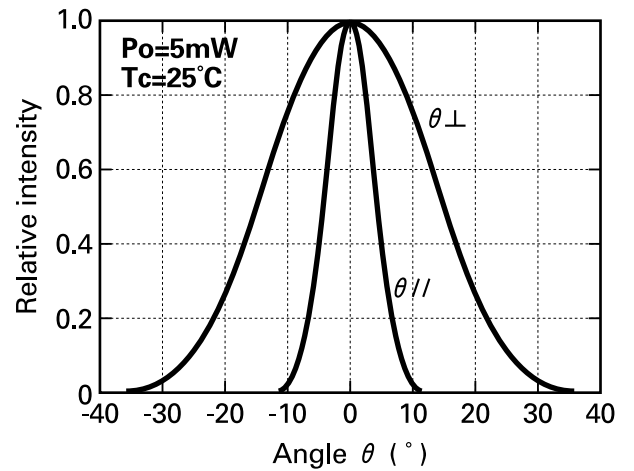
Threshold current vs. Temperature



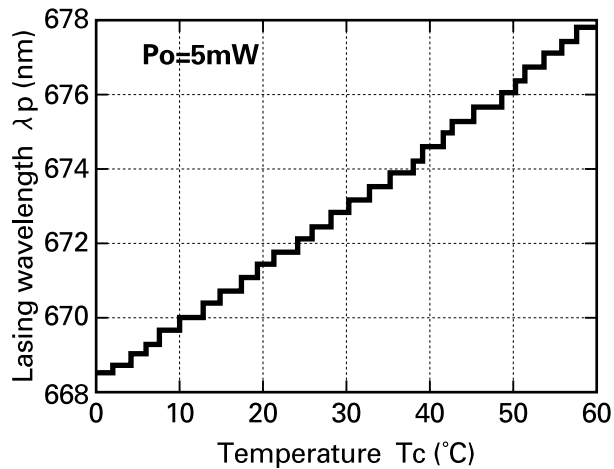
Monitor current vs. Output power



Beam divergence



Lasing wavelength vs. Temperature



Lasing wavelength vs. Output power

