

Features

- Short wavelength : 655 nm (Typ.)
- High output power : 30mW at 60°C
- Low threshold current : $I_{th} = 45$ mA (Typ.)
- Small package : $\phi 5.6$ mm
- TE mode

Applications

- Bar-code scanner
- Laser printer

Absolute Maximum Ratings

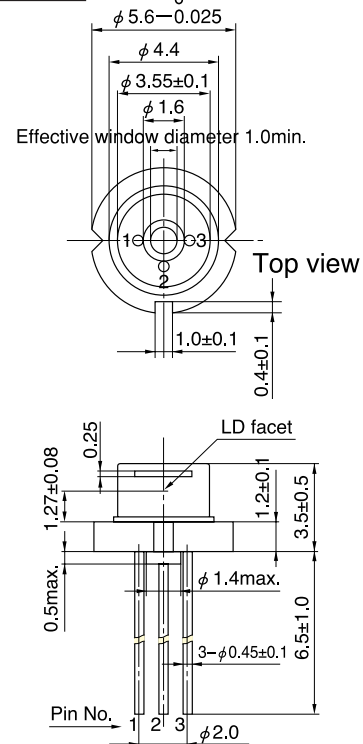
($T_c = 25^\circ\text{C}$)

Parameter		Symbol	Ratings	Unit
Light Output	CW	P_o (CW)	30	mW
	Pulse ¹⁾	P_o (pulse)	50	
Reverse Voltage	LD	V_R	2	V
	PD		30	
Operating Temperature		T_{opr}	-10 to +60	°C
Storage Temperature		T_{stg}	-40 to +85	°C

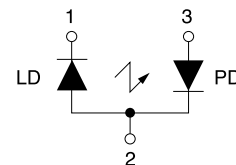
1) Pulse Width $0.5\mu\text{s}$, Duty 50%

Package

Tolerance : ± 0.2
Unit : mm



Pin Connection



Electrical and Optical Characteristics

2) 3)

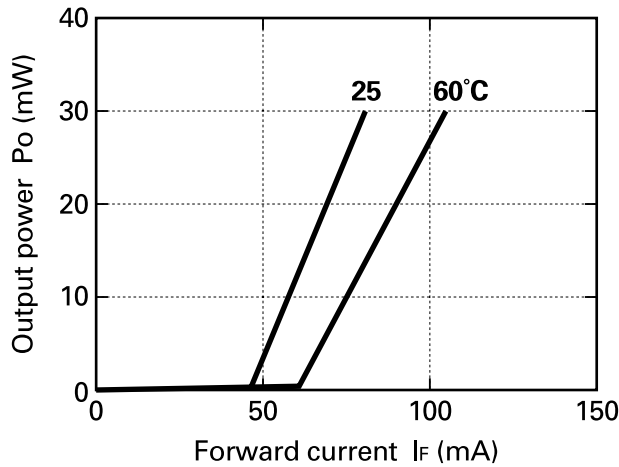
($T_c = 25^\circ\text{C}$)

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		I_{th}	CW	—	45	70	mA
Operating Current		I_{op}	$P_o=30\text{mW}$	—	80	110	mA
Operating Voltage		V_{op}	$P_o=30\text{mW}$	—	2.4	2.8	V
Lasing Wavelength		λ_p	$P_o=30\text{mW}$	—	655	665	nm
Beam Divergence ⁴⁾	Perpendicular	$\theta_{\perp}$	$P_o=30\text{mW}$	15	23	28	°
	Parallel	$\theta_{\parallel}$	$P_o=30\text{mW}$	6	7	10	°
Off Axis Angle	Perpendicular	$\Delta\theta_{\perp}$	—	—	—	± 3	°
	Parallel	$\Delta\theta_{\parallel}$	—	—	—	± 3	°
Differential Efficiency		dP_o/dI_{op}	—	—	0.8	—	mW/mA
Monitoring Output Current		I_m ⁵⁾	$P_o=30\text{mW}$	0.01	0.03	—	mA
Astigmatism		A_s	$P_o=30\text{mW}$	—	10	—	μm

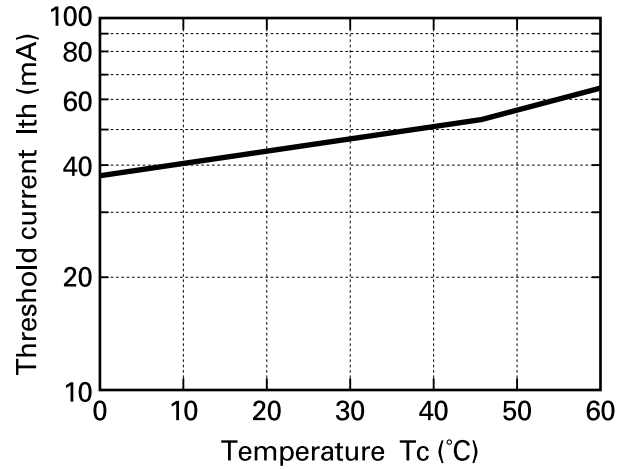
2) Initial values 3) All the above values are evaluated with Tottori Sanyo's measuring apparatus 4) Full angle at half maximum 5) We recommend Front monitor APC
Note : The above product specifications are subject to change without notice.

Characteristics

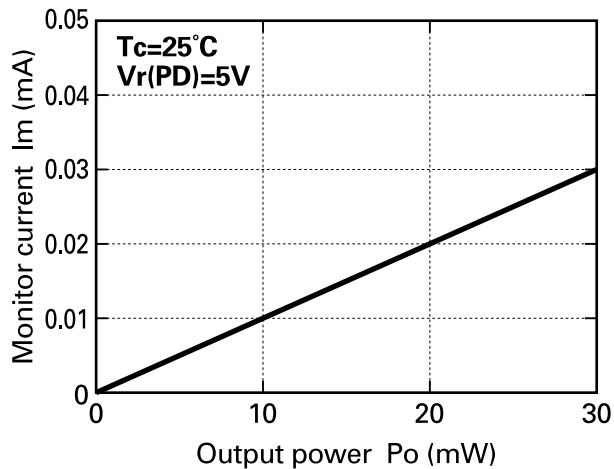
Output power vs. Forward current



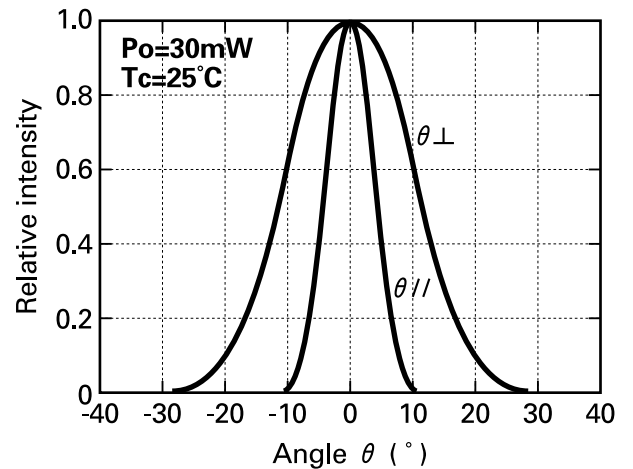
Threshold current vs. Temperature



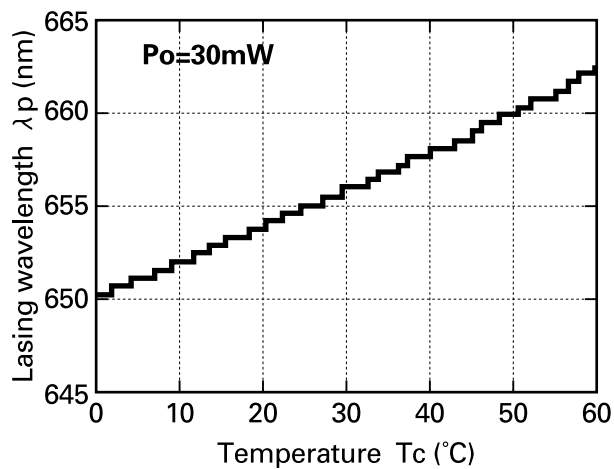
Monitor current vs. Output power



Beam divergence



Lasing wavelength vs. Temperature



Lasing wavelength vs. Output power

