

## Features

- Short wavelength : 655 nm (Typ.)
- Low threshold current :  $I_{th} = 20$  mA (Typ.)
- High operating temperature : 5mW at 70°C
- Frame type

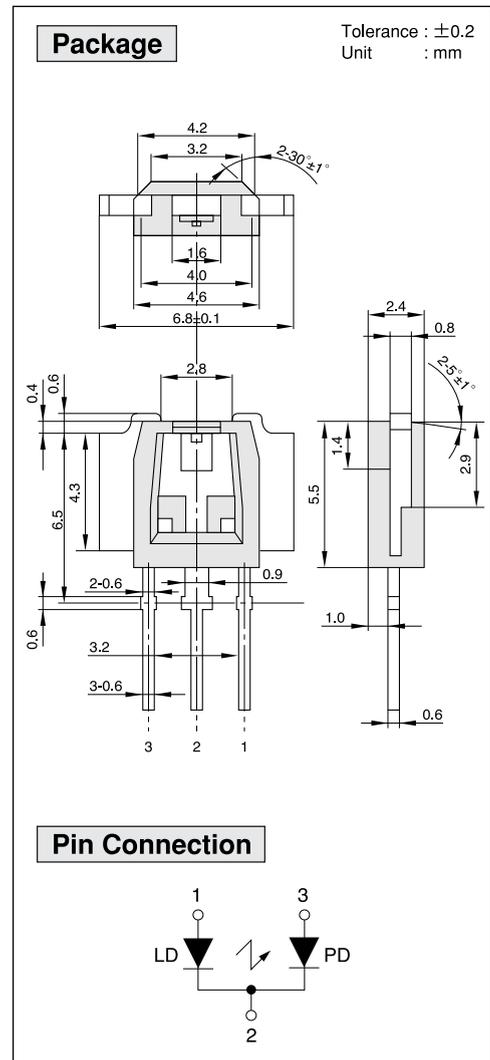
## Applications

- DVD-AV, DVD-ROM

## 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 +70	°C
Storage Temperature		$T_{stg}$	-40 to +85	°C



## Electrical and Optical Characteristics <sup>1) 2)</sup>

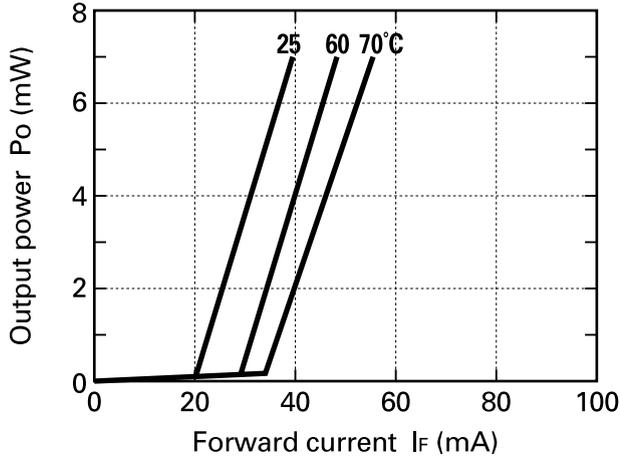
( $T_c = 25^\circ\text{C}$ )

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		$I_{th}$	CW	—	20	40	mA
Operating Current		$I_{op}$	$P_o=5\text{mW}$	—	30	50	mA
Operating Voltage		$V_{op}$	$P_o=5\text{mW}$	—	2.3	2.6	V
Lasing Wavelength		$\lambda_p$	$P_o=5\text{mW}$	650	655	665	nm
Beam Divergence <sup>3)</sup>	Perpendicular	$\theta_{\perp}$	$P_o=5\text{mW}$	25	30	35	°
	Parallel	$\theta_{\parallel}$	$P_o=5\text{mW}$	7	8	10	°
Off Axis Angle	Perpendicular	$\Delta\theta_{\perp}$	—	—	—	±3	°
	Parallel	$\Delta\theta_{\parallel}$	—	—	—	±2	°
Differential Efficiency		$dP_o/dI_{op}$	—	0.3	0.5	0.8	mW/mA
Monitoring Output Current		$I_m$	$P_o=5\text{mW}$	0.05	0.1	0.3	mA
Astigmatism		$A_s$	$P_o=5\text{mW}$	—	8	—	$\mu\text{m}$

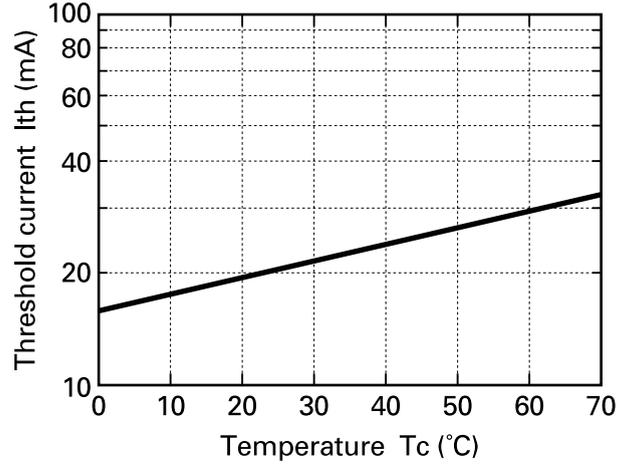
1)Initial values 2)All the above values are evaluated with Tottori Sanyo's measuring apparatus 3) Full angle at half maximum  
 Note : The above product specifications are subject to change without notice.

## Characteristics

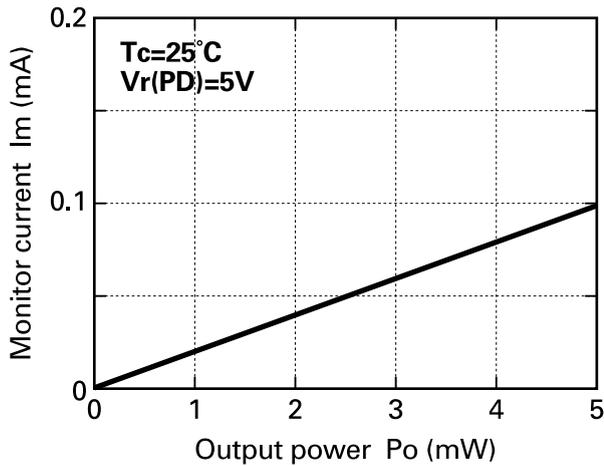
**Output power vs. Forward current**



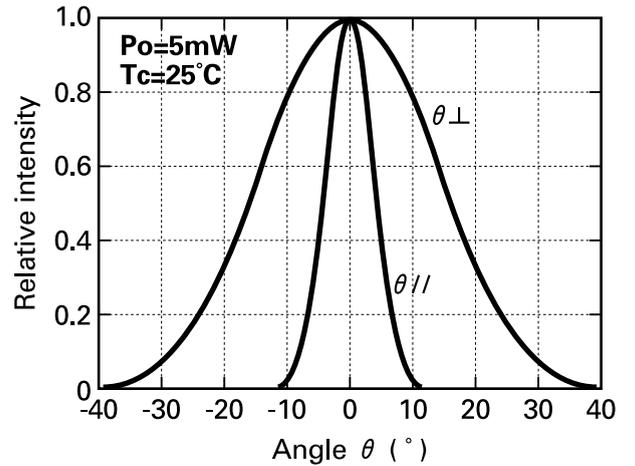
**Threshold current vs. Temperature**



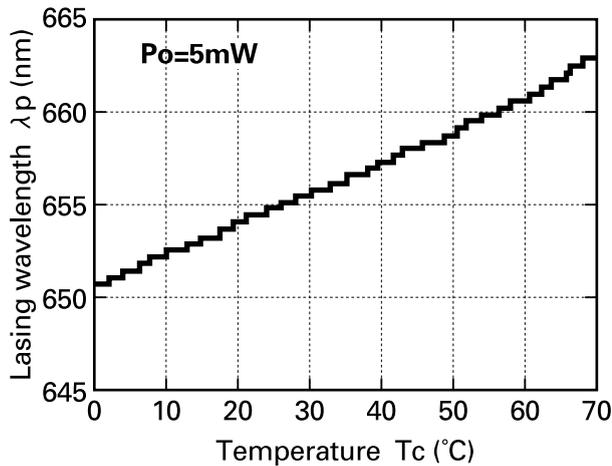
**Monitor current vs. Output power**



**Beam divergence**



**Lasing wavelength vs. Temperature**



**Lasing wavelength vs. Output power**

