

RED LASER DIODE



DL-3107-165

Ver.1 Apr. 2001

Features

- Short wavelength : 650 nm (Typ.)
- Low threshold current : $I_{th} = 25\text{mA}$ (Typ.)
- High operating temperature : 5 mW 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	Laser	VR	2	V
	PD		30	
Operating Temperature	T_{opr}	-10 ~ +70	°C	
Storage Temperature	T_{stg}	-40 ~ +85	°C	

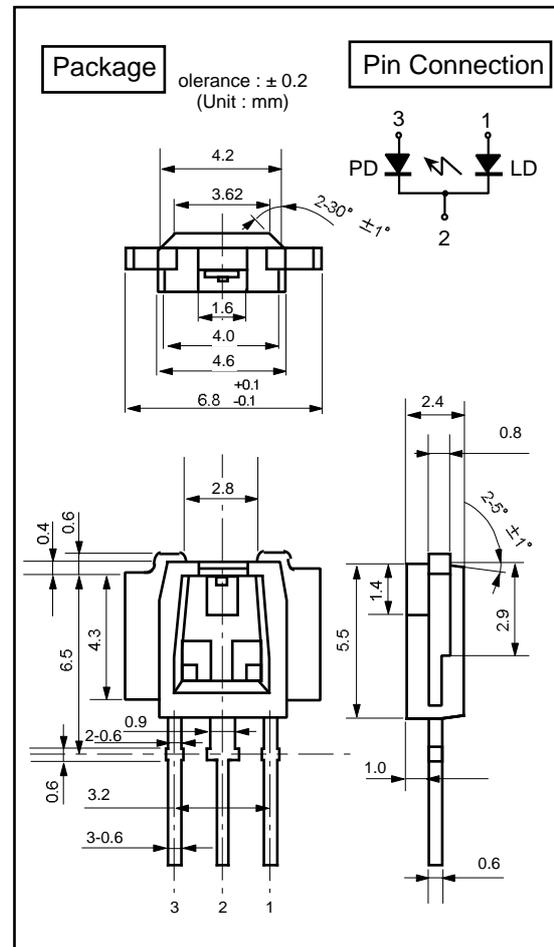
Electrical and Optical Characteristics ^{1) 2)}

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

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit	
Threshold Current	I_{th}	CW	-	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	λ_p	$P_o=5\text{mW}$	650	655	665	nm	
Beam ³⁾ Divergence	Perpendicular	Q_v	$P_o=5\text{mW}$	25	30	35	°
	Parallel	Q_h	$P_o=5\text{mW}$	7.0	8.0	10	°
Off Axis Angle	Perpendicular	dQ_v	-	-	± 3	°	
	Parallel	dQ_h	-	-	± 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	-	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.

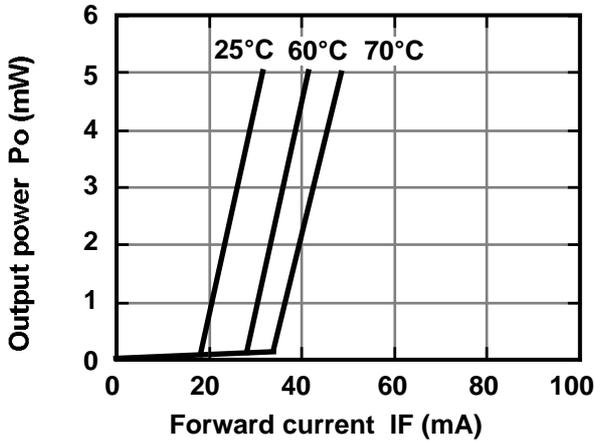


Tottori SANYO Electric Co., Ltd. Electronic Device Business Headquarters
LED Division

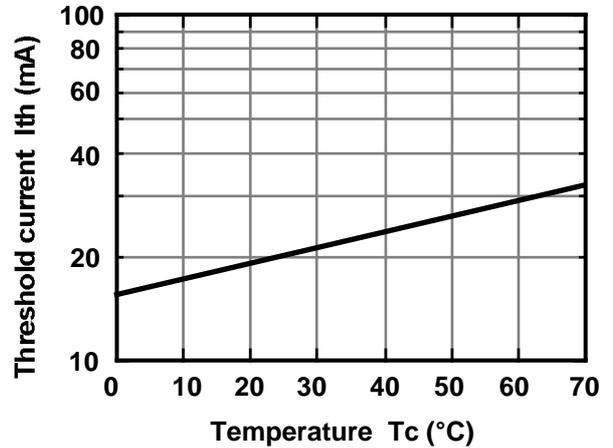
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Characteristics

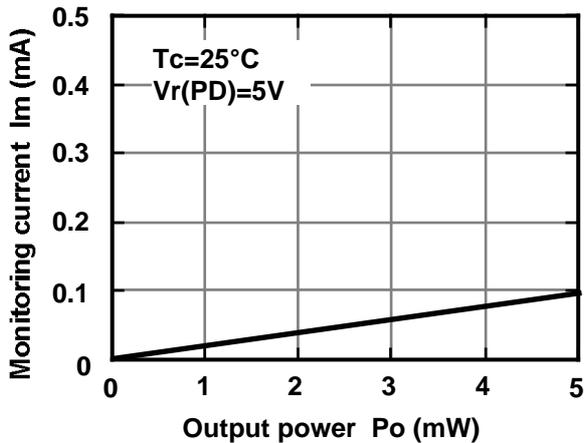
Output power vs. Forward current



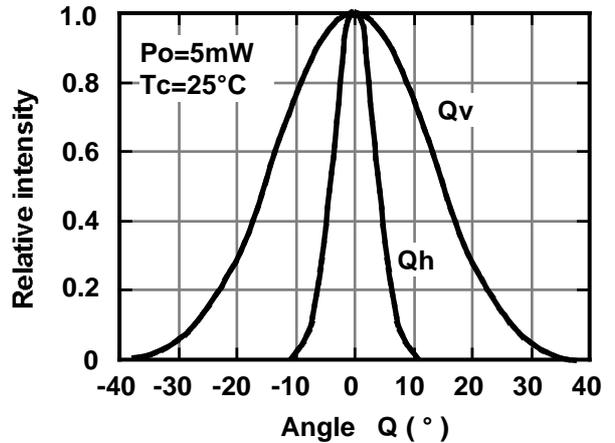
Threshold current vs. Temperature



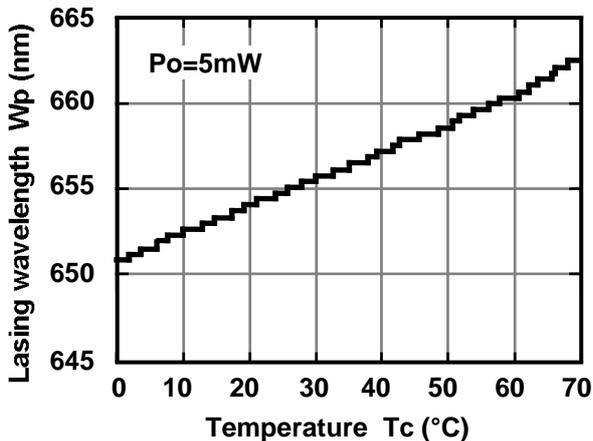
Monitoring current vs. Output power



Beam divergence



Lasing wavelength vs. Temperature



Lasing wavelength vs. Output power

