

RED LASER DIODE

DL-4147-062

SANYO

Ver.1 Jun. 2002

Features

- Wavelength : 650 nm (Typ.)
- Low threshold current : $I_{th} = 30 \text{ mA}$ (Typ.)
- High operating temperature : 10 mW at 70°C
- TE mode

Applications

- Bar-code scanner
- Industrial use

Absolute Maximum Ratings

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

Parameter	Symbol	Ratings	Unit
Light Output	CW	P_o	mW
Reverse Voltage	Laser	2	V
	PD	30	
Operating Temperature	T_{opr}	-10 to +70	°C
Storage Temperature	T_{stg}	-40 to +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	-	30	50	mA
Operating Current	I_{op}	$P_o=10 \text{ mW}$	-	50	70	mA
Operating Voltage	V_{op}	$P_o=10 \text{ mW}$	-	2.3	2.6	V
Lasing Wavelength	λ_p	$P_o=10 \text{ mW}$	-	650	660	nm
Beam Divergence ¹⁾	Perpendicular	$P_o=10 \text{ mW}$	23	30	35	°
	Parallel	$P_o=10 \text{ mW}$	7	8	10	°
Off Axis Angle	Perpendicular	$d\lambda_p$	-	-	± 3	°
	Parallel	$d\lambda_h$	-	-	± 2	°
Differential Efficiency	dP_o/dI_{op}	-	0.2	0.5	0.8	mW/mA
Monitoring Output Current	I_m	$P_o=10 \text{ mW}$	0.1	0.3	0.5	mA
Astigmatism	A_s	$P_o=10 \text{ mW}$	-	8	-	μm

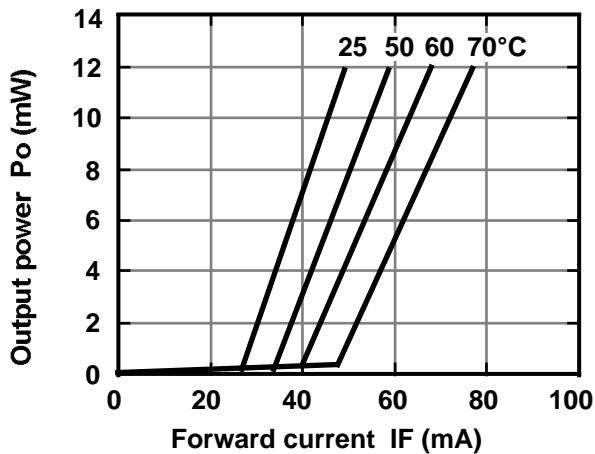
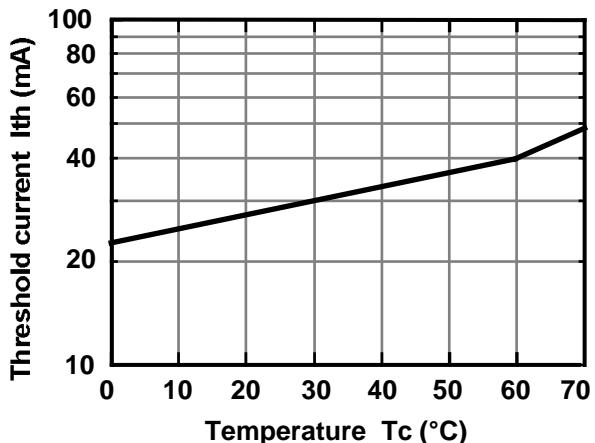
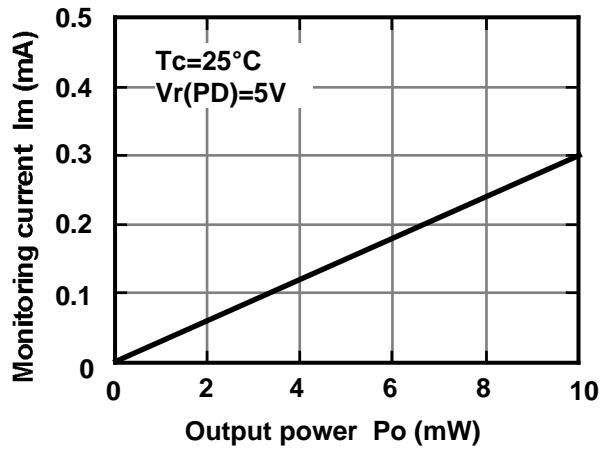
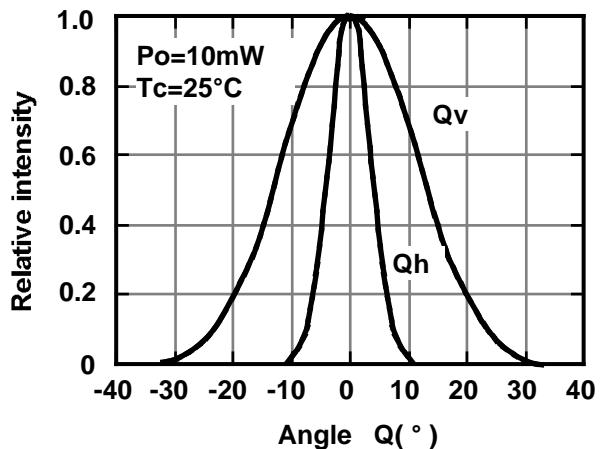
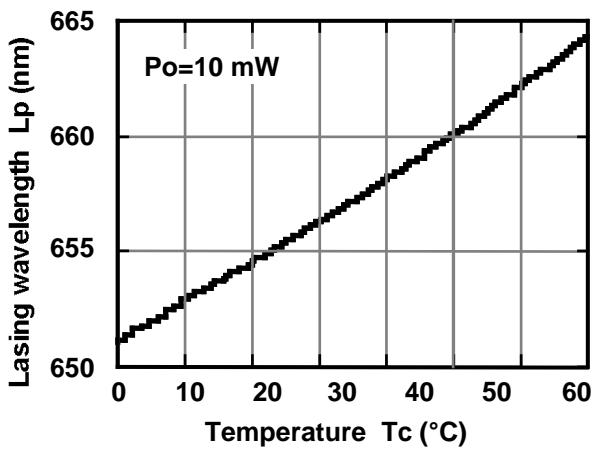
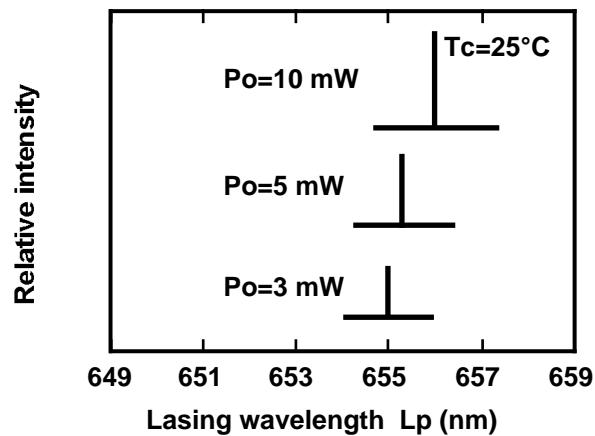
1) Initial values 2) All the above values are evaluated with Tottori Sanyo's measuring apparatus 3) Full angle at half maximum

Note : The above product specification are subject to change without notice.

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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**

This is typical data and it may not represent all products.