

RED LASER DIODE

DL-3148-034

SANYO

Ver.3 Apr. 1999

Features

- Short wavelength : 635 nm (Typ.)
- Low threshold current : $I_{th} = 40$ mA (Typ.)
- High operating temperature : 5mW at 50°C
- Small package : $\phi 5.6$ mm

Applications

Bar-code scanner

Absolute Maximum Ratings

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

Parameter	Symbol	Ratings	Unit	
Light Output	CW	P_o	5	mW
Reverse Voltage	Laser	VR	2	V
	PD		30	
Operating Temperature	T_{opr}	-10 to +50	$^\circ\text{C}$	
Storage Temperature	T_{stg}	-40 to +85	$^\circ\text{C}$	

Electrical and Optical Characteristics ^{1) 2)}

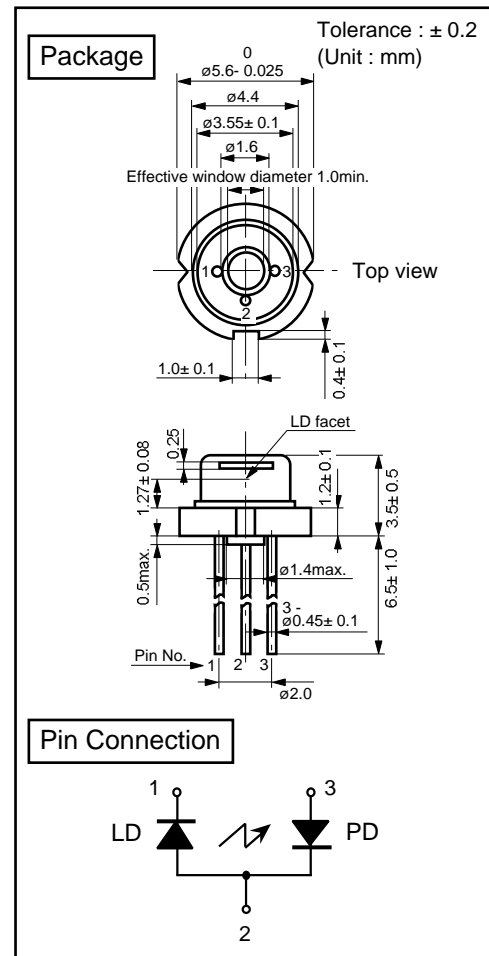
($T_c=25^\circ\text{C}$)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current	I_{th}	CW	-	40	60	mA
Operating Current	I_{op}	$P_o=5\text{mW}$	-	55	75	mA
Operating Voltage	V_{op}	$P_o=5\text{mW}$	-	2.2	2.4	V
Lasing Wavelength	L_p	$P_o=5\text{mW}$	-	635	645	nm
Beam ³⁾ Divergence	Perpendicular	Q_v	25	30	35	$^\circ$
	Parallel	Q_h	6	8	10	$^\circ$
Off Axis Angle	Perpendicular	dQ_v	-	-	± 3.0	$^\circ$
	Parallel	dQ_h	-	-	± 3.0	$^\circ$
Differential Efficiency	dP_o/dI_{op}	-	-	0.4	-	mG/mA
Monitoring Output Current	I_m	$P_o=5\text{mW}$	0.1	0.2	0.5	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.



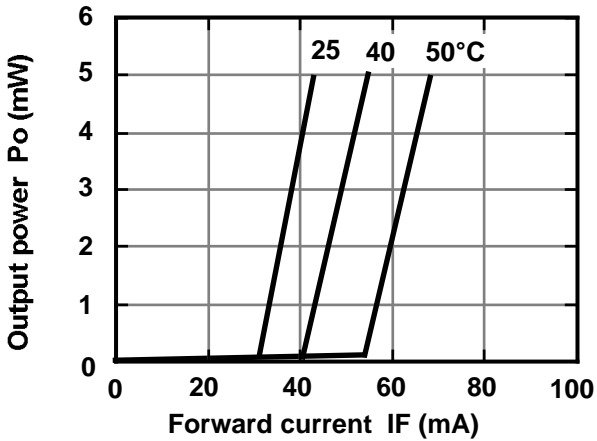
Tottori SANYO Electric Co., Ltd. Electronic Device Business Headquarters

LED Division

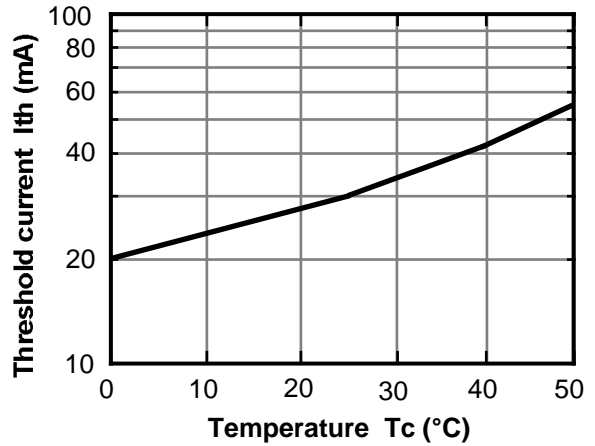
5-318, Tachikawa, Tottori 680-8634 Japan TEL : +81-857-21-2137 FAX : +81-857-21-2161

Characteristics

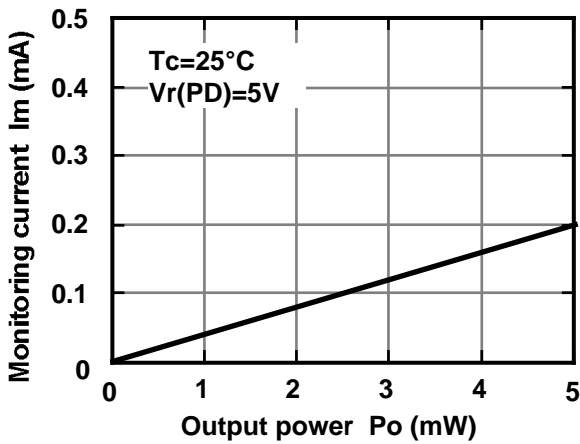
Output power vs. Forward current



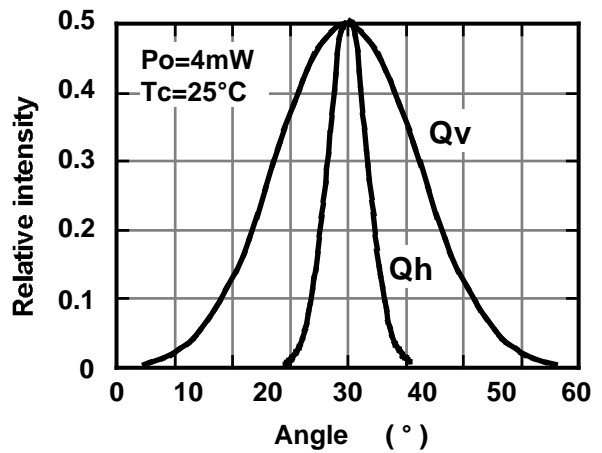
Threshold current vs. Temperature



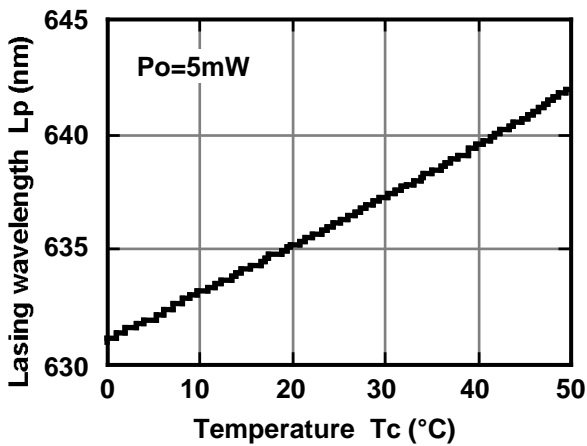
Monitoring current vs. Output power



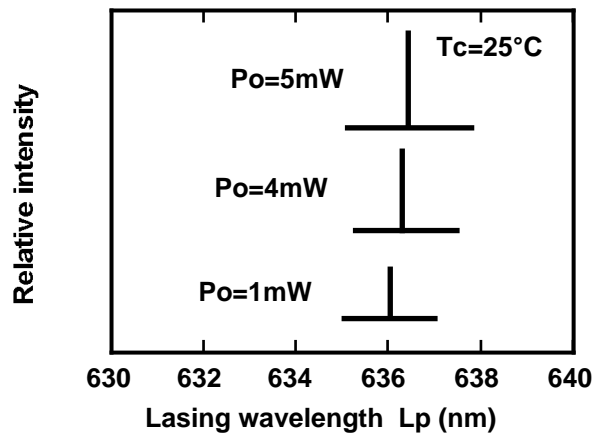
Beam divergence



Lasing wavelength vs. Temperature



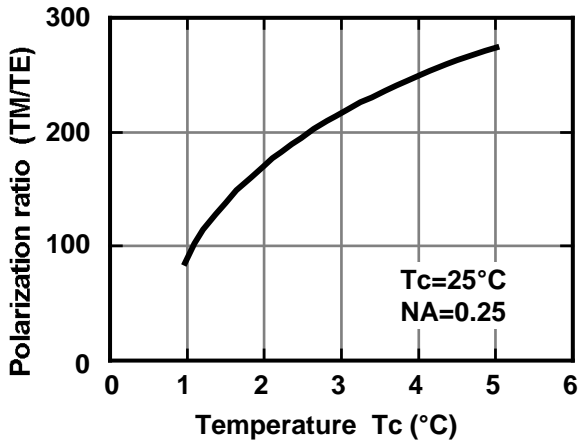
Lasing wavelength vs. Output power



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

Characteristics

Polarization ratio vs. Output power



Astigmatism vs. Output power

