

RED LASER DIODE

DL-3148-013

SANYO

Ver.1 Jun. 2000

Features

- Short wavelength : 635 nm (Typ.)
- Low threshold current : $I_{th} = 30$ mA (Typ.)
- High operating temperature : 5 mW at 40°C
- Low operating voltage : $V_{op} = 2.2$ V (Typ.)

Applications

- Laser pointer

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

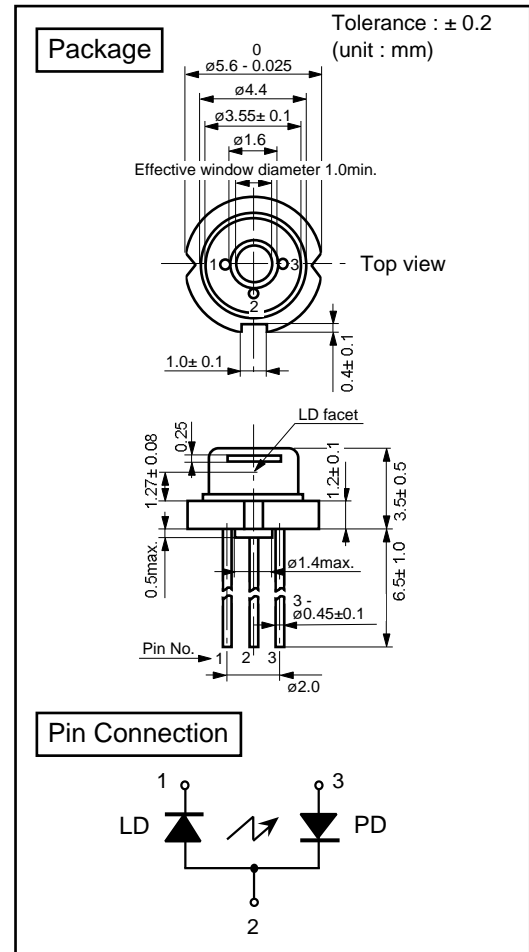
Electrical and Optical Characteristics ^{1) 2)}

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

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		I_{th}	CW	-	30	45	mA
Operating Current		I_{op}	$P_o=5\text{mW}$	-	45	60	mA
Operating Voltage		V_{op}	$P_o=5\text{mW}$	-	2.2	2.5	V
Lasing Wavelength		L_p	$P_o=5\text{mW}$	-	635	643	nm
Beam ³⁾ Divergence	Perpendicular	QV	$P_o=5\text{mW}$	25	30	35	°
	Parallel	Qh	$P_o=5\text{mW}$	6	8	10	°
Off Axis Angle	Perpendicular	dQv	-	-	-	± 3	°
	Parallel	dQh	-	-	-	± 3	°
Differential Efficiency		dP_o/dI_{op}	-	0.2	0.4	0.8	mW/mA
Monitoring Output Current		I_m	$P_o=5\text{mW}$	0.08	0.2	0.4	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.



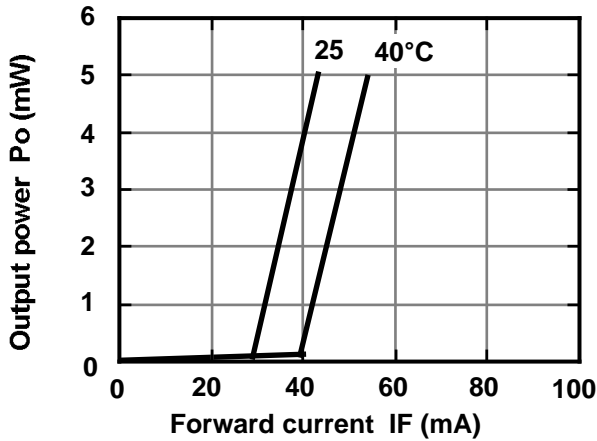
Tottori SANYO Electric Co., Ltd. Electronic Device Business Headquarters

LED Division

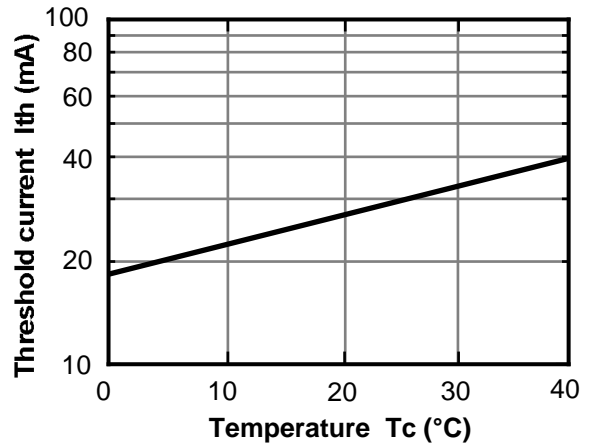
5-318, Tachikawa, Tottori 680-8634 Japan TEL : +81-857-21-2137 FAX : +81-857-21-2161

Characteristics

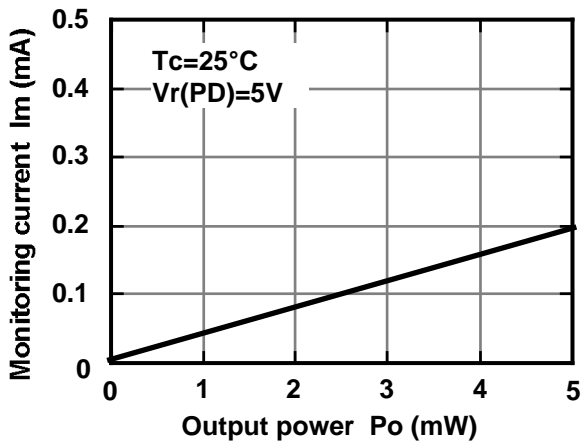
Output power vs. Forward current



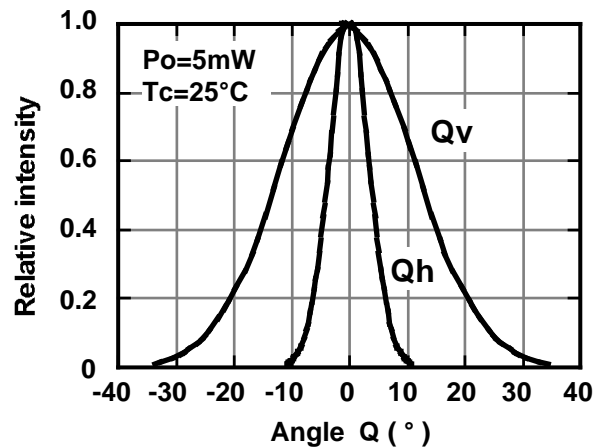
Threshold current vs. Temperature



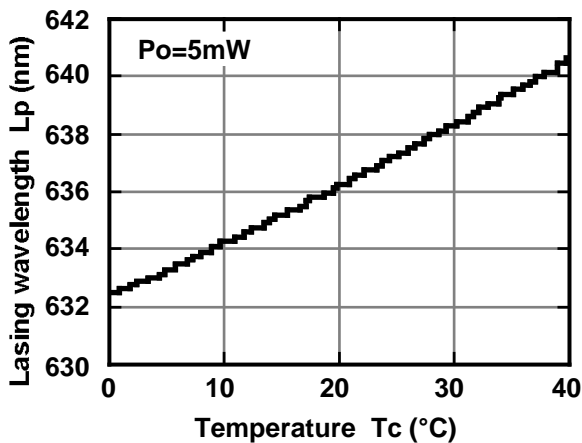
Monitoring current vs. Output power



Beam divergence



Lasing wavelength vs. Temperature



Lasing wavelength vs. Output power

