

INFRARED LASER DIODE



DL-7032-001

Ver.1 Dec. 1999

Features

- Lasing wavelength : 830 nm (Typ.)
- High output power : 100 mW at 50°C
- Package : $\phi 9.0\text{mm}$

Applications

Measurement equipments

Absolute Maximum Ratings

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

Parameter		Symbol	Ratings	Unit
Light Output	CW	P_o	100	mW
Reverse Voltage	Laser	VR	2	V
	PIN		15	
Operating Temperature		T_{opr}	-10 to +50	$^\circ\text{C}$
Storage Temperature		T_{stg}	-40 to +85	$^\circ\text{C}$

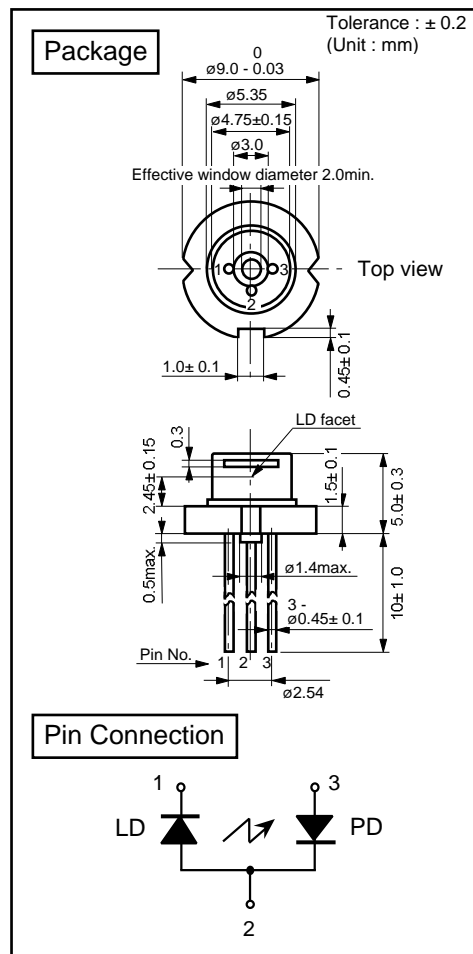
Electrical and Optical Characteristics 1)

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

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		I_{th}	CW	-	50	70	mA
Operating Current		I_{op}	$P_o=100\text{mW}$	-	140	180	mA
Operating Voltage		V_{op}	$P_o=100\text{mW}$	-	1.9	2.4	V
Lasing Wavelength		L_p	$P_o=100\text{mW}$	810	830	840	nm
Beam 2) Divergence	Perpendicular	Q_v	$P_o=100\text{mW}$	12	18	23	$^\circ$
	Parallel	Q_h	$P_o=100\text{mW}$	5	7	11	$^\circ$
Off Axis Angle	Perpendicular	dQ_v	$P_o=100\text{mW}$	-	-	± 3	$^\circ$
	Parallel	dQ_h	$P_o=100\text{mW}$	-	-	± 3	$^\circ$
Differential Efficiency		dP_o/dI_{op}	-	0.6	1.0	1.3	mW/mA
Monitoring Output Current		I_m	$P_o=100\text{mW}$	0.05	0.3	-	mA
Astigmatism		A_s	$P_o=100\text{mW}$	-	-	10	μm

1) initial values, 2) 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

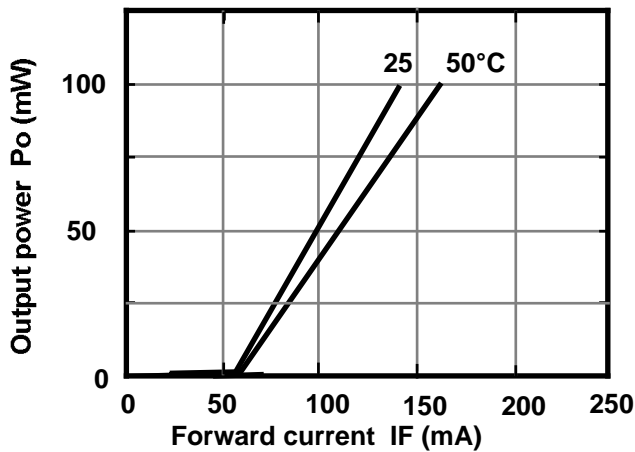
5-318, Tachikawa, Tottori 680-8634 Japan TEL : +81-857-21-2137 FAX : +81-857-21-2161

DL-7032-001

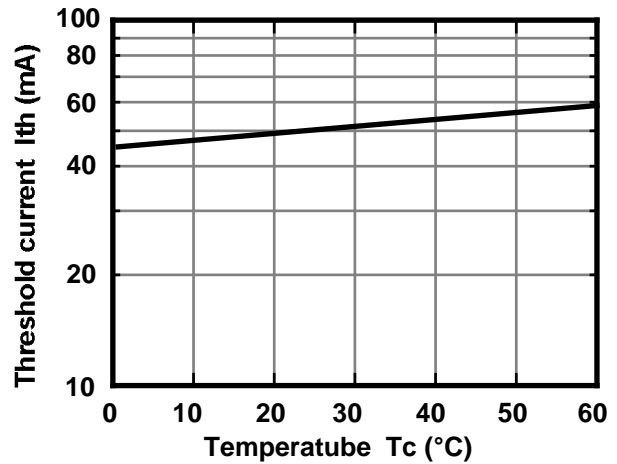


Characteristics

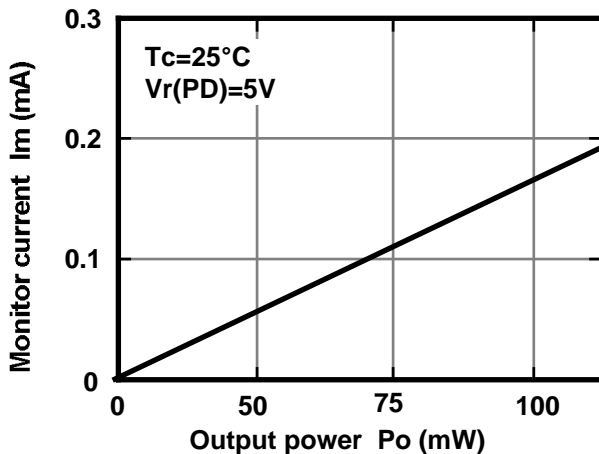
Output power vs. Forward current



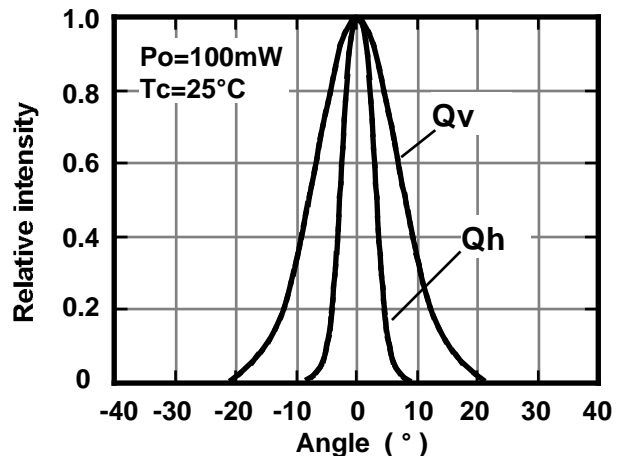
Threshold current vs. Temperature



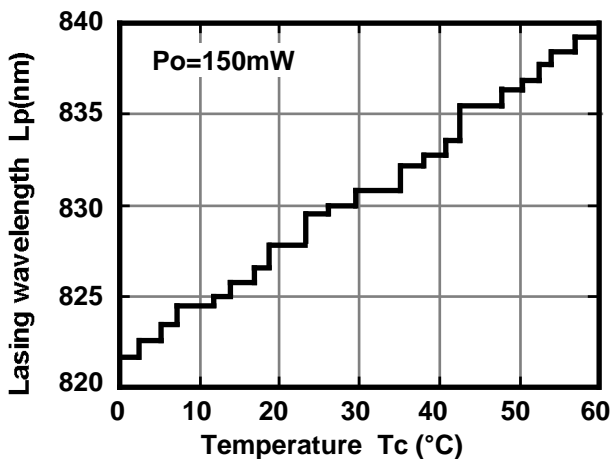
Monitor current vs. Output power



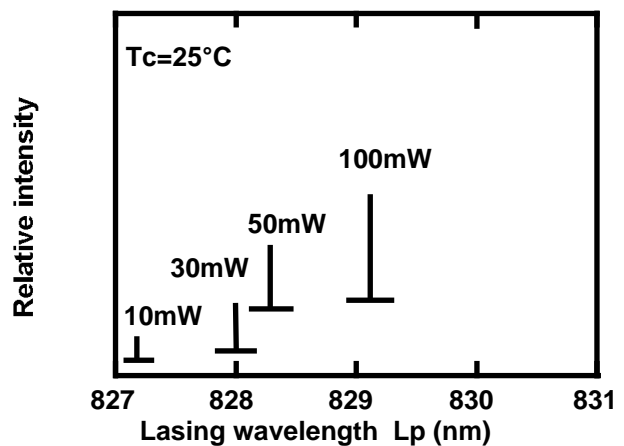
Beam divergence



Lasing wavelength vs. Temperature



Output power vs. Lasing wavelength



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