

RED LASER DIODE

DL-4038-031

SANYO

Ver.1 Apr. 1999

Features

- Short wavelength : 635 nm (Typ.)
- High output power : 10 mW CW
- Low threshold current : Ith = 35 mA (Typ.)
- Low operating voltage : Vop = 2.3 V (Typ.)
- High temperature : Tc = 50°C

Applications

- Bar-code scanner
- Line marker, Leveler

Absolute Maximum Ratings

(Tc=25°C)

Parameter		Symbol	Ratings	Unit
Light Output	CW	Po	10	mW
Reverse Voltage	Laser	VR	2	V
	PD		30	
Operating Temperature		Topr	-10 to +50	°C
Storage Temperature		Tstg	-40 to +85	°C

Electrical and Optical Characteristics ^{1) 2)}

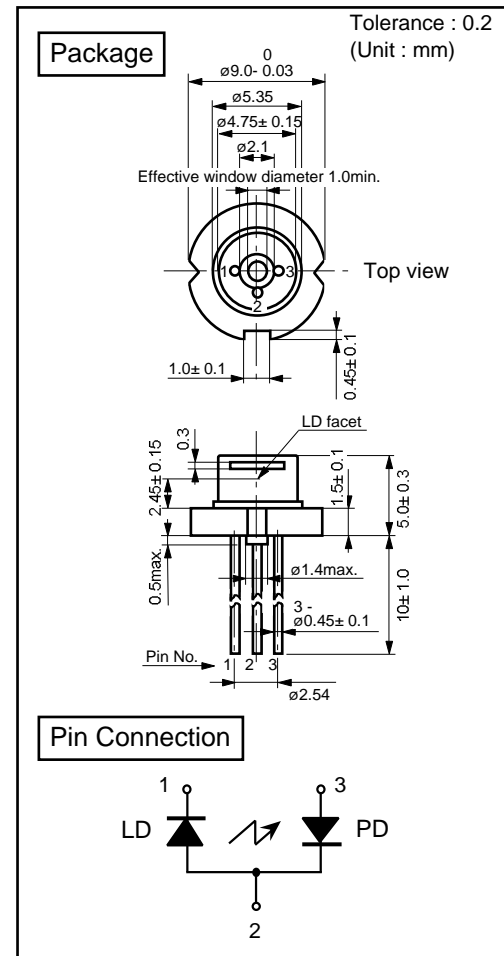
(Tc=25°C)

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		Ith	CW	-	35	60	mA
Operating Current		Iop	Po=10mW	-	55	80	mA
Operating Voltage		Vop	Po=10mW	-	2.3	2.6	V
Lasing Wavelength		Lp	Po=10mW	-	635	645	nm
Beam ³⁾ Divergence	Perpendicular	Qv	Po=10mW	25	30	35	°
	Parallel	Qh	Po=10mW	6	8	10	°
Off Axis Angle	Perpendicular	dQv	-	-	-	± 3	°
	Parallel	dQh	-	-	-	± 3	°
Differential Efficiency		dPo/dIop	-	-	0.5	-	mW/mA
Monitoring Output Current		Im	Po=10mW	0.05	0.15	0.4	mA
Astigmatism		As	Po=10mW	-	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.



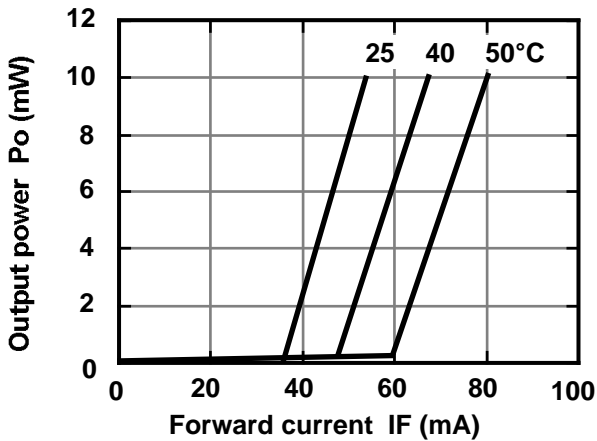
Tottori SANYO Electric Co., Ltd. Electronic Device Business Headquarters

LED Division

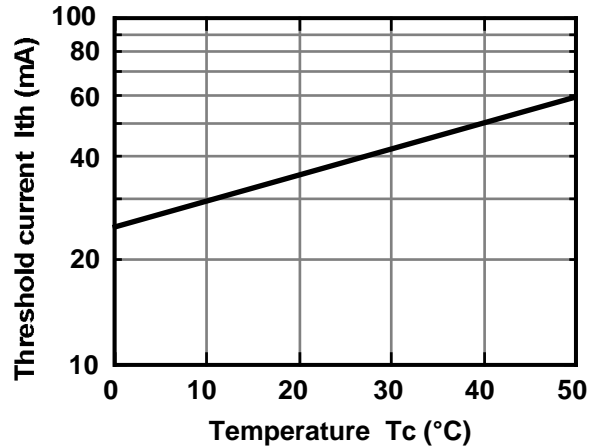
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Characteristics

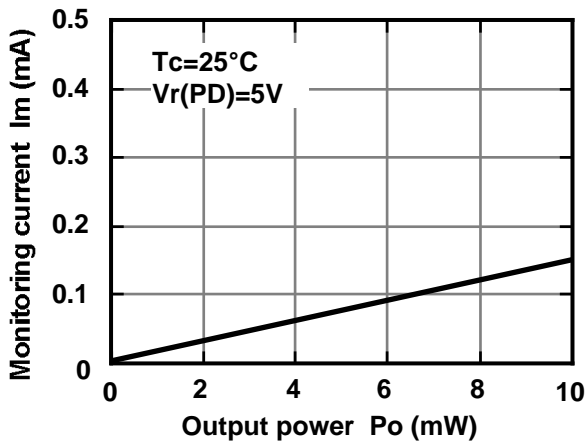
Output power vs. Forward current



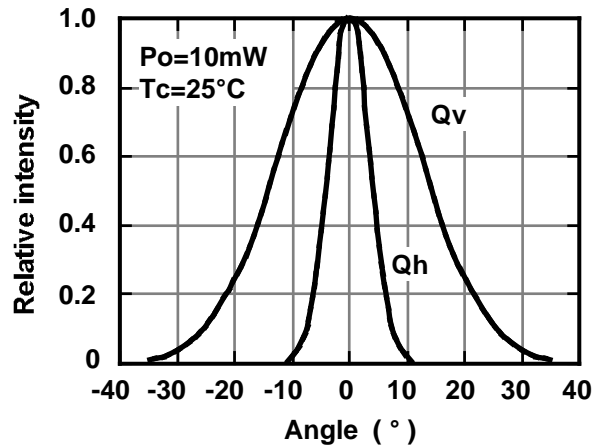
Threshold current vs. Temperature



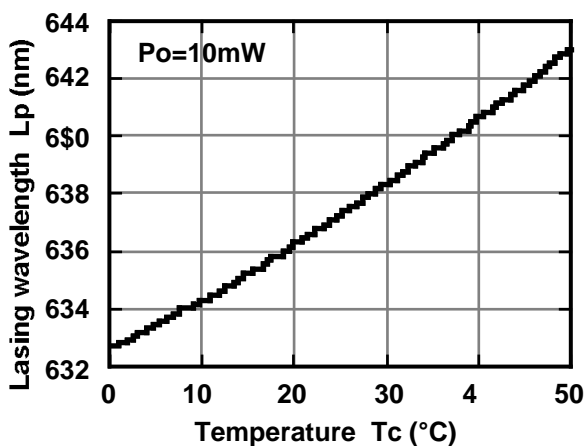
Monitoring current vs. Output power



Beam divergence



Lasing wavelength vs. Temperature



Lasing wavelength vs. Output power

