

# RED LASER DIODE

## DL-LS1034

## Tentative



Ver.1 Oct. 2001

### Features

- Short wavelength : 635 nm (Typ.)
- High output power : 20 mW CW
- Low threshold current :  $I_{th} = 40$  mA (Typ.)
- Low operating voltage :  $V_{op} = 2.3$  V (Typ.)

### Applications

Line marker, Leveler

### Absolute Maximum Ratings

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

Parameter		Symbol	Ratings	Unit
Light Output	CW	$P_o$	25	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 <sup>1) 2)</sup>

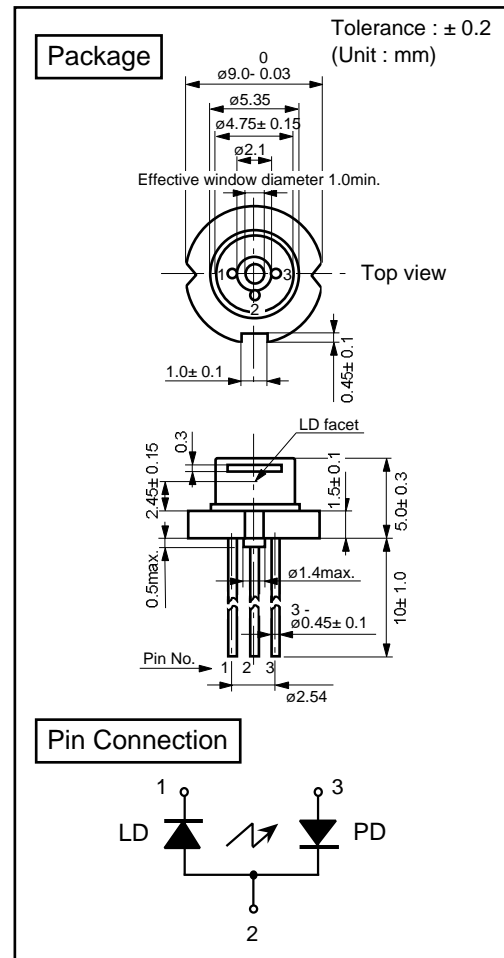
( $T_c=25^\circ\text{C}$ )

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		$I_{th}$	CW	-	40	60	mA
Operating Current		$I_{op}$	$P_o=20\text{mW}$	-	70	85	mA
Operating Voltage		$V_{op}$	$P_o=20\text{mW}$	-	2.3	2.6	V
Lasing Wavelength		$L_p$	$P_o=20\text{mW}$	-	635	645	nm
Beam <sup>3)</sup> Divergence	Perpendicular	Qv	$P_o=20\text{mW}$	22	28	35	$^\circ$
	Parallel	Qh	$P_o=20\text{mW}$	6	7	10	$^\circ$
Off Axis Angle	Perpendicular	dQv	-	-	-	$\pm 3$	$^\circ$
	Parallel	dQh	-	-	-	$\pm 3$	$^\circ$
Differential Efficiency		$dP_o/dI_{op}$	-	-	0.7	-	mW/mA
Monitoring Output Current		$I_m$	$P_o=20\text{mW}$	0.1	0.2	0.5	mA
Astigmatism		As	$P_o=20\text{mW}$	-	8	-	$\mu\text{m}$

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.

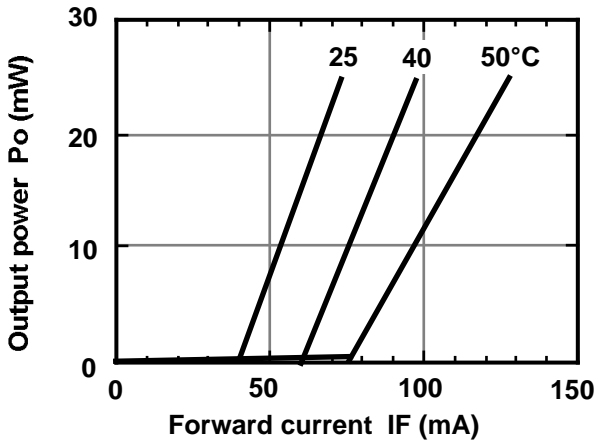


Tottori SANYO Electric Co., Ltd. Electronic Device Business Headquarter  
LED Division

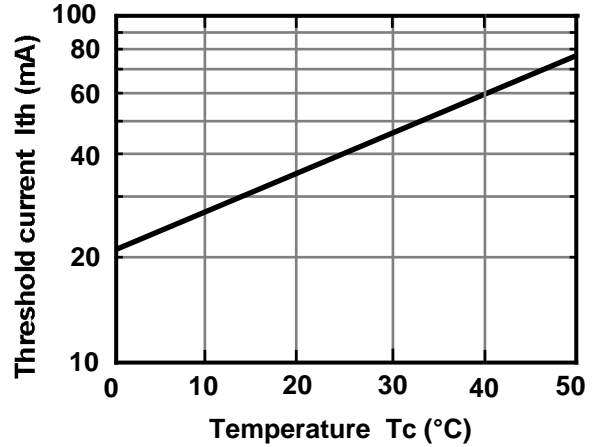
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## Characteristics

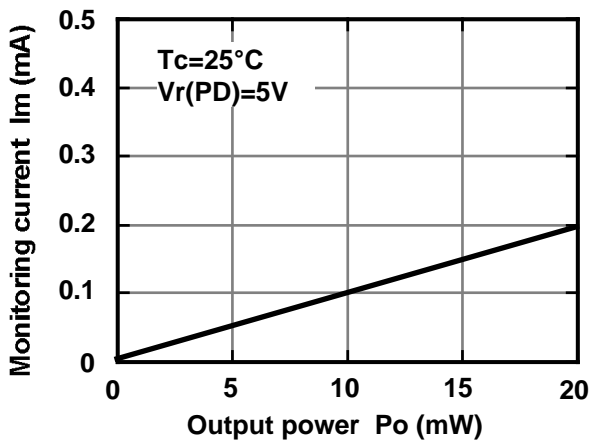
Output power vs. Forward current



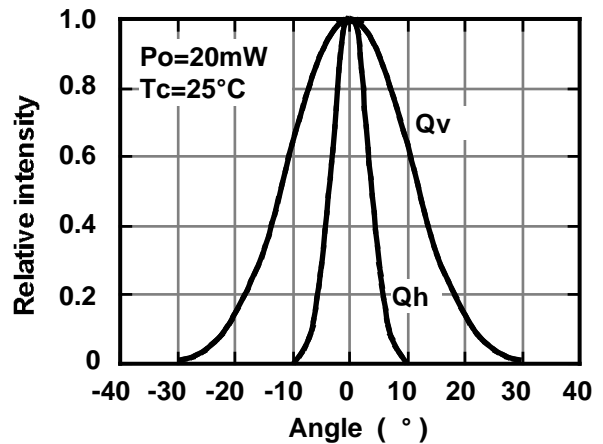
Threshold current vs. Temperature



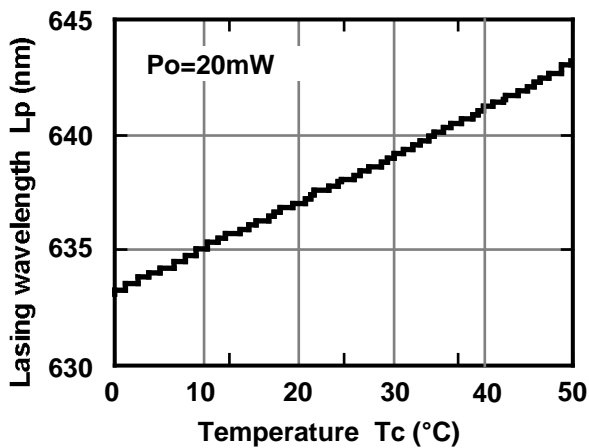
Monitoring current vs. Output power



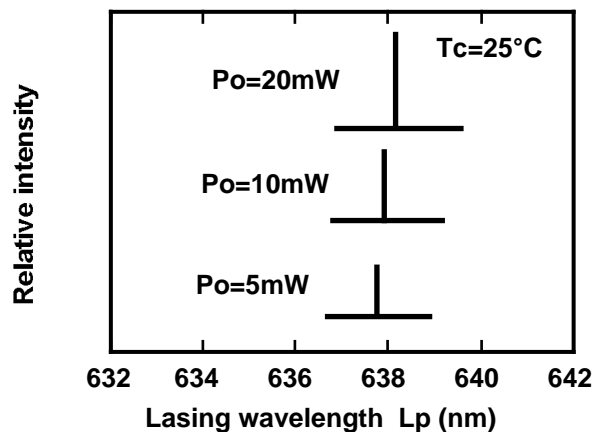
Beam divergence



Lasing wavelength vs. Temperature



Lasing wavelength vs. Output power



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