

# RED LASER DIODE

## DL-LS1193

## Tentative

# SANYO

Ver.1 Apr. 2007

### Features

- Wavelength : 643 nm (Typ.)
- Output power : 80 mW (CW)
- Threshold current :  $I_{th} = 65$  mA (Typ.)
- Operating voltage :  $V_{op} = 2.5$  V (Typ.)

### Applications

Laser display

### Absolute Maximum Ratings

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

Parameter		Symbol	Ratings	Unit
Light Output	CW	$P_o$ (CW)	85 <sup>1)</sup>	mW
Reverse Voltage	Laser	VR	2	V
	PD		30	
Operating Temperature		$T_{opr}$ <sup>2)</sup>	-10 to +50	$^\circ\text{C}$
Storage Temperature		$T_{stg}$ <sup>2)</sup>	-40 to +85	$^\circ\text{C}$

1) Lifetime is not guaranteed in this value.

2) Case temperature.

### Electrical and Optical Characteristics

3) 4) 5) 6)

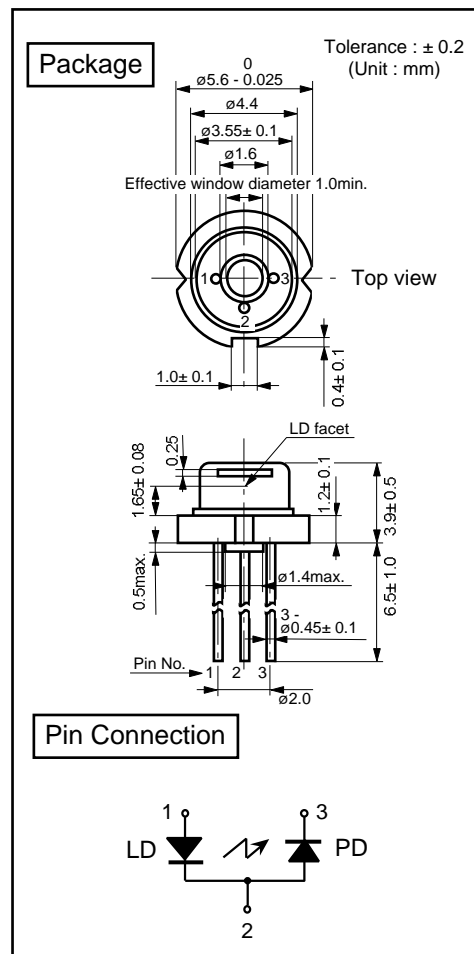
( $T_c=25^\circ\text{C}$ )

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		$I_{th}$	CW	-	65	-	mA
Operating Current		$I_{op}$	$P_o=80\text{mW}$	-	145	-	mA
Operating Voltage		$V_{op}$	$P_o=80\text{mW}$	-	2.5	-	V
Lasing Wavelength		$L_p$	$P_o=80\text{mW}$	-	643	-	nm
Beam Divergence <sup>7)</sup>	Perpendicular	Qv	$P_o=80\text{mW}$	14	19	24	$^\circ$
	Parallel	Qh	$P_o=80\text{mW}$	6	8	13	$^\circ$
Off Axis Angle	Perpendicular	dQv	$P_o=80\text{mW}$	-3	-	3	$^\circ$
	Parallel	dQh	$P_o=80\text{mW}$	-3	-	3	$^\circ$
Differential Efficiency		SE	$P_o=80\text{mW}$	-	1	-	mW/mA
Monitoring Output Current		$I_m$	$P_o=80\text{mW}$ $V_R=5\text{V}$	-	0.15	-	mA

3) Initial values 4) All the above values are evaluated with Tottori Sanyo's measuring apparatus.

5) It makes a typical value a reference value. 6) Measurement condition : CW 7) Full angle at half maximum

Note : The above product specification are subject to change without notice.



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