

BLUE-VIOLET LASER DIODE

DL-LS5010

Tentative

SANYO

Ver.2 July. 2003

Features

- Short wavelength : 405 nm (Typ.)
- Light Output: 50mW CW at 100mW (pulse)
- Low threshold current : $I_{th} = 50$ mA (Typ.)
- Small package : $\phi 5.6$ mm

Applications

Next generation DVD
Laser module

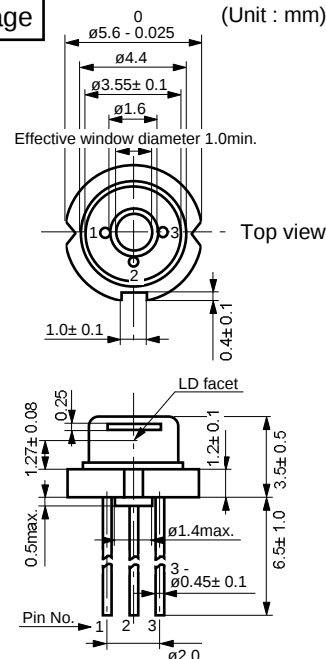
Absolute Maximum Ratings

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

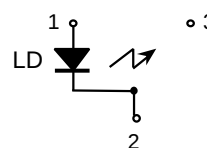
Parameter		Symbol	Ratings	Unit
Light Output	CW	P_o (CW)	50	mW
	Pulse	P_o (pulse)	100	
Reverse Voltage	Laser	VR	2	V
Operating Temperature		T_{opr}	-10 to +60	$^\circ\text{C}$
Storage Temperature		T_{stg}	-40 to +85	$^\circ\text{C}$

Package

Tolerance : ± 0.2
(Unit : mm)



Pin Connection



Electrical and Optical Characteristics

1) 2)

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

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		I_{th}	CW	-	50	-	mA
Operating Current		I_{op}	$P_o = 50\text{mW}$	-	100	-	mA
Operating Voltage		V_{op}	$P_o = 50\text{mW}$	-	5.9	-	V
Lasing Wavelength		L_p	$P_o = 50\text{mW}$	-	405	-	nm
Beam ³⁾ Divergence	Perpendicular	Q_v	$P_o = 50\text{mW}$	-	22	-	$^\circ$
	Parallel	Q_h	$P_o = 50\text{mW}$	-	8	-	$^\circ$
Off Axis Angle	Perpendicular	dQ_v	-	-	-	± 3	$^\circ$
	Parallel	dQ_h	-	-	-	± 2	$^\circ$
Differential Efficiency		dP_o/dI_{op}	-	-	1	-	mW/mA
Astigmatism		As	$P_o = 50\text{mW}$	-	3	-	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.