



BLUE-VIOLET LASER DIODE DL-4146-101S

Tentative

SANYO

Ver.2 Oct. 2007

Features

- Short wavelength : 405 nm (Typ.)
- Low threshold current : $I_{th} = 26 \text{ mA}$ (Typ.)
- Package : Ø5.6 mm with PD

Applications

Industrial Use

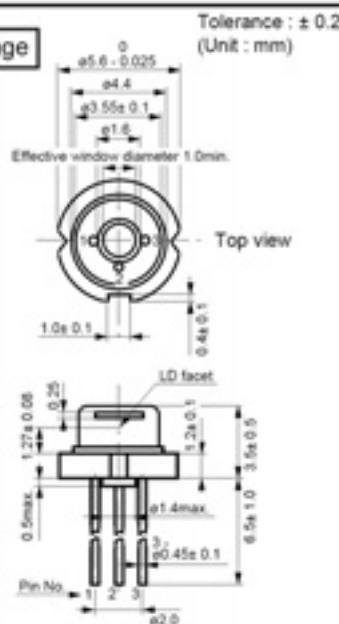
Absolute Maximum Ratings

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

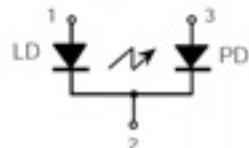
Parameter	Symbol	Ratings	Unit
Light Output	CW	P_o (CW)	20 mW
Reverse Voltage	Laser	V_R	2 V
Operating Temperature ¹⁾	T_{opr}	0 to +75	°C
Storage Temperature	T_{stg}	-40 to +85	°C

1) Case temperature.

Package



Pin Connection



Electrical and Optical Characteristics

2) 3) 4) 6)

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

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current	I_{th}	CW	-	26	50	mA
Operating Current	I_{op}	$P_o=10\text{mW}$	-	35	60	mA
Operating Voltage	V_{op}	$P_o=10\text{mW}$	-	4.8	5.6	V
Lasing Wavelength	λ_p	$P_o=10\text{mW}$	395	405	415	nm
Beam Divergence ⁵⁾	Perpendicular	$P_o=10\text{mW}$	16	19	23	°
	Parallel	$P_o=10\text{mW}$	6	8.5	12	°
Off Axis Angle	Perpendicular	$P_o=10\text{mW}$	-2	-	2	°
	Parallel	$P_o=10\text{mW}$	-2	-	2	°
Differential Efficiency	SE	$P_o=10\text{mW}$	0.7	1.1	-	mW/mA
Monitoring Output Current	I_m	$P_o=10\text{mW}$	0.1	0.2	0.5	mA

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

4) Reference values 5) Full angle at half maximum 6) Measurement condition : CW