



## BLUE-VIOLET LASER DIODE DL-4146-301S Tentative



Ver.3 Oct. 2007

### Features

- Short wavelength : 405 nm (Typ.)
- Low threshold current :  $I_{th} = 26$  mA (Typ.)
- Package :  $\phi 5.6$  mm

### 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 VR	2	V
Operating Temperature <sup>1)</sup>	$T_{opr}$	0 to +75	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-40 to +85	$^\circ\text{C}$

1) Case temperature.

### Electrical and Optical Characteristics

2) 3) 4) 6)

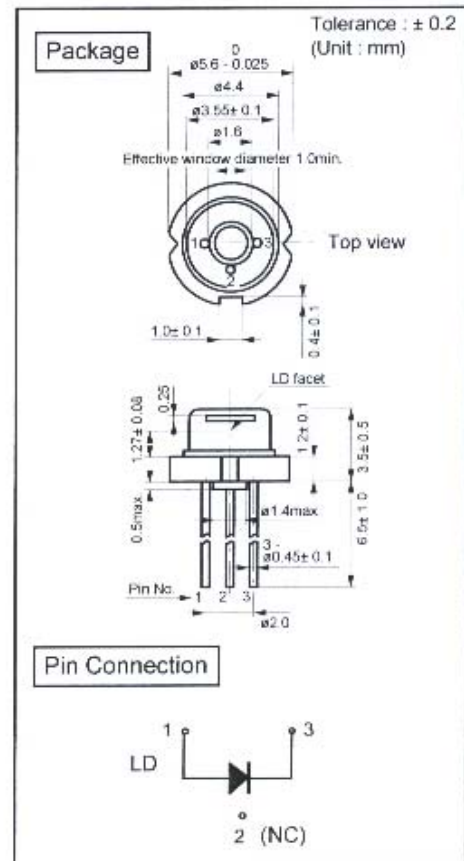
( $T_c=25^\circ\text{C}$ )

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current	$I_{th}$	CW	-	26	50	mA
Operating Current	$I_{op}$	$P_o=10\text{mW}$	-	34	60	mA
Operating Voltage	$V_{op}$	$P_o=10\text{mW}$	-	4.8	5.6	V
Lasing Wavelength	$L_p$	$P_o=10\text{mW}$	395	405	415	nm
Beam <sup>5)</sup> Divergence	Perpendicular	$Q_v$	$P_o=10\text{mW}$	16	19	$^\circ$
	Parallel	$Q_h$	$P_o=10\text{mW}$	6	8.5	$^\circ$
Off Axis Angle	Perpendicular	$dQ_v$	$P_o=10\text{mW}$	-2	-	$^\circ$
	Parallel	$dQ_h$	$P_o=10\text{mW}$	-2	-	$^\circ$
Differential Efficiency	SE	$P_o=10\text{mW}$	0.8	1.3	-	mW/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

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





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