

# BLUE-VIOLET LASER DIODE

## DL-LS5001

Tentative



Ver.1 Jun. 2003

Features

- Short wavelength : 405 nm (Typ.)
- Light Output: 5mW CW
- Low threshold current : I<sub>th</sub> = 50 mA (Typ.)
- Small package :  $\phi 5.6$  mm
- Pin Connection : -power supply system

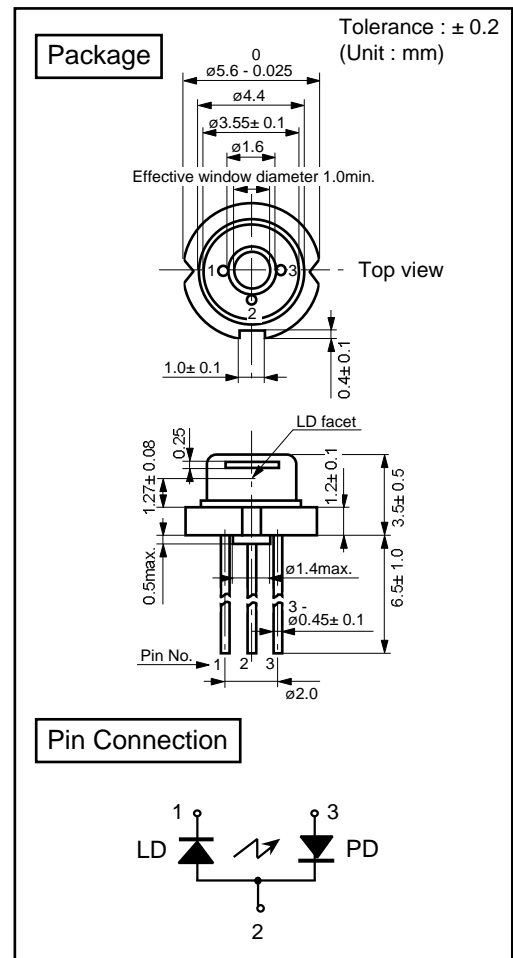
Applications

Laser module

Absolute Maximum Ratings

(T<sub>c</sub>=25°C)

Parameter		Symbol	Ratings	Unit
Light Output	CW	P <sub>o</sub>	7	mW
Reverse Voltage	Laser	V <sub>R</sub>	2	V
	PD		30	
Operating Temperature		T <sub>opr</sub>	-10 to +60	°C
Storage Temperature		T <sub>stg</sub>	-40 to +85	°C



Electrical and Optical Characteristics <sup>1) 2)</sup>

(T<sub>c</sub>=25°C)

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		I <sub>th</sub>	CW	-	50	65	mA
Operating Current		I <sub>op</sub>	P <sub>o</sub> =5mW	-	58	73	mA
Operating Voltage		V <sub>op</sub>	P <sub>o</sub> =5mW	-	5.5	6.5	V
Lasing Wavelength		L <sub>p</sub>	P <sub>o</sub> =5mW	395	405	415	nm
Beam <sup>3)</sup> Divergence	Perpendicular	Q <sub>v</sub>	P <sub>o</sub> =5mW	20	25	30	°
	Parallel	Q <sub>h</sub>	P <sub>o</sub> =5mW	7	8	12	°
Off Axis Angle	Perpendicular	dQ <sub>v</sub>	-	-	-	$\pm 3$	°
	Parallel	dQ <sub>h</sub>	-	-	-	$\pm 2$	°
Differential Efficiency		dP <sub>o</sub> /dI <sub>op</sub>	-	0.3	0.6	-	mW/mA
Monitoring Output Current		I <sub>m</sub>	P <sub>o</sub> =5mW	0.03	0.06	-	mA
Astigmatism		A <sub>s</sub>	P <sub>o</sub> =5mW	-	3	-	$\mu$ 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.