

# BLUE-VIOLET LASER DIODE

## DL-LS5024

Tentative



Ver.1 Dec. 2006

Features

- Short wavelength : 405 nm (Typ.)
- Low threshold current :  $I_{th} = 28$  mA (Typ.)
- Package :  $\phi 5.6$  mm

Applications

Industrial Use

Standard usage condition

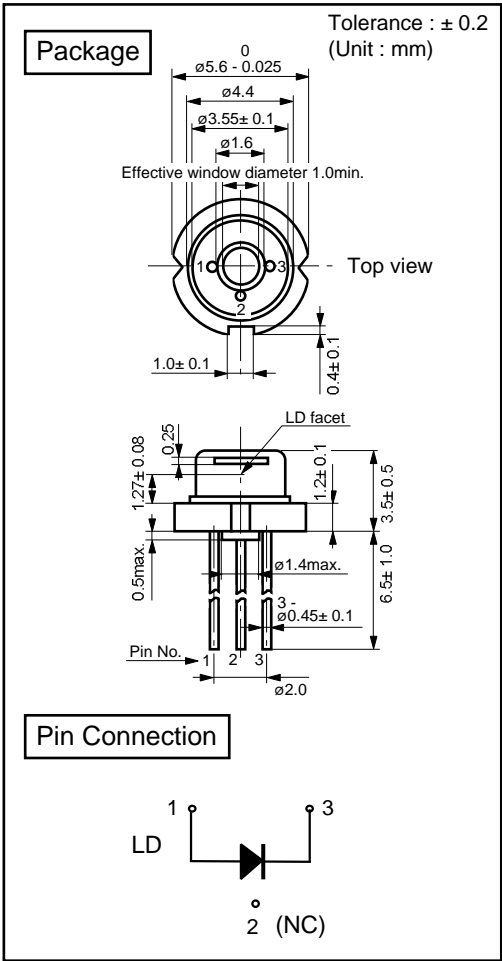
- Light Output:  $\leq 10$  mW CW

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 +60	$^\circ\text{C}$
Storage Temperature		$T_{stg}$	-40 to +85	$^\circ\text{C}$

1) Case temperature.



Electrical and Optical Characteristics <sup>2) 3) 4) 6)</sup>

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

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		$I_{th}$	CW	-	28	50	mA
Operating Current		$I_{op}$	$P_o=10$ mW	-	37	60	mA
Threshold Voltage		$V_{th}$	CW	-	4.5	5.0	V
Operating Voltage		$V_{op}$	$P_o=10$ mW	-	4.6	5.5	V
Lasing Wavelength		$L_p$	$P_o=10$ mW	395	405	415	nm
Beam <sup>3)</sup> Divergence	Perpendicular	Qv	$P_o=10$ mW	15	18	23	$^\circ$
	Parallel	Qh	$P_o=10$ mW	6	8	12	$^\circ$
Off Axis Angle	Perpendicular	dQv	$P_o=10$ mW	-3	-	3	$^\circ$
	Parallel	dQh	$P_o=10$ mW	-2	-	2	$^\circ$
Differential Efficiency		SE	$P_o=10$ mW	0.8	1.2	-	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.