



## BLUE-VIOLET LASER DIODE DL-3146-151



Ver.5 Jun. 2006

### Features

- Short wavelength : 405 nm (Typ.)
- Light Output: 5mW CW
- Low threshold current :  $I_{th} = 35$  mA (Typ.)
- Package :  $\phi 5.6$  mm

### Applications

Industrial Use  
Laser module

### Absolute Maximum Ratings

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

Parameter	Symbol	Rated	Unit
Light Output CW	$P_o$	7	mW
Reverse Voltage	Laser	2	V
	PD	30	
Operating Temperature	$T_{opr}$	0 to +60	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-40 to +85	$^\circ\text{C}$

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

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

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit	
Threshold Current	$I_{th}$	CW	-	35	55	mA	
Operating Current	$I_{op}$	$P_o=5\text{mW}$	-	40	60	mA	
Threshold Voltage	$V_{th}$	CW	-	4.4	5.4	V	
Operating Voltage	$V_{op}$	$P_o=5\text{mW}$	-	4.5 <sup>4)</sup>	5.5	V	
Lasing Wavelength	$\lambda_p$	$P_o=5\text{mW}$	395	405	415	nm	
Beam <sup>3)</sup> Divergence	Parallel	$Q_v$	$P_o=5\text{mW}$	16	20	24	$^\circ$
	Parallel	$Q_h$	$P_o=5\text{mW}$	6	8	14	$^\circ$
Off Axis Angle	Perpendicular	$dQ_v$	-	-3	-	3	$^\circ$
	Parallel	$dQ_h$	-	-2	-	2	$^\circ$
Differential Efficiency	SE	-	0.6	0.9	-	mW/mA	
Monitoring Output Current <sup>5)</sup>	$I_m$	$P_o=5\text{mW}$	0.1	0.2	0.5	mA	

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

3) Full angle at half maximum 4) Operating Voltage of this laser is higher than conventional laser(5.0V)

5) We don't guarantee precision of light output power of this laser diode with an internal monitor diode in an APC circuit for a long period of time.

