

# BLUE-VIOLET LASER DIODE

## DL-7146-101S Tentative



Ver.1 Oct. 2007

### Features

- Short wavelength : 405 nm (Typ.)
- Package :  $\phi 5.6$  mm with PD

### Applications

Industrial Use

### Absolute Maximum Ratings

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

Parameter		Symbol	Ratings	Unit
Light Output	CW	Po (CW)	85	mW
Reverse Voltage	Laser	VR	2	V
Operating Temperature <sup>1)</sup>		Topr	0 to +75	$^\circ\text{C}$
Storage Temperature		Tstg	-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 <sub>th</sub>	CW	-	45	60	mA
Operating Current		I <sub>op</sub>	Po=80mW	-	110	140	mA
Operating Voltage		V <sub>op</sub>	Po=80mW	-	5.4	6.0	V
Lasing Wavelength		L <sub>p</sub>	Po=80mW	395	405	415	nm
Beam <sup>5)</sup> Divergence	Perpendicular	Q <sub>v</sub>	Po=80mW	16	19	23	$^\circ$
	Parallel	Q <sub>h</sub>	Po=80mW	6	8	12	$^\circ$
Off Axis Angle	Perpendicular	dQ <sub>v</sub>	Po=80mW	-2	-	2	$^\circ$
	Parallel	dQ <sub>h</sub>	Po=80mW	-2	-	2	$^\circ$
Differential Efficiency		SE	Po=80mW	0.8	1.2	-	mW/mA
Monitoring Output Current		I <sub>m</sub>	Po=80mW	0.1	0.3	1.0	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.

