

# BLUE-VIOLET LASER DIODE

## DL-5146-251

### Tentative

# SANYO

Ver.1 Jan. 2005

#### Features

- Short wavelength : 405 nm (Typ.)
- Light Output: 35mW CW at 35mW (pulse)
- Low threshold current :  $I_{th} = 50$  mA (Typ.)
- Package :  $\phi 5.6$  mm

#### Applications

Next generation DVD  
Laser module

#### Absolute Maximum Ratings

(T<sub>c</sub>=25°C)

Parameter		Symbol	Ratings	Unit
Light Output	CW	P <sub>o</sub> (CW)	35	mW
	Pulse	P <sub>o</sub> (pulse)	50	
Reverse Voltage	Laser	VR	2	V
Operating Temperature		T <sub>opr</sub>	0 to +60	°C
Storage Temperature		T <sub>stg</sub>	-40 to +85	°C

1) Pulse Width 0.1μs, Duty 50%

#### Electrical and Optical Characteristics

1) 2)

(T<sub>c</sub>=25°C)

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		I <sub>th</sub>	CW	-	35	70	mA
Operating Current		I <sub>op</sub>	P <sub>o</sub> =35mW	-	70	100	mA
Operating Voltage		V <sub>op</sub>	P <sub>o</sub> =35mW	-	5.5	6.5	V
Lasing Wavelength		L <sub>p</sub>	P <sub>o</sub> =35mW	395	405	415	nm
Beam <sup>3)</sup> Divergence	Perpendicular	Q <sub>v</sub>	P <sub>o</sub> =35mW	16	20	28	°
	Parallel	Q <sub>h</sub>	P <sub>o</sub> =35mW	6	9	14	°
Off Axis Angle	Perpendicular	dQ <sub>v</sub>	-	-3	-	3	°
	Parallel	dQ <sub>h</sub>	-	-2	-	2	°
Differential Efficiency		SE	-	0.6	1.0	-	mW/mA

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.

