



BLUE-VIOLET LASER DIODE

DL-4146-101S Tentative



Ver.2 Oct. 2007

Features

- Short wavelength : 405 nm (Typ.)
- Low threshold current : I_{th} = 26 mA (Typ.)
- Package : ø5.6 mm with PD

Applications

Industrial Use

Absolute Maximum Ratings

(T_c=25°C)

Parameter	Symbol	Ratings	Unit
Light Output CW	P _o (CW)	20	mW
Reverse Voltage Laser	V _R	2	V
Operating Temperature ¹⁾	T _{opr}	0 to +75	°C
Storage Temperature	T _{stg}	-40 to +85	°C

1) Case temperature.

Electrical and Optical Characteristics

2) 3) 4) 6)

(T_c=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit	
Threshold Current	I _{th}	CW	-	26	50	mA	
Operating Current	I _{op}	P _o =10mW	-	35	60	mA	
Operating Voltage	V _{op}	P _o =10mW	-	4.8	5.6	V	
Lasing Wavelength	L _p	P _o =10mW	395	405	415	nm	
Beam Divergence ⁵⁾	Perpendicular	Q _v	P _o =10mW	16	19	23	°
	Parallel	Q _h	P _o =10mW	6	8.5	12	°
Off Axis Angle	Perpendicular	dQ _v	P _o =10mW	-2	-	2	°
	Parallel	dQ _h	P _o =10mW	-2	-	2	°
Differential Efficiency	SE	P _o =10mW	0.7	1.1	-	mW/mA	
Monitoring Output Current	I _m	P _o =10mW	0.1	0.2	0.5	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

