

BLUE-VIOLET LASER DIODE

DL-4146-301S

SANYO

Ver.3 Oct. 2007

Tentative

Features

- Short wavelength : 405 nm (Typ.)
- Low threshold current : $I_{th} = 26$ mA (Typ.)
- Package : $\phi 5.6$ mm

Applications

Industrial Use

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 ¹⁾		T_{opr}	0 to +75	$^\circ\text{C}$
Storage Temperature		T_{stg}	-40 to +85	$^\circ\text{C}$

1) Case temperature.

Electrical and Optical Characteristics

2) 3) 4) 6)

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

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		I_{th}	CW	-	26	50	mA
Operating Current		I_{op}	$P_o=10\text{mW}$	-	34	60	mA
Operating Voltage		V_{op}	$P_o=10\text{mW}$	-	4.8	5.6	V
Lasing Wavelength		L_p	$P_o=10\text{mW}$	395	405	415	nm
Beam Divergence ⁵⁾	Perpendicular	Q_v	$P_o=10\text{mW}$	16	19	23	$^\circ$
	Parallel	Q_h	$P_o=10\text{mW}$	6	8.5	12	$^\circ$
Off Axis Angle	Perpendicular	dQ_v	$P_o=10\text{mW}$	-2	-	2	$^\circ$
	Parallel	dQ_h	$P_o=10\text{mW}$	-2	-	2	$^\circ$
Differential Efficiency		SE	$P_o=10\text{mW}$	0.8	1.3	-	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.

