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BLUE - VIOLET LASER DIODE

DL-7146-101S

Tentative

SANYO

Ver.3 April, 2009

Features

- Wavelength : 405nm(Typ.)
- Output power : 80mW
- Threshold current : $I_{th}=45\text{mA}$ (Typ.)
- Package : $\phi 5.6\text{mm}$ with PD

Applications

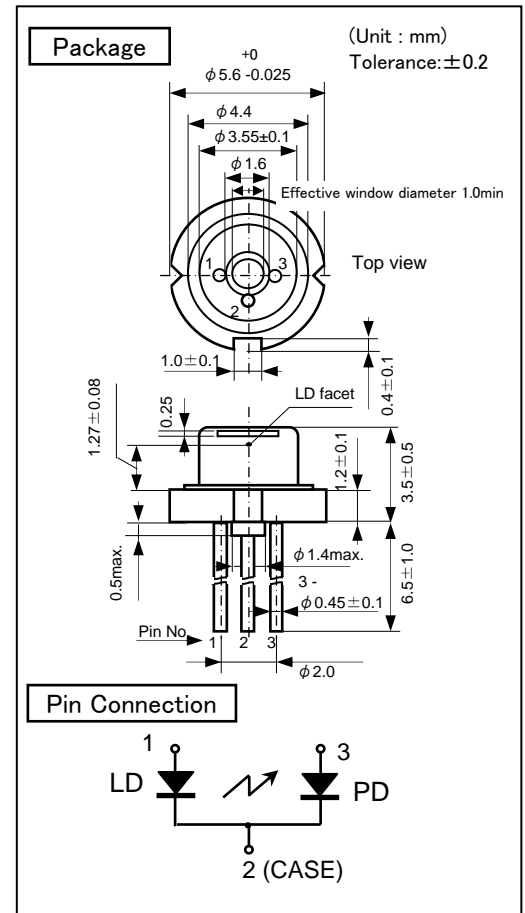
- Laser module
- Industrial Use

Absolute Maximum Ratings

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

Parameter	Symbol	Ratings	Unit
Light Output	Po(CW)	85	mW
Reverse Voltage (LD)	VR	2	V
Operating Temperature ¹⁾	Topr	0 to +75	$^\circ\text{C}$
Storage Temperature ¹⁾	Tstg	-40 to +85	$^\circ\text{C}$

1) Case temperature.



Electrical and Optical Characteristics ^{2) 3) 4) 5)}

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

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit	
Threshold Current	I_{th}	CW	-	45	60	mA	
Operating Current	I_{op}	$P_o=80\text{mW}$	-	110	140	mA	
Operating Voltage	V_{op}	$P_o=80\text{mW}$	-	5.4	6.0	V	
Lasing Wavelength	L_p	$P_o=80\text{mW}$	395	405	415	nm	
Beam ⁶⁾ Divergence	Perpendicular	Q_v	$P_o=80\text{mW}$	16	19	23	$^\circ$
	Parallel	Q_h	$P_o=80\text{mW}$	6	8	12	$^\circ$
Off Axis Angle	Perpendicular	dQ_v	$P_o=80\text{mW}$	-3	-	3	$^\circ$
	Parallel	dQ_h	$P_o=80\text{mW}$	-3	-	3	$^\circ$
Differential Efficiency	SE	$P_o=80\text{mW}$	0.8	1.2	-	mW/mA	
Monitoring Output Current	I_m	$P_o=80\text{mW}$	0.1	0.3	1.0	mA	

2) Initial Values. 3) All the above values are evaluated with sanyo's measuring apparatus.

4) It makes a typical value a Reference Value. 5) Measurement condition : CW. 6) Full angle at half maximum.

Note : The above product specification are subject to change without notice.

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