

BLUE-VIOLET LASER DIODE

SDL-405-140-511E



SEMICOM
VISUAL

Features

Wavelength: 405nm (Typ.)
Threshold current: $I_{th} = 135\text{mA}$ (Typ.)
Optical Power: $P_o = 140\text{mW}$ (Typ.)
Package: $\phi 5.6\text{mm}$

Applications

Industrial use

Absolute Maximum Ratings

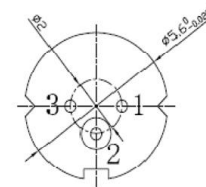
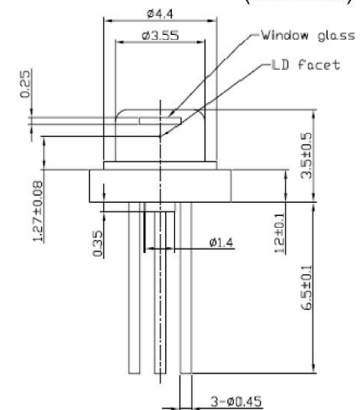
($T_c=25^\circ\text{C}$)

Items	Symbols	Values	Unit
Optical Output Power	P_o	150	mW
Laser Diode Reverse Voltage	V	5	V
Photo Diode Reverse Voltage	V	-	V
Operating Temperature	T_{opr}	$-10^{\sim}+70$	$^\circ\text{C}$
Storage Temperature	T_{stg}	$-40^{\sim}+80$	$^\circ\text{C}$

1) Case Temperature

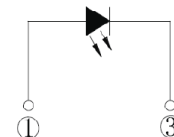
Package

Tolerance : ± 0.2
(Unit : mm)



Pin Connection

②



Electrical and Optical Characteristics

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

Items	Symbols	Min	Type	Max.	Unit	Condition
Optical Output Power	P_o	-	120	150	mW	CW
Threshold Current	I_{th}	-	35	50	mA	CW
Operating Current	I_{op}	-	135	150	mA	$P_o=140\text{mW}$
Slope Efficiency	η	-	1.3	1.6	mW/mA	$P_o=140\text{mW}$
Operating Voltage	V_{op}	-	4.8	5.5	V	$P_o=140\text{mW}$
Monitor Current	I_m	-	-	-	mA	$P_o=140\text{mW}$
Lasing Wavelength	λ	400	406	415	nm	$P_o=140\text{mW}$
Beam Divergence	//	6	9	14	$^\circ$	$P_o=140\text{mW}$
	\perp	16	20	24	$^\circ$	$P_o=140\text{mW}$
Beam Angle	$\triangle //$	-	-	± 3	$^\circ$	$P_o=140\text{mW}$
	$\triangle \perp$	-	-	± 4	$^\circ$	$P_o=140\text{mW}$

* Angle at 50% peak intensity (full-width at half-maximum)

Note: The above specification is subject to change without notice