

Blue-Violet Laser Diode

Part No: LD-405-05-70-M-2



Features

- ※ Short wavelength: $\lambda=405\text{nm}$ (Type)
- ※ Low threshold current: $I_{th}=20\text{mA}$ (Type)
- ※ Output optical power: 5mW (CW)
- ※ Package: T0-18($\Phi 5.6\text{mm}$)

Applications

- ※ Disc/HD DVD driver
- ※ Industrial Use

Absolute Maximum Rating at $T_c=25^\circ\text{C}$

Items	Symbols	Values	Unit
Optical Output Power	P_o (CW)	8	mW
Laser Diode Reverse Voltage	V	5	V
Photo Diode Reverse Voltage	V	30	V
Operating Temperature	T_{opr}	$0\sim+70$	$^\circ\text{C}$
Storage Temperature	T_{stg}	$-40\sim+80$	$^\circ\text{C}$

Electrical and Optical Characteristics at $T_c=25^\circ\text{C}$

Items	Symbols	Min	Type	Max.	Unit	Condition
Optical Output Power	P_o	-	8	-	mW	CW
Threshold Current	I_{th}	-	20	40	mA	CW
Operating Current	I_{op}	-	25	45	mA	$P_o=5\text{mW}$
Slope Efficiency	η	-	1.3	-	mW/mA	$P_o=5\text{mW}$
Operating Voltage	V_{op}	-	4.8	5.6	V	$P_o=5\text{mW}$
Monitor Current	I_m	0.1	0.2	1	mA	$P_o=5\text{mW}$
Lasing Wavelength	λ	400	405	410	nm	$P_o=5\text{mW}$
Beam Divergence	//	6	9	12	$^\circ$	$P_o=5\text{mW}$
	\perp	16	20	24	$^\circ$	$P_o=5\text{mW}$
Beam Angle	Δ //	-	-	± 3	$^\circ$	$P_o=5\text{mW}$
	$\Delta\perp$	-	-	± 2	$^\circ$	$P_o=5\text{mW}$

1) Measurement condition: CW

2) Full angle at half maximum.

3) All the above values are measured by OPELUS method.

Blue-Violet Laser Diode

Package and Electrical connection

