

Infrared Laser Diode

Part No: LD-780-05-70-N-2



Features

- ※ Wavelength: $\lambda=785\text{nm}$ (Type)
- ※ Low threshold current: $I_{\text{th}}=35\text{mA}$ (Type)
- ※ Output optical power: 5mW
- ※ Package: T0-18($\Phi 5.6\text{mm}$)

Applications

- ※ Industrial Use

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

Items	Symbols	Values	Unit
Optical Output Power	P_o (CW)	7	mW
	V_r (LD)	2	V
Laser Diode Reverse Voltage	V_r (PD)	30	V
Operating Temperature	T_{opr}	$-10\sim+70$	$^\circ\text{C}$
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	-	5	-	mW	CW
Threshold Current	I_{th}	25	30	35	mA	CW
Operating Current	I_{op}	35	40	50	mA	$P_o=5\text{mW}$
Slope Efficiency	SE	0.3	0.5	0.8	mW/mA	$P_o=5\text{mW}$
Operating Voltage	V_{op}	1.7	1.9	2	V	$P_o=5\text{mW}$
Monitor Current	I_m	-	0.2	-	mA	$P_o=5\text{mW}$
Lasing Wavelength	λ	775	785	795	nm	$P_o=5\text{mW}$
Beam Divergence	//	-	11	-	$^\circ$	$P_o=5\text{mW}$
	\perp	-	37	-	$^\circ$	$P_o=5\text{mW}$
Beam Angle	Δ //	-	-	± 2	$^\circ$	$P_o=5\text{mW}$
	Δ \perp	-	-	± 2	$^\circ$	$P_o=5\text{mW}$
Emission Point Accuracy	$\Delta X\Delta Y\Delta Z$	-80	-	80	μm	$P_o=5\text{mW}$

1) Measurement condition: CW

2) Full angle at half maximum.

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

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Package and Electrical connection

