

Infrared Laser Diode

Part No: LD-850-50-50-N-2



Features

- ※ Wavelength: $\lambda = 850\text{nm}$ (Type)
- ※ Output optical power: 50mW
- ※ 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)	50	mW
	V_r (LD)	2	V
Laser Diode Reverse Voltage	V_r (PD)	30	V
Operating Temperature	T_{opr}	$-10 \sim +50$	$^\circ\text{C}$
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	-	50	-	mW	CW
Threshold Current	I_{th}	-	15	25	mA	CW
Operating Current	I_{op}	-	75	85	mA	$P_o=50\text{mW}$
Slope Efficiency	η	0.5	0.8	-	mW/mA	$P_o=50\text{mW}$
Operating Voltage	V_{op}	-	1.8	2.4	V	$P_o=50\text{mW}$
Monitor Current	I_m	-	0.4	0.8	mA	$P_o=50\text{mW}$
Lasing Wavelength	λ	840	850	860	nm	$P_o=50\text{mW}$
Beam Divergence	//	9	12	15	$^\circ$	$P_o=50\text{mW}$
	\perp	28	30	35	$^\circ$	$P_o=50\text{mW}$
Beam Angle	$\Delta //$	-	-	± 3	$^\circ$	$P_o=50\text{mW}$
	$\Delta \perp$	-	-	± 3	$^\circ$	$P_o=50\text{mW}$
Emission Point Accuracy	$\Delta X \Delta Y \Delta Z$	-80	-	80	μm	-

- 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

