

Infrared Laser Diode

Part No: LD-850-1A-50-N-3



Features

- ※ Wavelength: $\lambda = 850\text{nm}$ (Type)
- ※ Output optical power: 100mW (CW)
- ※ Package: T0-5 ($\Phi 9\text{mm}$)

Applications

- ※ Industrial Use

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

Items	Symbols	Values	Unit
Optical Output Power	P_o (CW)	100	mW
Laser Diode Reverse Voltage	V_r	2	V
Photo Diode Reverse Voltage	V_r (PIN)	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	-	-	120	mW	CW
Threshold Current	I_{th}	-	100	150	mA	CW
Operating Current	I_{op}	-	250	300	mA	$P_o=100\text{mW}$
Monitor Current	I_m	-	1	-	mA	$P_o=100\text{mW}$
Slope Efficiency	η	0.5	0.7	-	mW/mA	$P_o=100\text{mW}$
Operating Voltage	V_{op}	-	2	2.2	V	$P_o=100\text{mW}$
Lasing Wavelength	λ	830	850	870	nm	$P_o=100\text{mW}$
Beam Divergence	//	6	8	10	$^\circ$	$P_o=100\text{mW}$
	\perp	30	35	40	$^\circ$	$P_o=100\text{mW}$
Beam Angle	$\Delta //$	-	-	± 3	$^\circ$	$P_o=100\text{mW}$
	$\Delta \perp$	-	-	± 3	$^\circ$	$P_o=100\text{mW}$
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

