

Red Laser Diode

Part No: LD-670-05-50-N-2



Features

- ※ Wavelength: $\lambda = 670\text{nm}$ (Type)
- ※ Threshold current: $I_{th} = 20\text{mA}$ (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}	$-10 \sim +50$	$^\circ\text{C}$
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	-	5	7	mW	CW
Threshold Current	I_{th}	-	20	40	mA	CW
Operating Current	I_{op}	-	30	50	mA	$P_o = 5\text{mW}$
Slope Efficiency	η	0.4	0.5	0.8	mW/mA	$P_o = 5\text{mW}$
Operating Voltage	V_{op}	-	2.3	2.6	V	$P_o = 5\text{mW}$
Monitor Current	I_m	0.1	0.2	0.5	mA	$P_o = 5\text{mW}$
Lasing Wavelength	λ	660	670	680	nm	$P_o = 5\text{mW}$
Beam Divergence	//	7	9	11	$^\circ$	$P_o = 5\text{mW}$
	\perp	22	28	35	$^\circ$	$P_o = 5\text{mW}$
Beam Angle	$\Delta //$	-	-	± 3	$^\circ$	$P_o = 5\text{mW}$
	$\Delta \perp$	-	-	± 3	$^\circ$	$P_o = 5\text{mW}$
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

