

# Infrared Laser Diode

Part No: LD-980-5A-40-A-3



## Features

- ※ Wavelength:  $\lambda = 980\text{nm}$  (Type)
- ※ Output optical power: 500mW (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)	500	mW
Laser Diode Reverse Voltage	$V_r$	2	V
Operating Temperature	$T_{opr}$	$-10^{\sim}+40$	$^{\circ}\text{C}$
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	$P_o$	-	500	-	mW	CW
Threshold Current	$I_{th}$	-	150	200	mA	CW
Operating Current	$I_{op}$	-	650	750	mA	$P_o=500\text{mW}$
Slope Efficiency	$\eta$	-	0.85	-	mW/mA	$P_o=500\text{mW}$
Operating Voltage	$V_{op}$	-	2	2.3	V	$P_o=500\text{mW}$
Lasing Wavelength	$\lambda$	970	980	990	nm	$P_o=500\text{mW}$
Beam Divergence	//	8	10	14	$^{\circ}$	$P_o=500\text{mW}$
	$\perp$	30	35	40	$^{\circ}$	$P_o=500\text{mW}$
Beam Angle	$\Delta //$	-	-	$\pm 3$	$^{\circ}$	$P_o=500\text{mW}$
	$\Delta \perp$	-	-	$\pm 3$	$^{\circ}$	$P_o=500\text{mW}$
Emission Point Accuracy	$\Delta X, \Delta Y, \Delta Z$	-80	-	+80	$\mu\text{m}$	-

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

