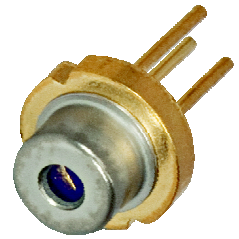


## Mounted Laser Diode

L785P090



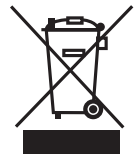
### Description

Thorlabs' mounted Ø5.6 mm, TO-18 can package discreet laser diode is a compact light source suited to many applications. Our lasers are fully compatible with our entire line of Laser Diode and TEC Controllers, as well as our selection of Laser Diode Mounts and Collimation Solutions.

### Specifications

#### Absolute Maximum Ratings ( $T_c = 25\text{ }^\circ\text{C}$ )

Specification	Symbol	Value
Optical Output Power	$P_o$	100 mW
LD Reverse Voltage	$V_r(LD)$	2 V
PD Reverse Voltage	$V_r(PD)$	30 V
Storage Temperature	$T_s$	-40 to 85 °C
Operating Case Temperature	$T_c$	-10 to 70 °C

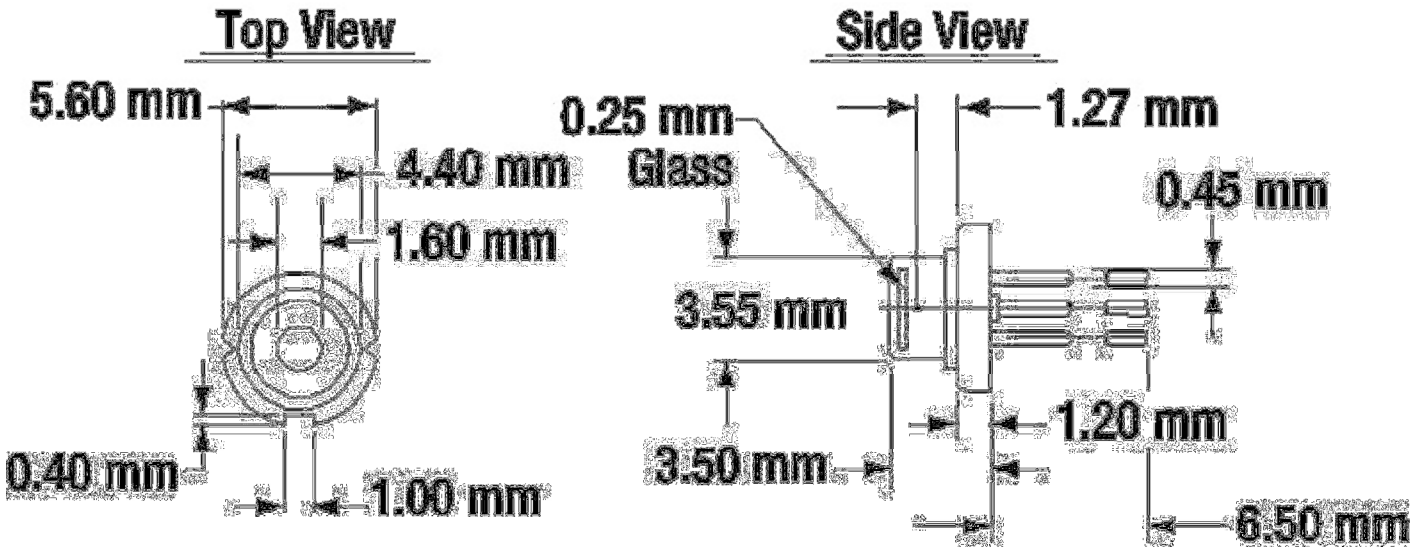


#### Typical and Measured Characteristics ( $T_c = 25\text{ }^\circ\text{C}$ )

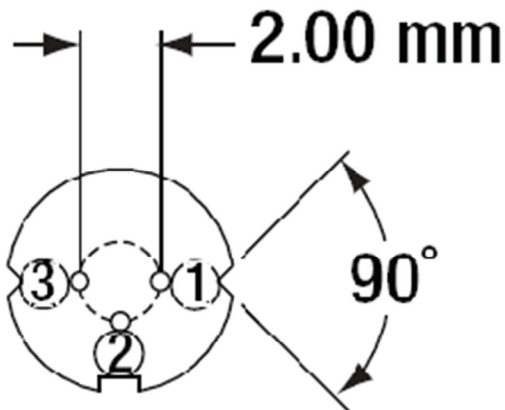
Specification	Symbol	Min	Typical	Max
Lasing Wavelength*	$\lambda_p$	775 nm	785 nm	795 nm
Optical Power	$P_o$	-	90 mW	100 mW
Threshold Current*	$I_{th}$	-	35 mA	60 mA
Operating Current*	$I_{op}$	-	120 mA	160 mA
Operating Voltage*	$V_{op}$	1.5 V	2.0 V	2.3 V
Slope Efficiency*	$\eta$	0.7 W/A	1.1 W/A	1.4 W/A
Astigmatism	$A_s$	-	-	15 $\mu\text{m}$
Monitor Current	$I_m$	0.3 mA	0.5 mA	1.0 mA
Beam Divergence*	$\theta_{//}$	8°	9°	10°
	$\theta_{\perp}$	15°	16°	20°
Beam Angle Deviation*	$\theta_{//}$	-2°	-	2°
	$\theta_{\perp}$	-2°	-	2°
Emission Point Accuracy	$\Delta X$	-80 $\mu\text{m}$	-	80 $\mu\text{m}$
	$\Delta Y$	-80 $\mu\text{m}$	-	80 $\mu\text{m}$
	$\Delta Z$	-80 $\mu\text{m}$	-	80 $\mu\text{m}$

\* $P_o = 90\text{ mW}$

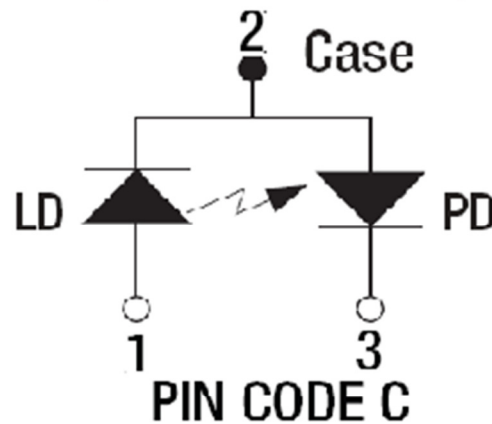
## Drawings



## Bottom View



## Pin Diagram



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