

Laser Diode



L650P007



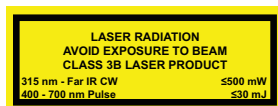
Description

Thorlabs Ø5.6 mm, TO-18 can package discrete 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

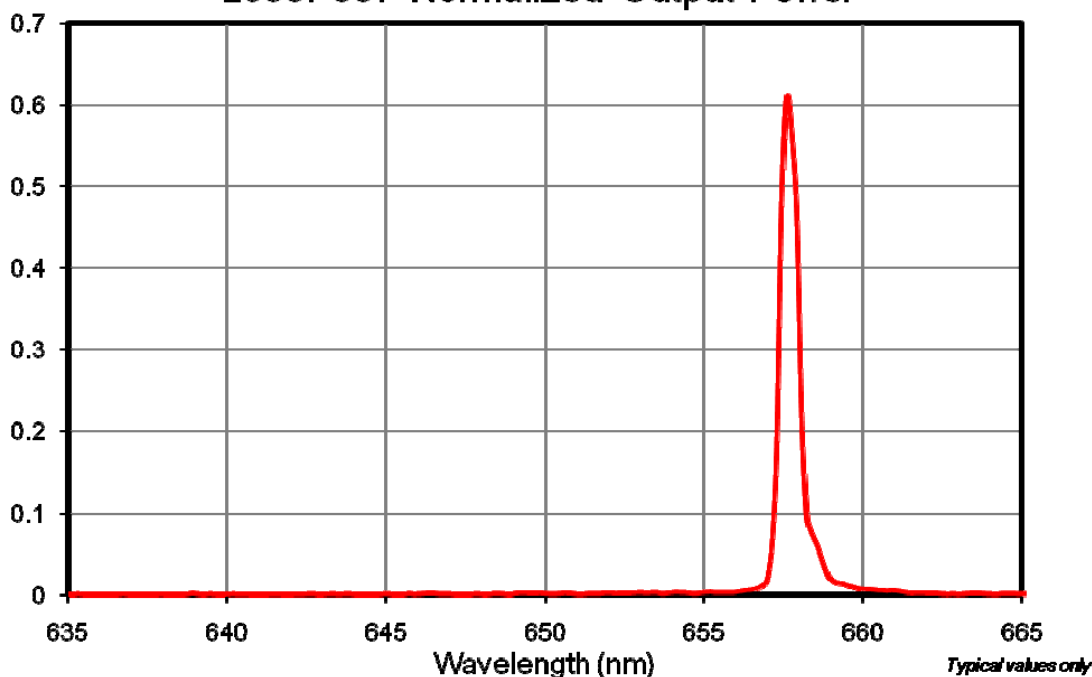
($P_o = 7 \text{ mW}$, $T_c = 25 \text{ }^\circ\text{C}$)

Specification	Symbol	Max
LD Reverse Voltage, V	$V_{R(LD)}$	2
PD Reverse Voltage, V	$V_{R(PD)}$	30
Operation Case Temperature, $^\circ\text{C}$	T_{op}	-10 to 70
Storage Temperature, $^\circ\text{C}$	T_{STG}	-40 to 85



Specification	Symbol	Min	Typ	Max
Wavelength, nm	λ_p	640	650	660
Output Power, mW	P_o	-	7	10
Threshold Current, mA	I_{th}	-	20	25
Operation Current, mA	I_{op}	-	28	35
Operating Voltage, V	V_{op}	-	2.2	2.6
Beam Divergence, deg	$\theta_{//}$	5	9	12
	θ_{\perp}	24	28	32
Slope Efficiency, mW/mA	η	0.6	1	1.3
Monitor Current, mA	I_m	-	0.12	0.3
Astigmatism, μm	A_s	-	-	15
Beam Angle Deviation, deg	$\theta_{//}$	-3	-	3
	θ_{\perp}	-3	-	3
Emission Point Accuracy, μm	ΔX	-80		80
	ΔY	-80		80
	ΔZ	-80		80

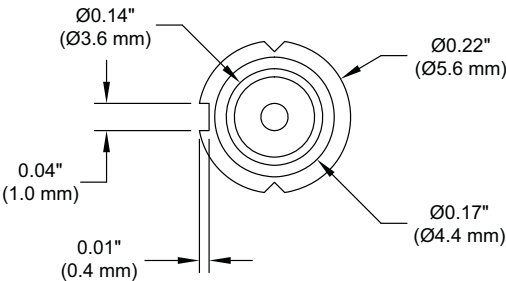
L650P007 Normalized Output Power



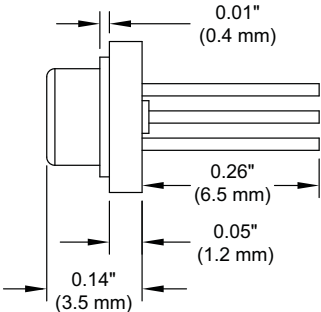
Drawings



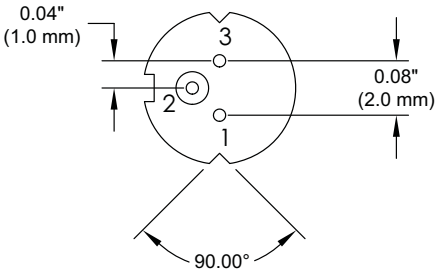
Top View



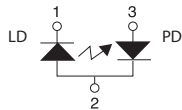
Side View



Bottom View



Pin Code 5A



Pin Description

- 1 Laser Cathode
- 2 Case Common
- 3 Monitor Diode Anode

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