

Laser Diode



L658P040



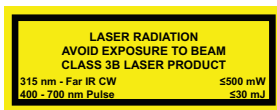
Description

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.

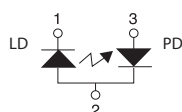
Specifications

($P_o = 40 \text{ mW}$, $T_c = 25^\circ\text{C}$)

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



Pin Code 5A



Pin Description

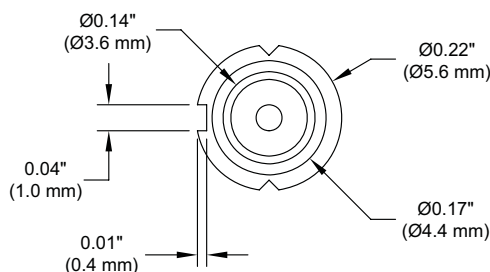
- 1 Laser Cathode
- 2 Case Common
- 3 Monitor Diode Anode

Specification	Symbol	Min	Typ	Max
Wavelength, nm	λ_p	648	658	668
Output Power, mW	P_o	-	40	42
Threshold Current, mA	I_{th}	-	35	55
Operation Current, mA	I_{op}	-	75	110
Operating Voltage, V	V_{op}	-	2.2	2.8
Beam Divergence, deg	$\theta_{//}$	5	10	12
	$\theta_{\perp}$	16	20	22
Slope Efficiency, mW/mA	η	0.5	0.8	1.2
Monitor Current, mA	I_m	-	0.3	0.5
Astigmatism, μm	A_s	-	-	15
Beam Angle Deviation, deg	$\theta_{//}$	-3	-	3
	$\theta_{\perp}$	-3	-	3
Emission Point Accuracy, μm	ΔX	-80	-	80
	ΔY	-80	-	80
	ΔZ	-80	-	80

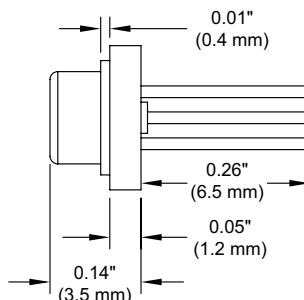
Drawings



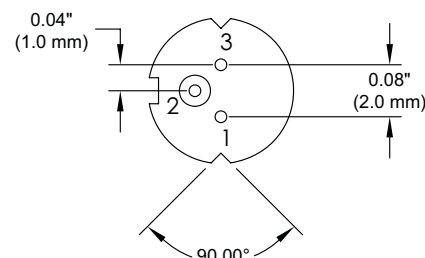
Top View



Side View



Bottom View



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