639 nm Laser Diode, 10 mW

HL6358MG

Description

This 639 nm, 10 mW TO packaged laser diode is a compact light source that outputs a single transverse mode and is suited for a variety of applications such as a laser level, laser scanner, or a light source for optical equipment. It is packaged in a standard Ø5.6 mm TO can package and has an A pin configuration. This laser diode is compatible with our line of laser diode and TEC controllers as well as our selection of collimation solutions and TO can laser diode mounts.

Specifications

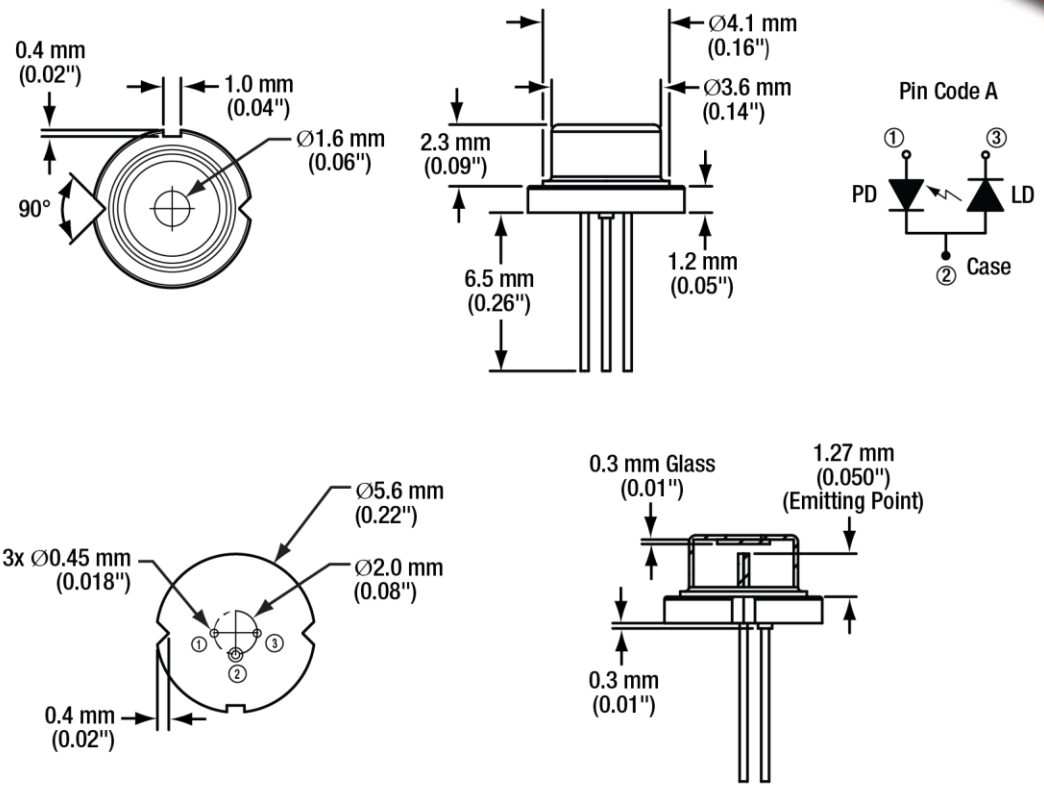
Absolute Maximum Ratings[a]	
Specification	**Maximum**
Optical Output Power, CW	12 mW
LD Reverse Voltage	2 V
PD Reverse Voltage	30 V
Operating Temperature	-10 °C to 50 °C
Storage Temperature	-40 °C to 85 °C

a. Absolute Maximum Rating specifications should never be exceeded. Operating at or beyond these conditions can permanently damage the laser.

HL6358MG Specifications[a]					
		Symbol	**Min**	**Typical**	**Max**
Center Wavelength @ P_{op}		λ_o	630 nm	639 nm	643 nm
Optical Output Power, CW		P_{op}	-	10 mW	-
Threshold Current		I_{TH}	-	25 mA	35 mA
Operating Current, CW @ P_{op}		I_{op}	-	40 mA	50 mA
Operating Voltage @ P_{op}		V_{op}	-	2.4 V	3.0 V
Slope Efficiency		η	-	0.8 mW/mA	-
Beam Divergence (FWHM) @ P_{op}	**Parallel**	$\theta_{//}$	6°	8°	11°
	Perpendicular	$\theta_{\perp}$	16°	21°	24°
Monitor Current @ P_{op}		I_{PD}	0.5 mA	1.2 mA	2.0 mA

a. T_{CASE} = 25 °C if not specified.

Drawing


0.4 mm
(0.02")
1.0 mm
(0.04")
Ø1.6 mm
(0.06")
90°
Ø4.1 mm
(0.16")
Ø3.6 mm
(0.14")
2.3 mm
(0.09")
6.5 mm
(0.26")
1.2 mm
(0.05")
Pin Code A
①
③
PD
LD
②
Case
Ø5.6 mm
(0.22")
3x Ø0.45 mm
(0.018")
Ø2.0 mm
(0.08")
0.4 mm
(0.02")
0.3 mm Glass
(0.01")
1.27 mm
(0.050")
(Emitting Point)
0.3 mm
(0.01")