642 nm Laser Diode, 150 mW

HL6385DG

Description

This 642 nm, 150 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 display, laser module, and a light source for optical equipment. It is packaged in a standard Ø5.6 mm TO can package and has an H 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

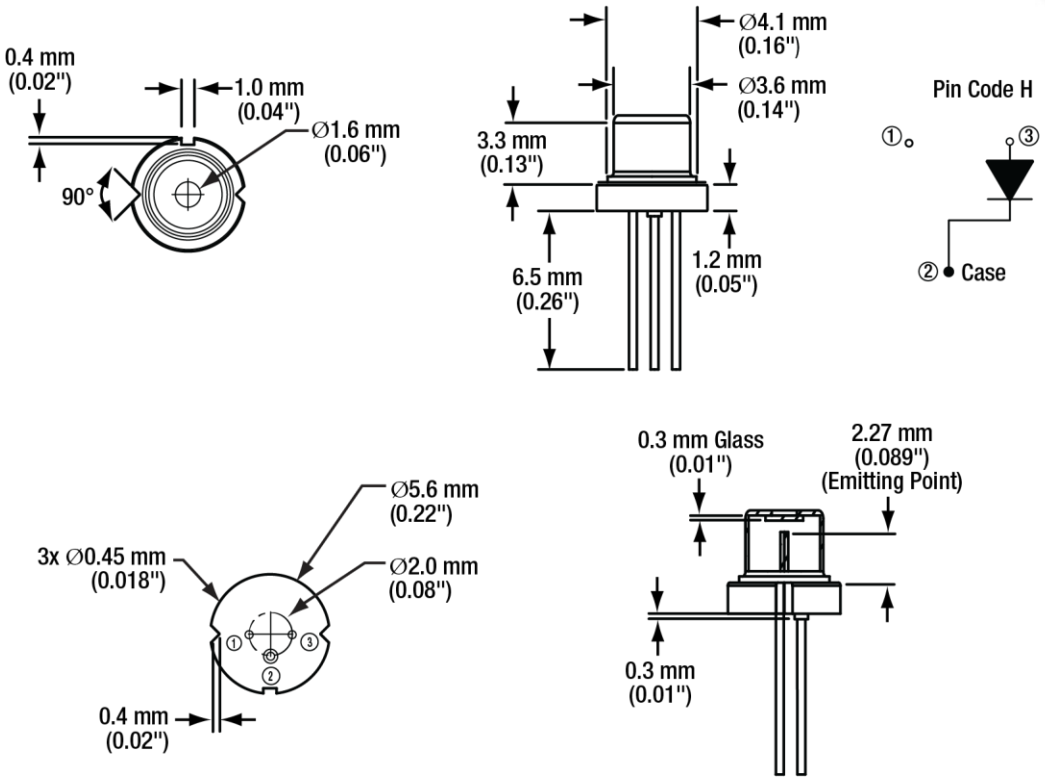
Absolute Maximum Ratings[a]	
Specification	**Maximum**
Optical Output Power, CW	150 mW
LD Reverse Voltage	2 V
Operating Temperature	-10 °C to 40 °C
Storage Temperature	-40 °C to 85 °C

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

HL6385DG Specifications[a]					
		Symbol	**Min**	**Typical**	**Max**
Center Wavelength @ P_{op}[b]		λ_o	635 nm	642 nm	647 nm
Threshold Current		I_{TH}	-	120 mA	140 mA
Operating Current, CW @ P_{op}[b]		I_{op}	-	250 mA	350 mA
Operating Voltage @ P_{op}[b]		V_{op}	-	2.6 V	3.0 V
Beam Divergence (FWHM) @ P_{op}[b]	**Parallel**	$\theta_{//}$	6°	9°	13°
	Perpendicular	$\theta_{\perp}$	13°	17°	22°

a. T_{CASE} = 25 °C if not specified.
b. P_{op} = 150 mW

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")
3.3 mm
(0.13")
6.5 mm
(0.26")
1.2 mm
(0.05")
Pin Code H
①
③
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")
2.27 mm
(0.089")
(Emitting Point)
0.3 mm
(0.01")