730 nm Laser Diode, 40 mW

HL7302MG

Description

This 730 nm, 40 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 module, medical, test and measurement, or sensing. 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

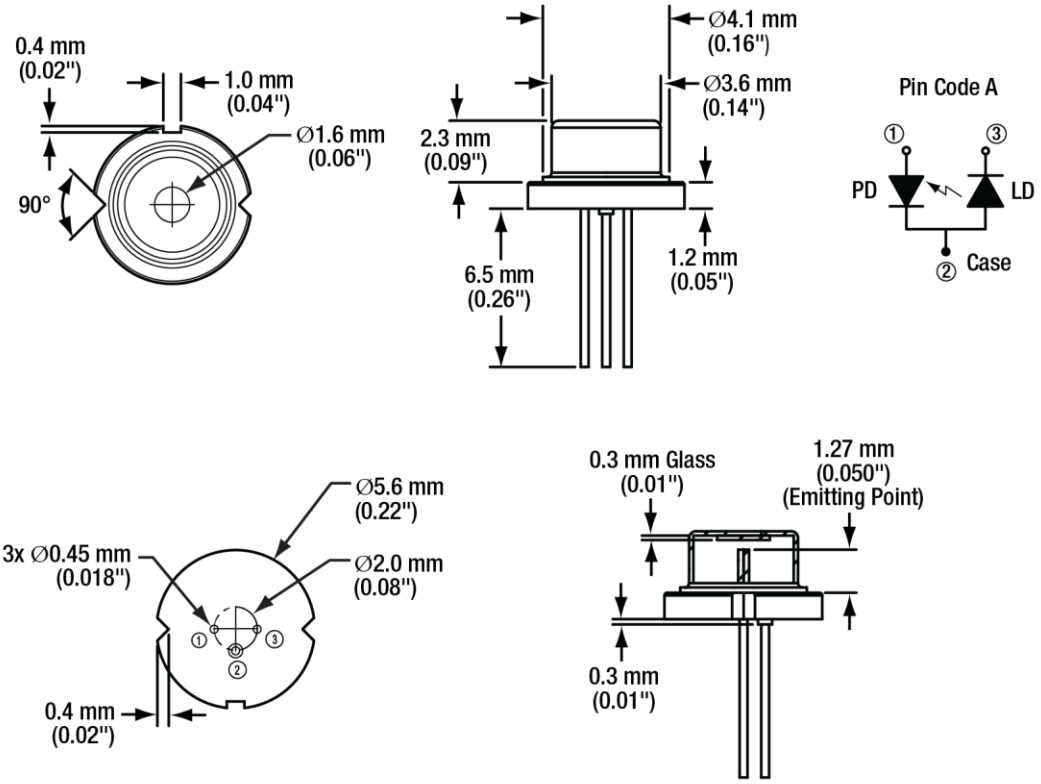
Absolute Maximum Ratings[a]	
Specification	**Maximum**
Optical Output Power, CW	50 mW
LD Reverse Voltage	2 V
PD Reverse Voltage	30 V
Operating Temperature	-10 °C to 60 °C
Storage Temperature	-40 °C to 85 °C

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

HL7302MG Specifications[a]					
		Symbol	**Min**	**Typical**	**Max**
Center Wavelength @ P_{op}[b]		λ_o	720 nm	730 nm	740 nm
Optical Output Power, CW		P_{op}	-	40 mW	50 mW
Threshold Current		I_{TH}	-	30 mA	60 mA
Operating Current, CW @ P_{op}[b]		I_{op}	-	75 mA	100 mA
Operating Voltage @ P_{op}[b]		V_{op}	-	2.5 V	-
Slope Efficiency		η	0.7 mW/mA	0.9 mW/mA	1.4 mW/mA
Beam Divergence (FWHM) @ P_{op}[b]	**Parallel**	$\theta_{//}$	7°	9°	14°
	Perpendicular	$\theta_{\perp}$	14°	18°	25°
Monitor Current @ P_{op}[b]		I_{PD}	0.15 mA	0.3 mA	0.6 mA

a. T_{CASE} = 25 °C if not specified.
b. P_{op} = 40 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")
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")