

HL7001MG



Description

This 705 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 a C 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.

HL7001MG Specifications ^a				
	Symbol	Min	Typical	Max
Center Wavelength @ P _{op} ^b	λ _o	695 nm	705 nm	715 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	θ _{//}	7°	9°
	Perpendicular	θ _⊥	14°	18°
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

