

Green Dot Laser Module

Wide Temperature Range

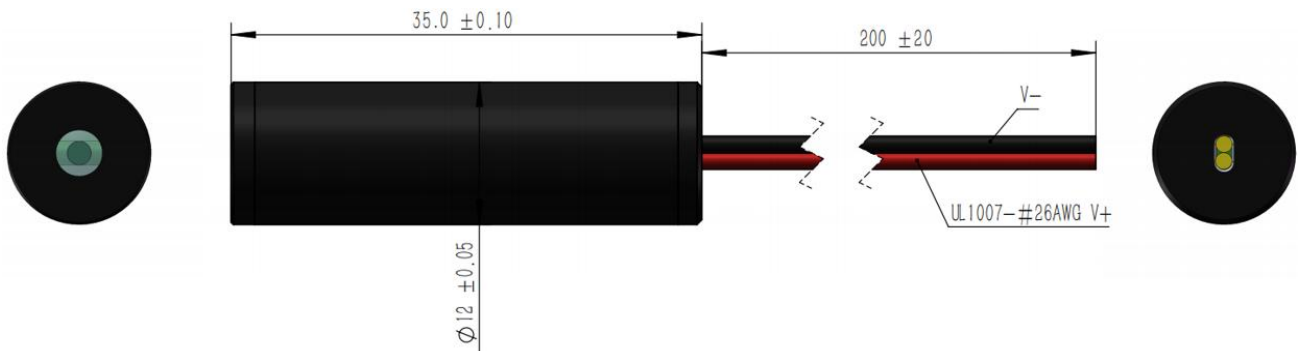


G545D020-12x35-1.0-(-30-50)-10

Features

- Fast Rise Time
- High Reliability
- Isolated Housing
- Wide Temperature Range

Dimensions (Unit: mm)



Specifications				
Model Number		G545D020-12x35-1.0-(-30-50)-10		
Mechanical Specifications		Min	Typ	Max
Laser Head	Diameter (mm)	11.95	12 ⁽¹⁾	12.05
	Length (mm)	34.9	35 ⁽¹⁾	35.1
	Weight (g)	-	13	-
Housing Material		Black Anodized Aluminum		
Optical Specifications		Min	Typ	Max
Wavelength (nm) ⁽²⁾		544	545	546
Output Power (mW)		15	20	25
Power Stability at const. Temperature ⁽³⁾		-	+/- 2%	+/- 5%
Output Power Mode		CW		
Laser Class		3B		

⁽¹⁾ Other Dimensions available on demand

⁽²⁾ over Operating Case Temperature Range

⁽³⁾ after max. 3 minutes

Beam Specifications		Min	Typ	Max
Beam Divergence (mrad) ⁽¹⁾		-	0.8	1.0
Beam Alignment Tolerance	Position (Δr , mm) ⁽²⁾	-	0.3	0.5
	Off-axis Angle (mrad) ⁽³⁾	-	20	30
Beam Diameter at Output Window (mm) ⁽⁴⁾		-	-	2.5
Beam Roundness		70%	-	100%
Beam Mode Longitude		Multi		
Beam Mode Transverse		near TEM ₀₀		
M ²		-	1.2	1.4
Polarization Ratio		100:1	-	-
Electrical Specifications		Min	Typ	Max
PCB Type		APC		
Voltage (DC, V)		3.0	3	5.2
Operating Current (mA) at 3V ⁽⁵⁾		-	300	400
Housing Isolation		Yes		
ESD protection		No		
Wire Length (mm)		200 +/- 20		
Wire Type ⁽⁶⁾		UL1007 26AWG		
Connector Model ⁽⁷⁾		None		
Reverse Voltage Protection		Yes		
Reliability		Min	Typ	Max
Operating Case Temperature Range (°C) ⁽⁸⁾		-30	-	50
Rise Time (Seconds) ⁽⁹⁾		-	0.05	0.2
Storage Temperature (°C)		-40	-	60
Environmental Humidity (RH, %)		5	-	85
Lifetime (hours) (MTTF at 25°C)		5,000	-	-
RoHS Compliance Declaration		Yes		

(1) Full Angle ($1/e^2$)

(2) at Output Window

(3) Full Angle

(4) Optional: Focused Beam on demand

(5) over Operating Case Temperature

(6) Optional: Alternative Wire Types on demand

(7) Optional: Alternative connector Models on demand

(8) A = 15-35 °C, B = 10-50 °C, C = 0-40 °C, D = -10-50 °C, E = -30-50°C

(9) to 75% of full Output Power