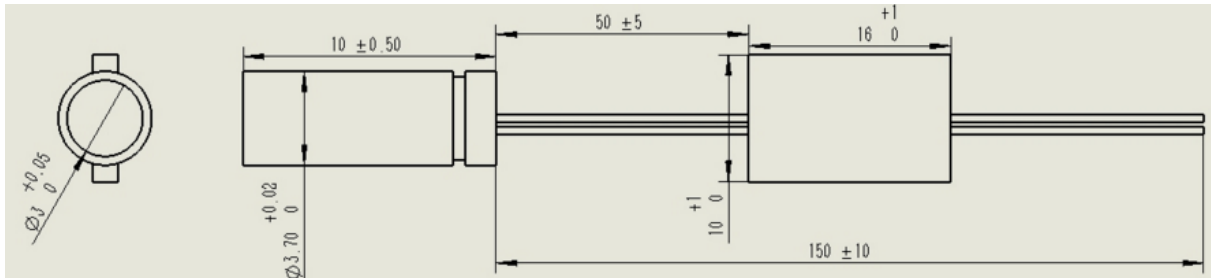


GLM-545-003-MICRO-X MICRO Green Laser Module

Features

- Small Size: Ø3.7mm x 10mm
- Wide Temperature Range
- Fast Rise Time
- Reverse Voltage Protection
- High Reliability



Specifications				
Mechanical Specifications		Min	Typ	Max
Laser Head	Diameter (mm)	3.70	3.71	3.72
	Length (mm)	9.5	10.0	10.5
	Weight (g)	-	3.0	-
PCB / Driver	Width (mm)	10	-	11
	Length (mm)	16	-	17
Housing Material		Stainless Steel		
Optical Specifications		Min	Typ	Max
Wavelength (nm)		543	545	547
Output Power (mW)		0.5	3.0	4.9
Power Stability at 25°C (after max. 3min.)		-	+/- 2%	+/- 5%
Power Stability over Temperature Range		-	+/- 5%	+/- 10%
Output Power Mode		PWM/TTL		
Laser Class		3R		

Beam Specifications		Min	Typ	Max
Beam Divergence (mrad) ⁽¹⁾		-	2.0	2.5
Beam Size at 10m (mm)		-	20	25
Beam Alignment Tolerance	Position (Δr , mm) ⁽²⁾	-	0.3	0.5
	Off-axis Angle (mrad) ⁽³⁾	-	60	100
Beam Diameter at Output Window (mm)		-	2.5	-
Beam Roundness		40%	-	100%
Longitudinal Mode		Multimode		
Transversal Mode		TEM ₀₀		
Polarization Ratio		100:1	-	-
M ²		-	1.5	-
Residual IR (%)		-	-	4%
Electrical Specifications		Min	Typ	Max
PCB Type		ACC-TTL-10%-50%		
Frequency (fixed)		111Hz		
Voltage (DC, V)		2.7	3.0	4.2
Operating Current (mA) at 3V		-	-	200
Housing Isolation		No		
ESD Protection		No		
Wire Length (mm) (Laser to PCB)		50 (± 5)		
Wire Length (mm) (behind PCB)		80 (± 10)		
Wire Type		1571-24AWG		
Reverse Voltage Protection		Yes (Brown: V+, White V-)		
Reliability		Min	Typ	Max
Operating Case Temperature Range A (°C)		0	25	40
Operating Case Temperature Range B (°C)		-10	25	50
Operating Case Temperature Range C (°C)		-30	25	50
Operating Case Temperature Range D (°C)		-30	25	60
Rise Time (Seconds)		-	0.2	0.5
Storage Temperature (°C)		-30	-	60
Environmental Humidity (RH, %)		5	-	85
Lifetime (hours) (MTTF at 25°C)		5,000	-	-
RoHS Compliance Declaration		Yes		

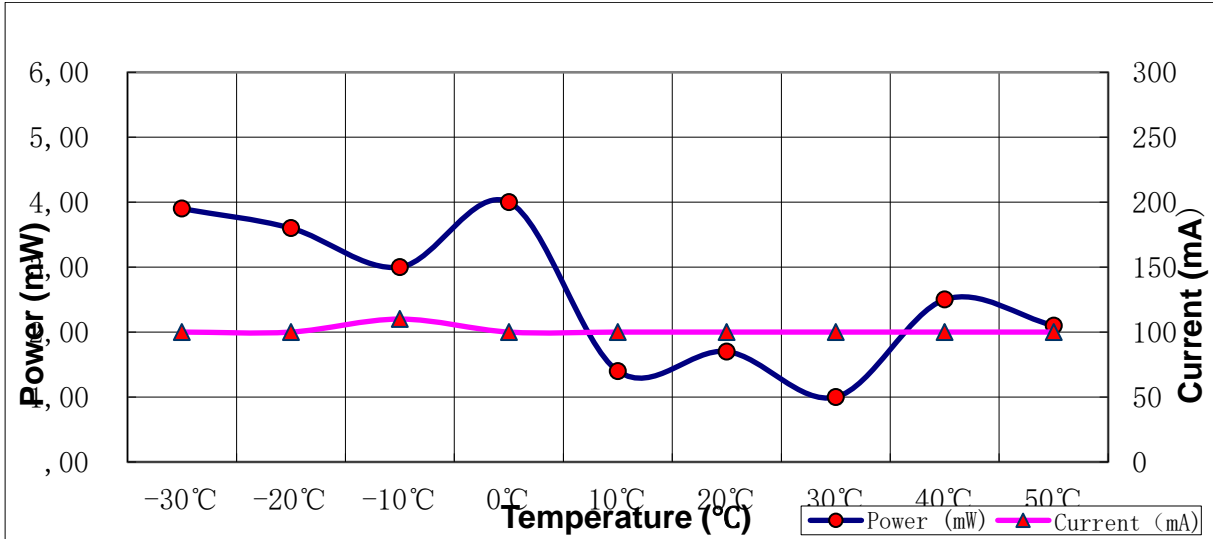
⁽¹⁾ Full angle ($1/e^2$)

⁽²⁾ At output window

⁽³⁾ Full angle

Typical Performance

1. Power / Current vs. Case Temperature



2. Power vs. Time (at 25°C Case Temperature)

