

Green Laser Module Analog Modulation

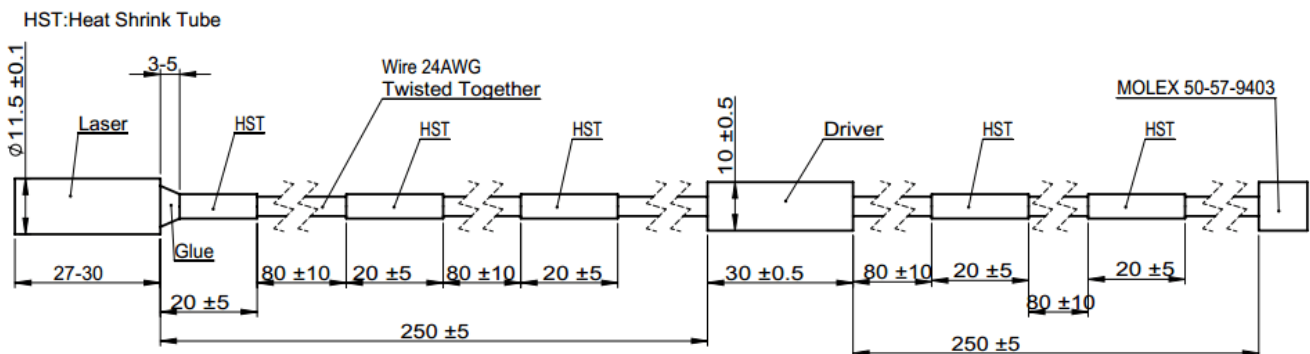


G532D005-1230-1.5-(15-35)-Z

Features

- Focusable
- Fast Rise Time
- High Reliability
- Reverse Voltage Protection
- Modulation and CW options

Dimensions (Unit: mm)



Specifications				
Model Number		G532D005-1230-1.5-(15-35)-Z		
Mechanical Specifications		Min	Typ	Max
Laser Head	Diameter (mm)	11.4	11.5	11.6
	Length (mm)	27	-	30
	Weight (g)	-	-	18
PCB / Driver	Width (mm)	9.5	10	10.5
	Length (mm)	29.5	30	30.5
Housing Material		Black Anodized Aluminum		
Optical Specifications		Min	Typ	Max
Wavelength (nm)		530	532	534
Modulation Output Power (mW)		0	-	4.9
Output Power Mode		Voltage		
Max. Power Stability ⁽¹⁾ at 5V		3.5	-	4.9
Min. Power Stability ⁽¹⁾ at 0V		0	-	0.2
Laser Class		3R		

⁽¹⁾ over Operating Temperature Range

Beam Specifications	Min	Typ	Max
Beam Divergence at Focus Position (mrad)	-	-	1.5
Beam Alignment Tolerance Position (Δr , mm) ⁽¹⁾	-	0.3	0.5
Beam Alignment Tolerance Angle (mrad) ⁽²⁾	-	30	40
Beam Diameter at Output Window (mm) ⁽³⁾	-	-	1.0
Beam Roundness	70%	-	100%
Beam Mode Longitude	Multi		
Beam Mode Transverse	TEM00		
Residual IR (%)	-	-	4%
Polarization Ratio	100:1	-	-
Electrical Specifications	Min	Typ	Max
PCB Type	APC, Analog Modulation 0-5V		
Voltage (DC, V)	4.0	5.0	15.0
Operating Current (mA) at 5V	-	-	300
Housing Isolation	Yes		
Modulation Voltage (DC, V) ⁽⁴⁾	0	-	5.0
ESD Protection	No		
Wire Length (mm)	See Drawing on page 1		
Wire Type	24AWG		
Connector Model	MOLEX 50-57-9403		
Reverse Voltage Protection	Yes (Red: V+, Black: V-)		
Reliability	Min	Typ	Max
Operating Case Temperature Range (°C)	15	25	35
Rise Time (Seconds)	-	0.2	0.5
Storage Temperature (°C)	0	-	50
Environmental Humidity (RH, %)	5	-	85
Lifetime (hours) (MTTF at 25°C)	5000	-	-
RoHS Compliance Declaration	Yes		

- (1) at Output Window
(2) Full Angle
(3) at Minimum Divergence
(4) Control via Blue Wire

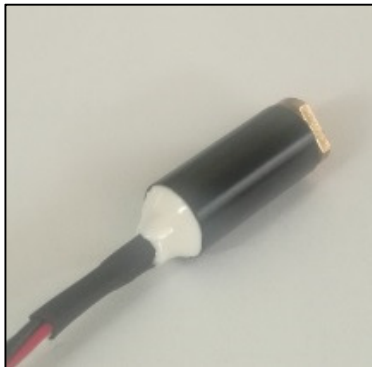
Remarks

- Datasheet Version 1
- Model Number for placing orders: G532D005-11.5x30-1.5-(15-35)-Z
- Reverse Voltage Protection 4.5-30V
- Customer is responsible for suitable heat sinking
- Output power always < 5mW
- All wires (Laser to PCB and PCB to Connector) are 24AWG
- One heat shrink around PCB (see picture 5):
 - Length: 50mm (+/-5mm); Width: Max. 15mm
- Laser Beam Warning Label on module housing (see picture 1):
- Glue in cone-like shape at the back of module housing (see picture 2 & drawing on page 1)
- Label around heat shrink between Laser and PCB (see picture 4):
 - Lasence Material Code
 - Lasence Order Number - Module Number
 - Label length: 30mm (+/-3mm)
- Label on plastic bag (see picture of another product's label in picture 3):
 - LASENCE®
 - G532D005-1230-1.5-(15-35)-Z
 - Lasence Order Number - Module Number
 - Label Length: 30mm (+/-3mm); Width: 25mm (+/-3mm)
- **Optional:**
- Shock
 - 1000g, 1ms, 6 shocks (3 axes, 2 shocks/axis)
- Vibration
 - 20 ~ 200Hz, 0.02g²/Hz (3 axes, 1h/axis)

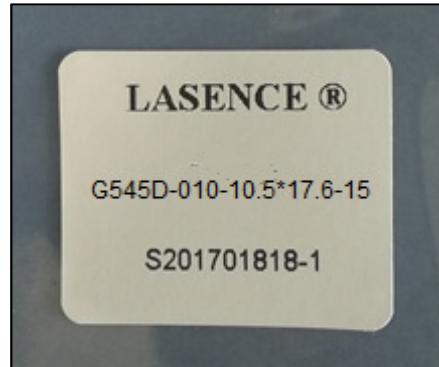
Picture 1



Picture 2



Picture 3



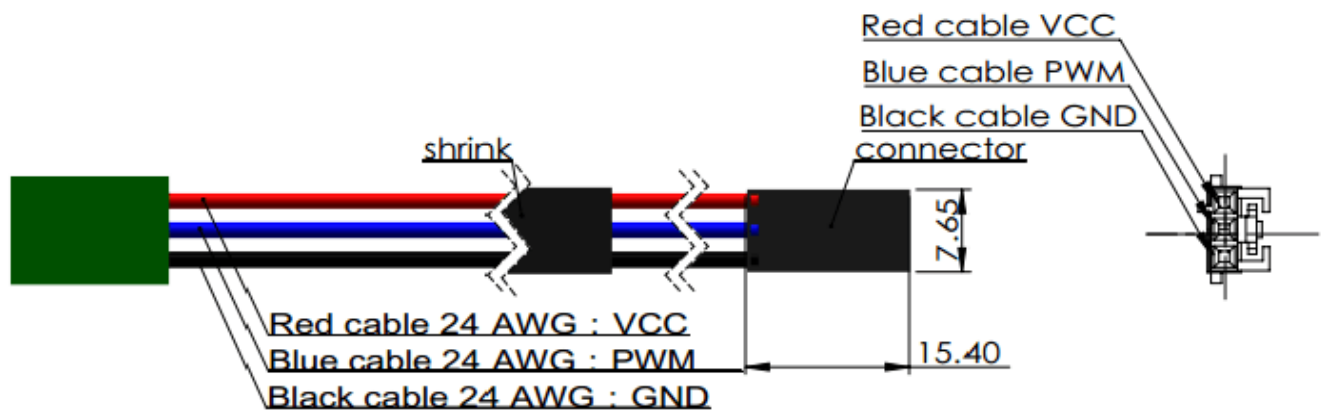
Picture 4



Picture 5

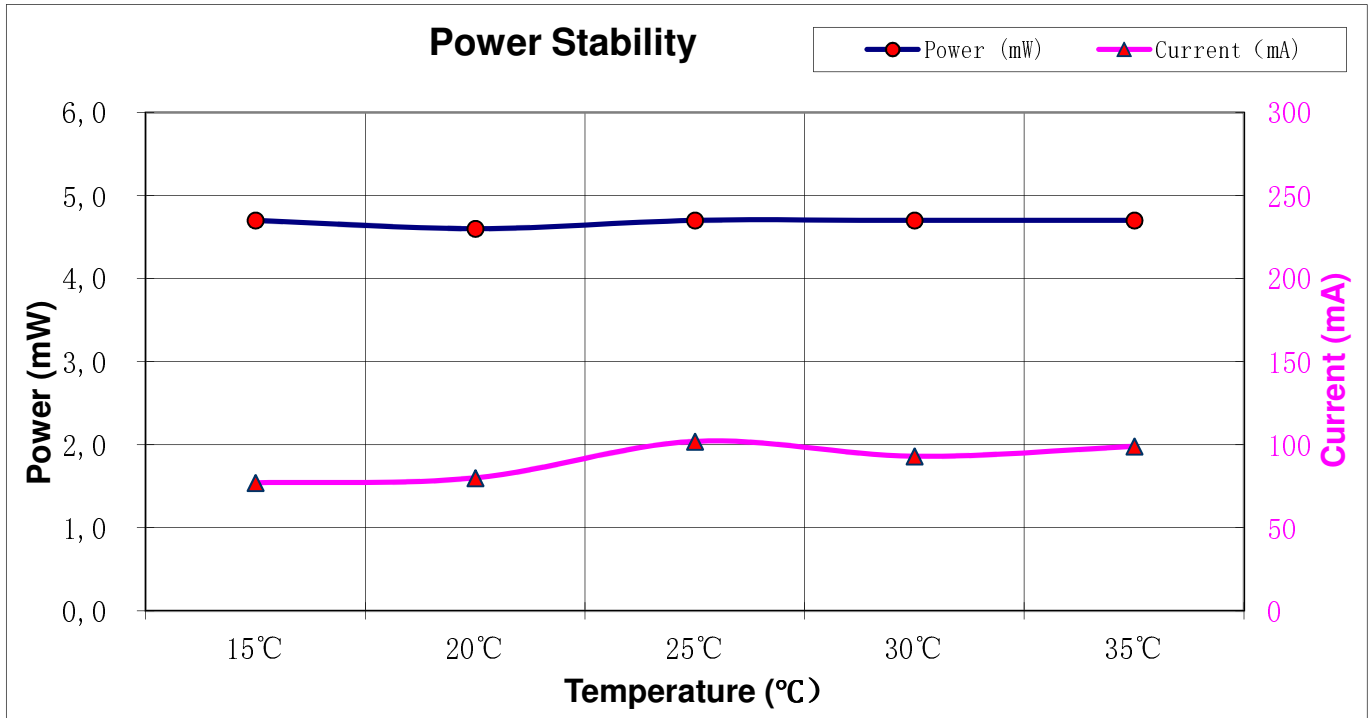


Molex Connector & Wires



Typical Output Performance (examples)

1.) Power / Current vs. Case Temperature



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

