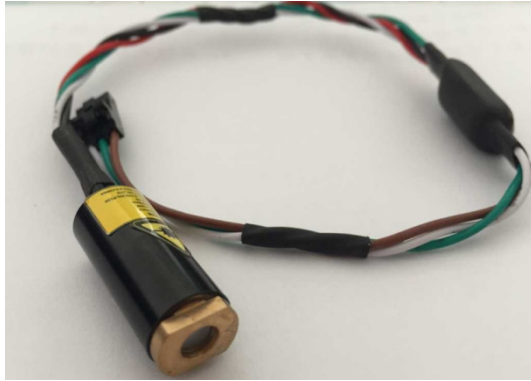


Green Laser Module

TTL/PWM Modulation

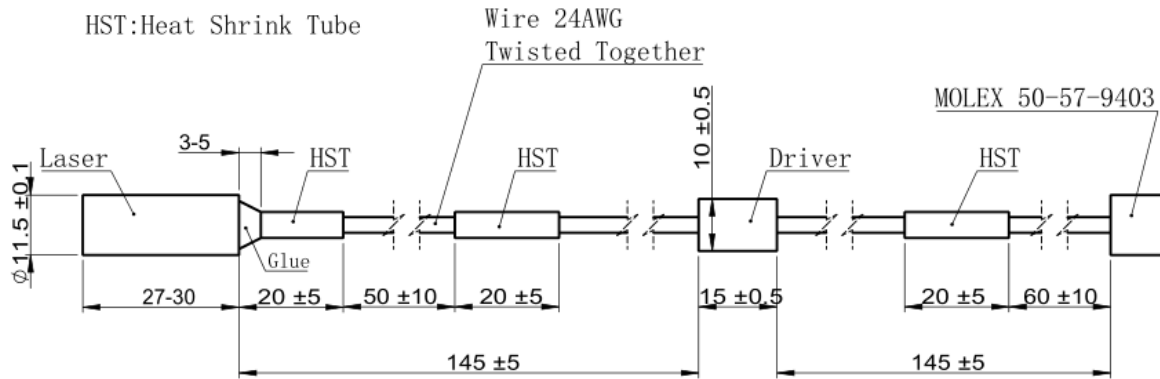


G532D005-11.5x30-1.5-(15-35)-T

Features

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

Dimensions (Unit: mm)



Specifications

Model Number		G532D005-11.5x30-1.5-(15-35)-T		
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)	14.5	15	15.5
Housing Material		Black Anodized Aluminum		
Optical Specifications		Min	Typ	Max
Wavelength (nm)		530	532	534
Output Power (mW)		-	-	< 5.0
Power Stability	at 25 °C & 0% Duty-cycle	4.6	-	4.9
	over Temperature Range	3.3	-	4.9
Output Power Mode		PWM		
Laser Class		3R		

Beam Specifications		Min	Typ	Max
Beam Divergence at Focus Position (mrad)		-	-	1.5
Beam Alignment Tolerance	Position (Δr , mm) ⁽¹⁾	-	0.3	0.5
	Off-axis 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		Near TEM00		
Residual IR (%)		-	-	4%
Polarization Ratio		100:1	-	-
Electrical Specifications		Min	Typ	Max
PCB Type		APC, TTL/PWM 0%-100%		
Voltage (DC, V)		4.5	5.0	30.0
Operating Current (mA) at 5V		-	-	300
Housing Isolation		Yes		
Modulation Voltage (DC, V)		4.9	5.0	5.1
Modulation Frequency (KHz)		3.0 (Green Wire)		
ESD protection		No		
Wire Length (mm)		See Drawing on page 1		
Wire Type		24AWG		
Connector Model		MOLEX 50-57-9403		
Reverse Voltage Protection		Yes (Brown: V+, White: V-)		
Reliability		Min	Typ	Max
Operating Case Temperature Range (°C)		15	25	35
Rise Time (Seconds)		-	0.2	0.5
Storage Temperature (°C)		-20	-	60
Environmental Humidity (RH, %)		5	-	85
Lifetime (hours) (MTTF at 25°C)		5,000	-	-
RoHS Compliance Declaration		Yes		

(1) at Output Window

(2) Full Angle

(3) at Minimum Divergence

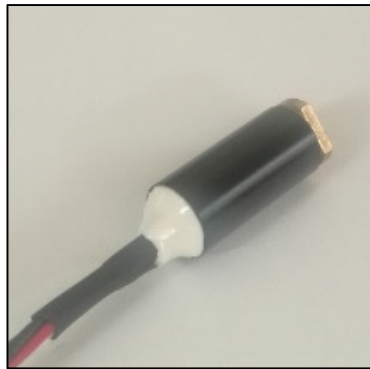
Remarks

- Version 1
- Model Number for placing orders: G532D005-11.5x30-1.5-(15-35)-T
- Reverse Voltage Protection 4.5-30V
- Customer is responsible for suitable heat sinking
- Output power always < 5mW
- TTL modulation
 - 0% duty-cycle = 4.6-4.9mW at 25°C case temperature
 - 100% duty-cycle = laser turned off, no beam spot, 0 power
- All wires (Laser to PCB and PCB to Connector) are 24AWG
- One heat shrink each between Laser to PCB and PCB to Connector
 - for exact location, length and tolerances see drawing on page 1
- One heat shrink at backside of housing
 - for exact location, length and tolerances see drawing on page 1
- One heat shrink around PCB (see picture 5):
 - Length: 30mm (+/-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):
 - Length of glue: 3-5mm
- 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®
 - G532D005-11.5x30-1.5-(15-35)-T
 - 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)

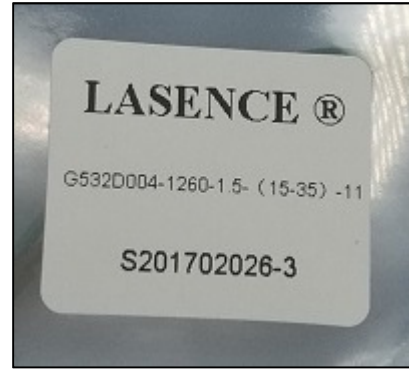
Picture 1



Picture 2



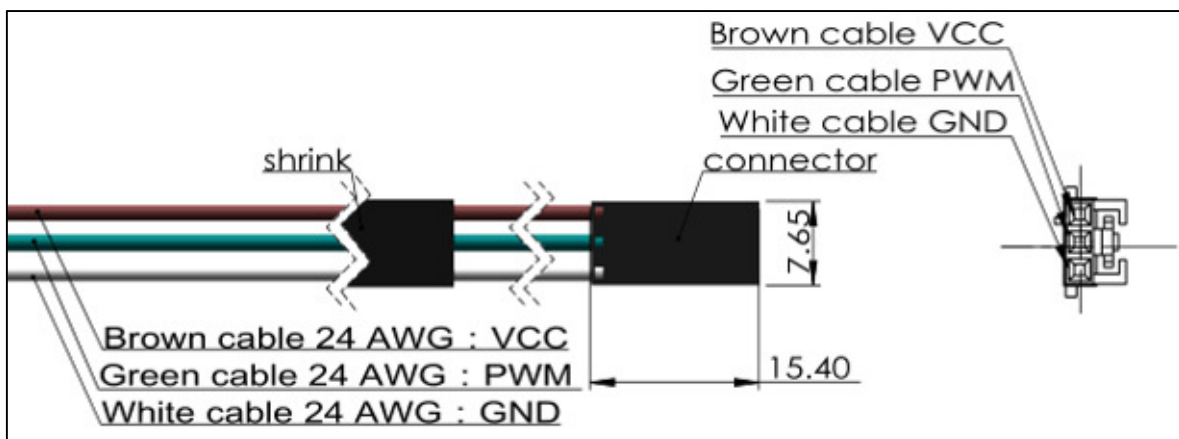
Picture 3



Picture 4

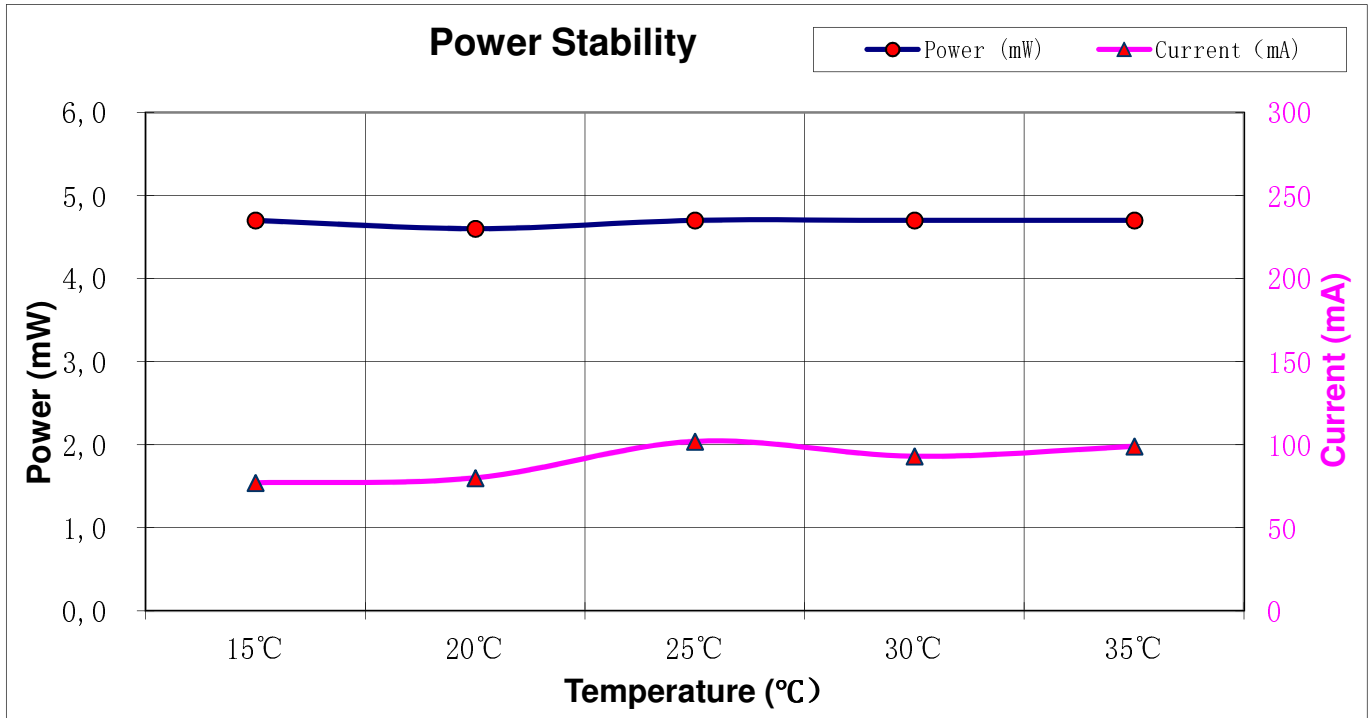


Picture 5

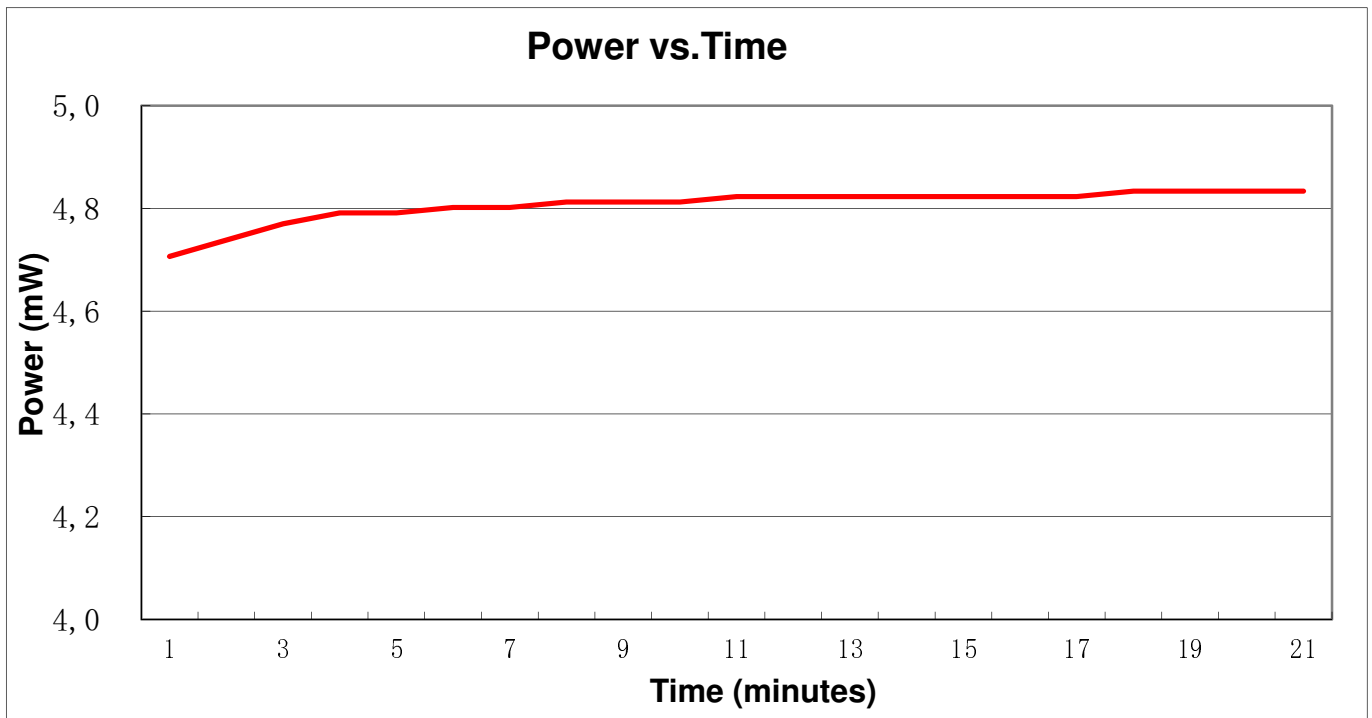


Typical Output Performance (examples)

1.) Power / Current vs. Case Temperature



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



Typical Output Performance (examples)

3.) Power vs. Duty Cycle (at 25°C Case Temperature)

