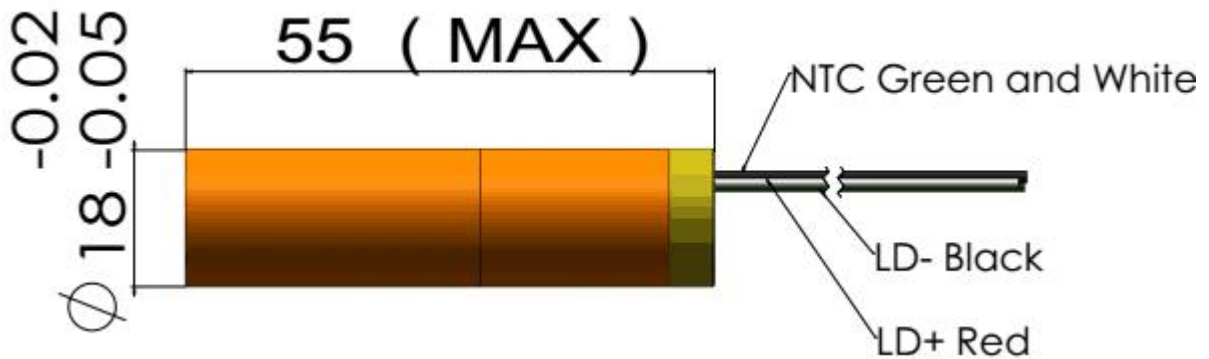


Y577D500-18x55-40

- Features**
- DPSS Laser
 - Yellow Laser
 - Fast Rise Time
 - High Reliability
 - with NTC

Dimensions (Unit: mm)



| Specifications | | | | |
|--|---------------|-------------------------|------------|------------|
| Model Number | | Y577D500-18x55-40 | | |
| Mechanical Specifications | | <i>Min</i> | <i>Typ</i> | <i>Max</i> |
| Laser Head | Diameter (mm) | 17.95 | - | 17.98 |
| | Length (mm) | - | - | 55 |
| | Weight (g) | - | - | 200 |
| Housing Material | | Brass with gold-plating | | |
| Optical Specifications | | <i>Min</i> | <i>Typ</i> | <i>Max</i> |
| Wavelength (nm) | | 575 | 577 | 579 |
| Output Power (mW) at T ⁽¹⁾ at 10A | | 500 | - | - |
| Power Stability at const. Temperature ⁽²⁾ | | - | +/- 5% | +/- 10% |
| Output Power Mode | | CW | | |
| Laser Class | | 3B | | |

(1) see remark in page 2 no# 4
 (2) after max. 3 minutes

| Beam Specifications | | Min | Typ | Max |
|--|-----------------------|--|------------------|------------|
| Beam Divergence (mrad) ⁽¹⁾ | | - | 40 | 50 |
| Beam Waist (μm) | | - | 300 | - |
| Beam Alignment Tolerance | Position (Δr, mm) | - | - | 0.5 |
| | Off-axis Angle (mrad) | - | 35 | 60 |
| Beam Diameter at Output Window (mm) | | - | 0.5 | |
| Beam Roundness | | - | - | - |
| Beam Mode Longitude | | Multi | | |
| Beam Mode Transverse | | TEM _n ⁽²⁾ | | |
| Polarization Ratio (Linear) | | 100:1 | - | - |
| Residual IR | | - | - | 3% |
| Electrical Specifications | | Min | Typ | Max |
| Power Type | | ACC | | |
| LD Voltage (DC, V) | | 1.8 | 2 | 2.3 |
| LD Operating Current (mA) at 2V | | - | 8,000 | 10,000 |
| Thermistor Constants | | A = 2.231e ⁻³ B = 4.694e ⁻⁵ C = 0.884e ⁻⁶ | | |
| Thermistor Resistance | | 6.6KΩ@35°C 8.2KΩ@30°C 10.0KΩ@25°C 12.3KΩ@20°C 16.4KΩ@15°C 18.5KΩ@10°C | | |
| Power Consumption (W) | | - | 12 | 18.4 |
| Housing Isolation | | No | | |
| ESD protection | | No | | |
| Wire Length (mm) ⁽³⁾ | | 200 (+/-50) | | |
| Wire Type ⁽³⁾ | | 20AWG / 28AWG | | |
| Reliability | | Min | Typ | Max |
| Operating NTC Temperature Range (°C) | | T-0.3 | T ⁽⁴⁾ | T+0.3 |
| Warm-up Time (minutes) at 10A ⁽⁵⁾ | | - | 3 | 5 |
| Storage Temperature (°C) | | 0 | - | 40 |
| Environmental Humidity (RH, %) | | 5 | - | 85 |
| Lifetime (hours) (MTTF at T ⁽⁴⁾) | | 5,000 | - | - |
| RoHS Compliance Declaration | | Yes | | |

(1) Full Angle (1/e²)

(2) See picture 5 on page 3 for example of beam spot

(3) Wire Length can be customized. 20AWG for LD wires. 28AWG for NTC wires.

(4) T is one optimum LD operating temperature between 15 to 35°C reflected by NTC resistance and will be advised in each test report.

(5) Dot (~10mW) can be seen after 0.2s if >1A

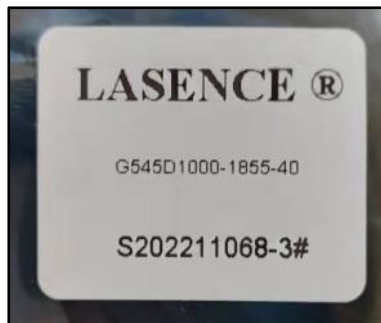
Remarks

- Product ID for placing orders: Y577D500-1855-40
- Datasheet Version: 1
- No Photodiode
- Customer is responsible for suitable heat sinking
- Label on plastic bag (see picture of another product's label in picture 2):
 - LASENCE®
 - Y577D500-1855-40
 - Lasence Order Number - Module Number
 - Label Length: 30mm (+/-3mm); Width: 25mm (+/-3mm)
- Anti-static protector for transportation (see picture 4)
- Example of beam spot (see picture 5)
- Laser Beam Warning Label on module housing (see picture 1)
- Laser Marking on module housing (see picture 3):
 - Lasence Material Code
 - Lasence Order Number - Module Number

Picture 1



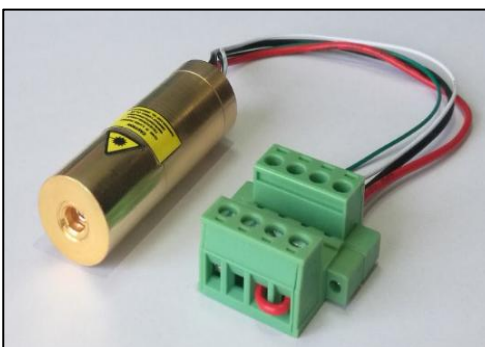
Picture 2



Picture 3



Picture 4



Picture 5

