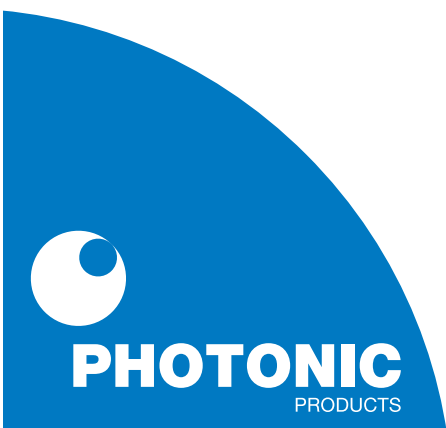


sheet

data



DPSS green laser diode module 532nm

Key features

- Visible light $\lambda = 532\text{nm}$
- Output power 0.9mW and 4mW
- Circular beam 1.2mm typ.
- Adjustable lens
- Modulation 0-1kHz
- Compact and self-contained
- High reliability

Applications

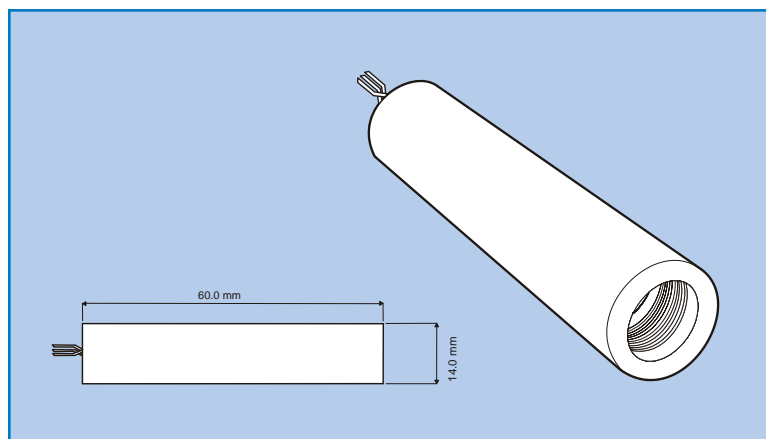
- Industrial alignment
- Medical alignment
- Scientific equipment

532nm DPSS Green Laser Diode Module

The 300-0088 series DPSS green laser diode module offers a circular output beam of 1.2mm diameter with beam divergence of $<2.0\text{mrad}$, output power of 0.9mW or 4mW, an operating voltage of 4-6V at an operating current of 350mA maximum, and operating temperature from $+10^{\circ}\text{C}$ to $+30^{\circ}\text{C}$. Power stability is better than 5% over 7 hours.

The DPSS (Diode Pumped Solid State) laser diode module has been designed as a complete laser diode solution for OEM use.

It consists of an anodised aluminium housing, laser diode, drive circuit and user-adjustable collimating lens. Electrical connections are made via external flying leads.



laser diode solutions

DPSS green laser diode module 532nm

Specifications (Tc=25°C)

ITEM / PART no.	300-0088-00	300-0088-01
Wavelength	532nm	532nm
Output Power (±10%)	0.9mW	4.0mW
Beam Size (typ 1/e ²)	1.2 mm	1.2 mm
Beam Circularity	≤ 1.3:1	≤ 1.3:1
Beam Divergence	≤ 2.0 mrad	≤ 2.0 mrad
Warm up Time	4-5 minutes	4-5 minutes
Power Stability (over 7 hours after warm up at constant temperature)	< 5%	< 5%
Power Stability (over operating temperature range)	≤ 20%	≤ 20%
Mode	TEM ₀₀	TEM ₀₀
Operating Voltage	4-6V DC	4-6V DC
Operating Current (25°C)	< 300mA	< 350mA
Operating Temperature (ambient)	+10°C to +30°C	+10°C to +30°C
Storage Temperature	-40°C to +60°C	-40°C to +60°C
Housing Material	Anodised Aluminium	Anodised Aluminium
Weight	40g	40g
Lifetime MTTF (typ)	5000 hours	5000 hours
Modulation	0 to 1kHz, 5V=ON, 0V=OFF 0 to 1kHz, 5V=ON, 0V=OFF	
Mechanical	14mm ± 0.1mm diameter, 60mm length (66mm including rear cable strain relief)	

Heat Sinking

If the case temperature of the laser diode exceeds its maximum specification, premature or catastrophic failure may occur. To ensure the maximum life of the laser diode, it is recommended that an additional electrically insulated heatsink of at least 50 sq cm be used. Thermal transfer cream can be used to improve contact and heat dissipation. Do not restrict air circulation around the device.

Power Connections

These DPSS laser diode modules require a regulated input voltage of 4-6V. Connections are made via the 3 pre-tinned external flying leads, (red is positive, black is negative, yellow is modulation).

WARNING: The housing is internally connected to the positive supply rail. Damage to the external anodised surfaces will result in the housing being at positive potential.

Specifications subject to change without notice. E&OE

Laser Safety

The light emitted from these devices has been set in accordance with IEC60825. However, staring into the beam, whether directly or indirectly, must be avoided. IEC60825 classifies laser products into three different categories depending on light emitted, wavelength and eye safety.

CLASS II

"Caution", visible laser light less than 1.0mW. Considered eye safe, normal exposure to this type of beam will not cause permanent damage to the retina.

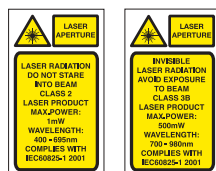
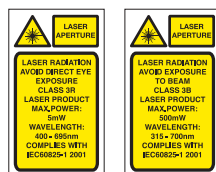
CLASS IIIIR

"Danger", visible laser light between 1.0mW and 5.0mW. Considered eye safe with caution. Focusing of this light into the eye could cause some damage.

CLASS IIIB

"Danger", infrared (IR), and high power visible lasers considered dangerous to the retina if exposed.

NB: It is important to note that while complying with the above classifications, unless otherwise stated, our laser diode products are not certified and are designed solely for use in OEM products. The way in which the device is used in the final product may alter its original design classification, and it is the responsibility of the OEM to ensure compliance with the relevant standards.



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