



**Model Number: APS-525nm-1000mW-MTM-9.0mm-CC-Z**

## **APS 1000 mW 525 nm Laser Diode Module With Adjustable Aspheric Collimating Lens**

### **Absolute Maximum Ratings at 25 °C**

| <b>Item</b>                        | <b>Ratings</b>   | <b>Unit</b> |
|------------------------------------|------------------|-------------|
| <b>CW Output Power</b>             | <b>1000</b>      | <b>mW</b>   |
| <b>Laser Diode Reverse Current</b> | <b>85</b>        | <b>mA</b>   |
| <b>Maximum Operating Current</b>   | <b>1800</b>      | <b>mA</b>   |
| <b>Operating Temperature</b>       | <b>20 to 30</b>  | <b>°C</b>   |
| <b>Storage Temperature</b>         | <b>-40 to 85</b> | <b>°C</b>   |

- **Simple Integrated Package**
- **Excellent Diode Heatsinking**
- **Small Footprint**
- **Simple Connection With Two Power Leads**
- **Adjustable Collimating Lens**
- **Lightweight, Rugged**
- **Precision Machined**

**Applications: Illumination, Laser Dazzlers and Flashlights, Laser Projection and Shows**

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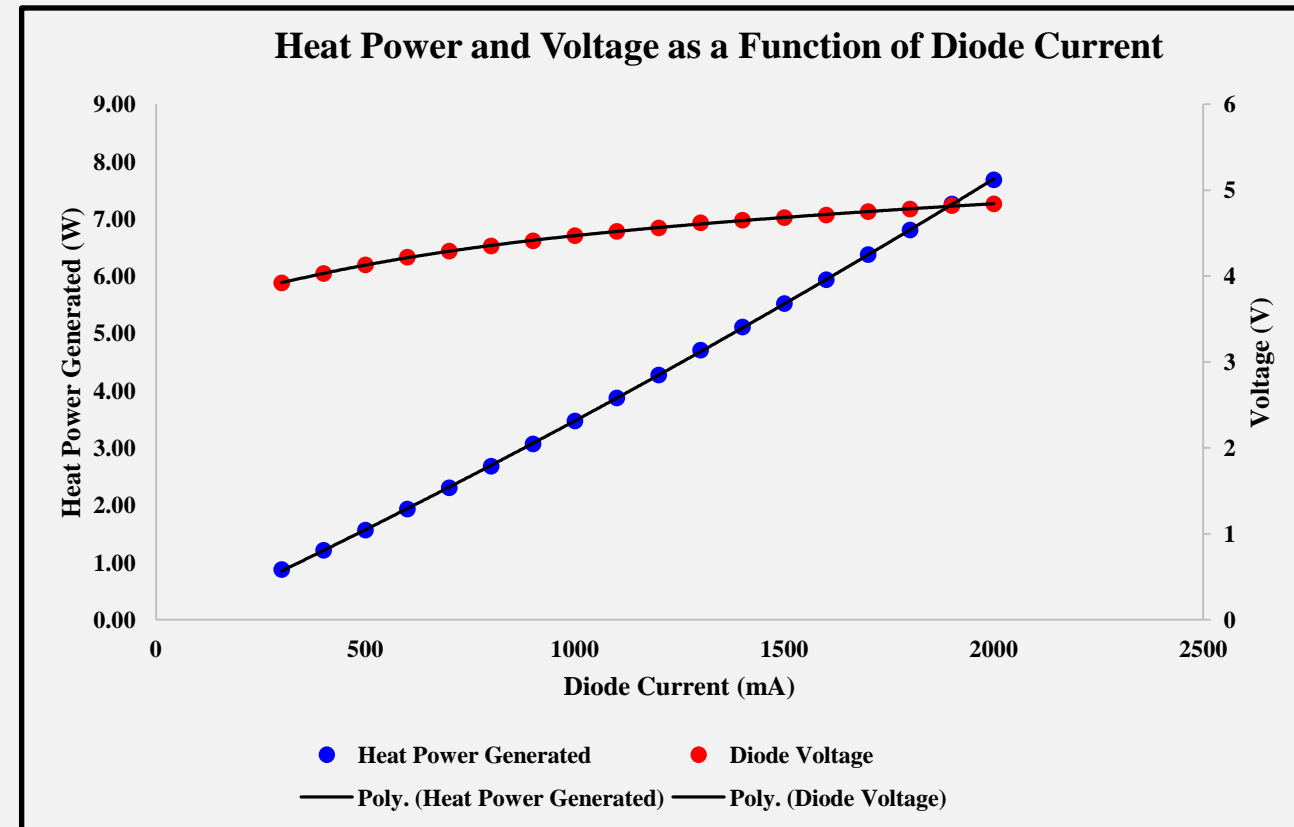
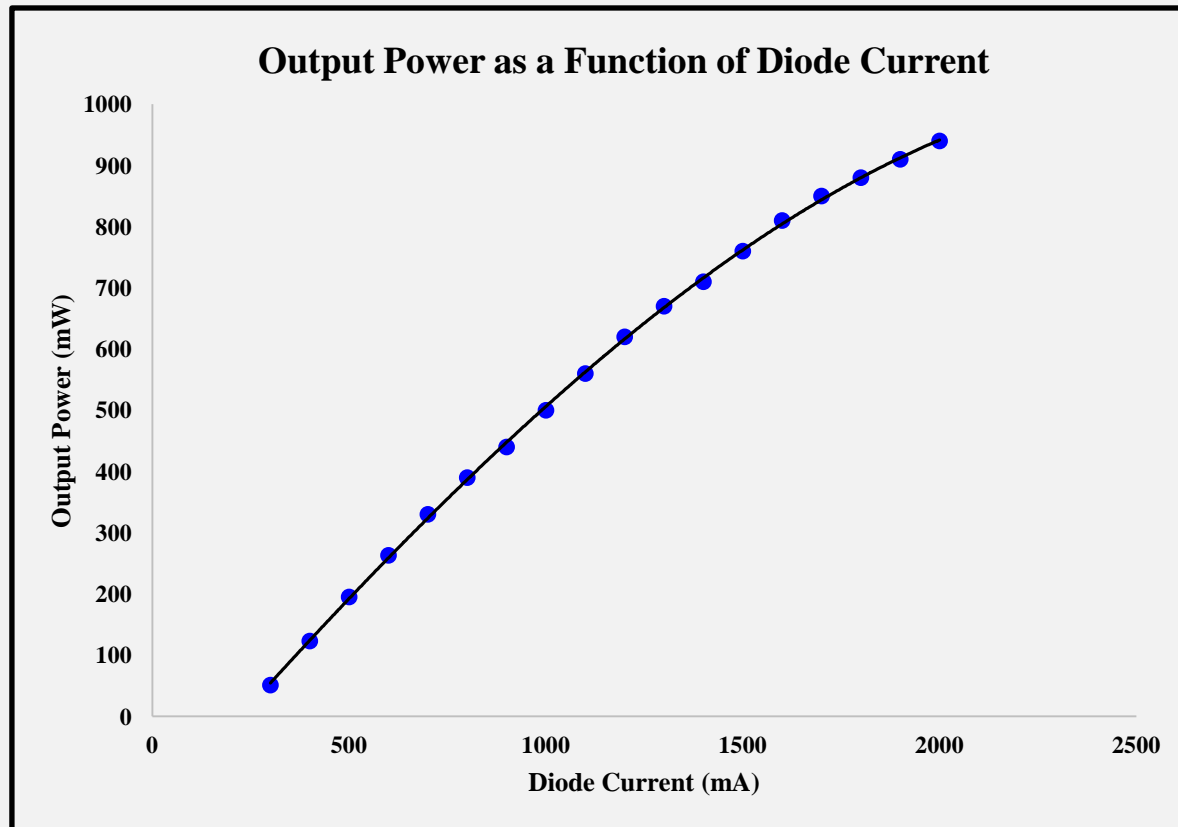
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**Optical and Electrical Characteristics at 25 °C**

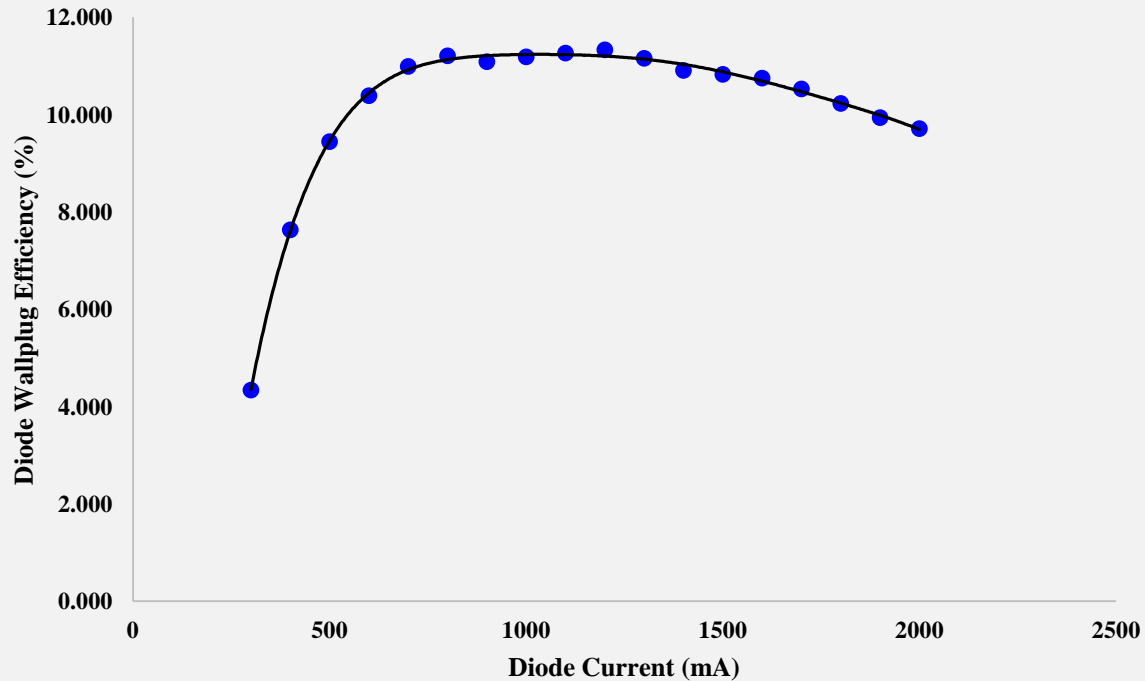
| Parameter                 | Min | Typical | Max  | Units | Test Condition                                 |
|---------------------------|-----|---------|------|-------|--|
| Threshold Current         | 150 | 300     | 500  | mA    | -  |
| Operating Current         | -   | 1600    | 1800 | mA    | $P_o = 1000$ mW                                |
| Operating Voltage         | 4.0 | 4.7     | 6.0  | V     | $P_o = 1000$ mW                                |
| Fast Axis Beam Divergence | 35  | 46      | 55   | °     | $P_o = 1000$ mW<br>1/e <sup>2</sup> Full Angle |
| Slow Axis Beam Divergence | 5   | 11      | 25   | °     | $P_o = 1000$ mW<br>1/e <sup>2</sup> Full Angle |
| Lasing Wavelength         | 515 | 525     | -    | nm    | $P_o = 1000$ mW                                |
| Transverse Mode           | MTM | MTM     | MTM  | -     | All Currents                                   |
| Polarization TE           | -   | -       | -    | -     | Horizontal                                     |

## Module Experimental Data

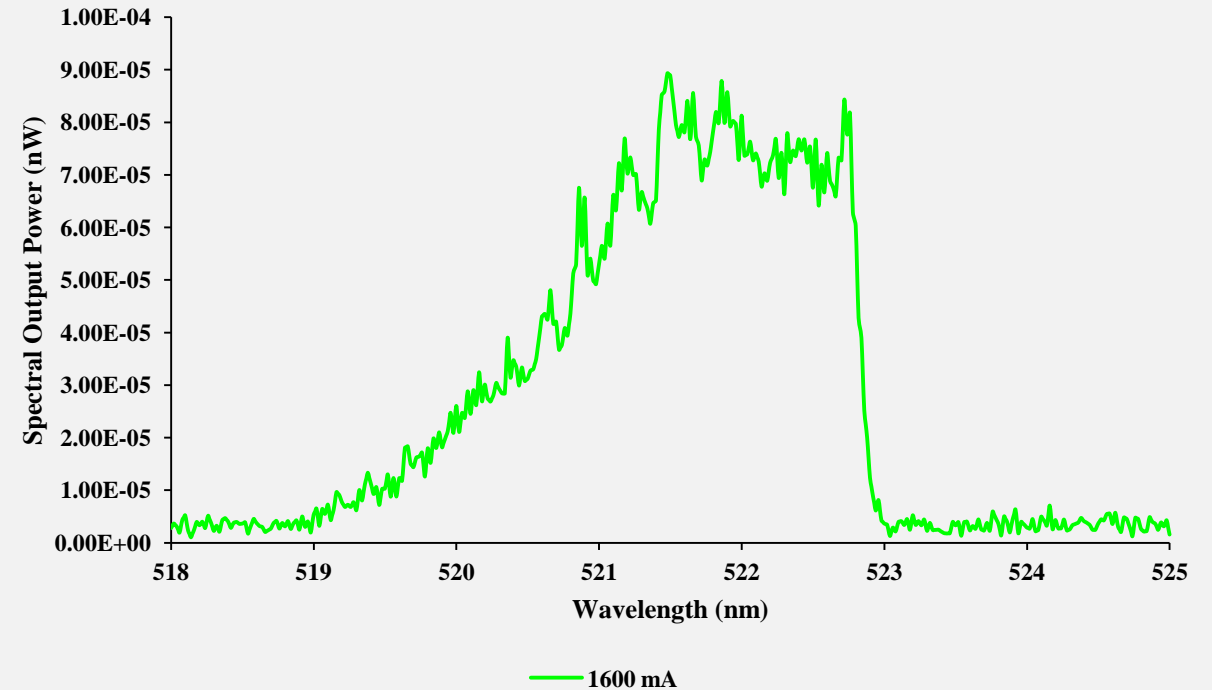


## Module Experimental Data

Wallplug Efficiency as a Function of Diode Current

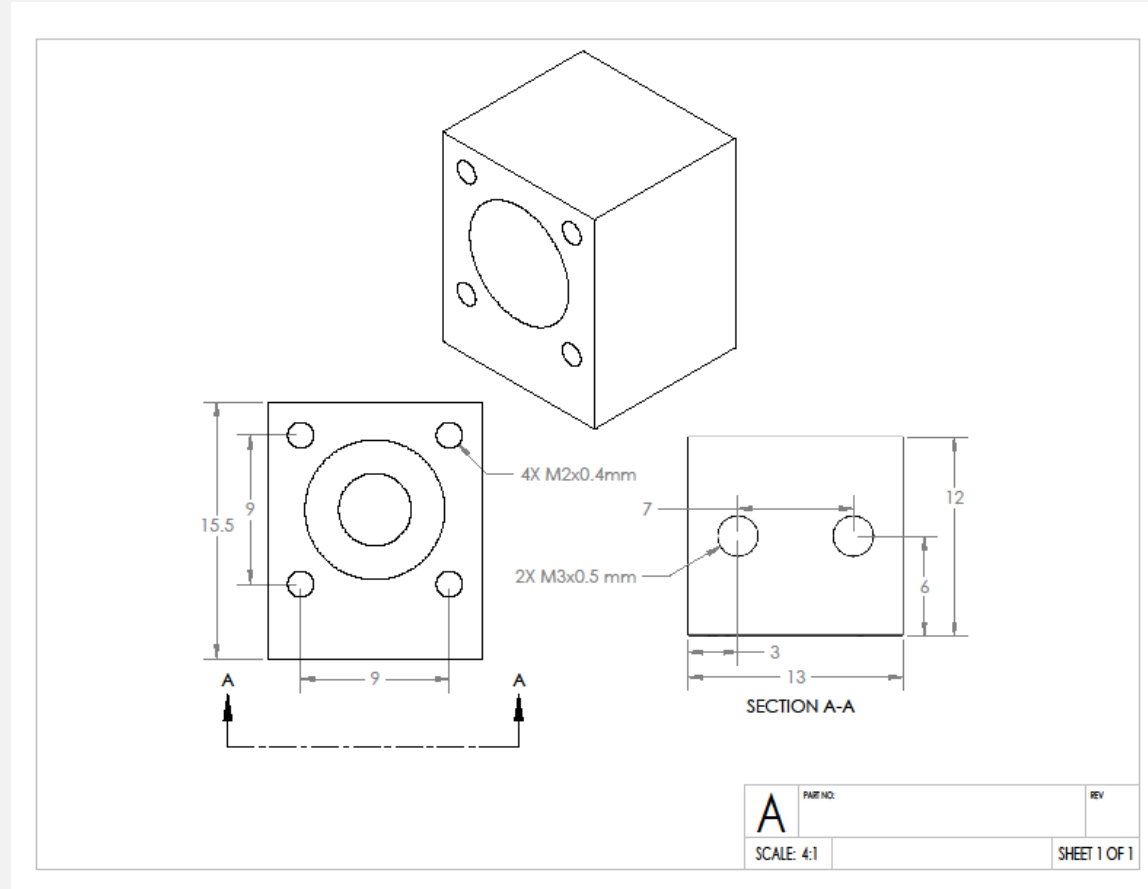


Spectral Output Power as a Function of Wavelength



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**Module Dimensions and Mounting Screws**





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## **Laser Safety Warnings**

- **This OEM Micro-Module is meant for integration into other systems, and as such is not CDRH compliant.**
- **This Micro-Module is a Class 4 laser product.**
- **Always use laser safety glasses with sufficient Neutral Density at the operating wavelength of 525 nm to protect your eyes.**
- **Skin exposure to this laser product should be avoided.**