



**Model Number: APS-450nm-3000mW-MTM-9.0mm-CC-Z-Cu-Au**

**APS 3000 mW 450 nm Laser Diode Gold-Coated Copper Module  
With Adjustable Aspheric Collimating Lens**

**Absolute Maximum Ratings at 25 °C**

Item	Ratings	Unit
CW Output Power	3200	mW
Laser Diode Reverse Current	20	mA
Maximum Operating Current	2300	mA
Operating Temperature	0 to 85	°C
Storage Temperature	-20 to 120	°C

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

**Applications: Laser Engraving, Marking,  
Pumping Ti:Sapphire, Pr:YLF, Other  
Solid-State Lasers**

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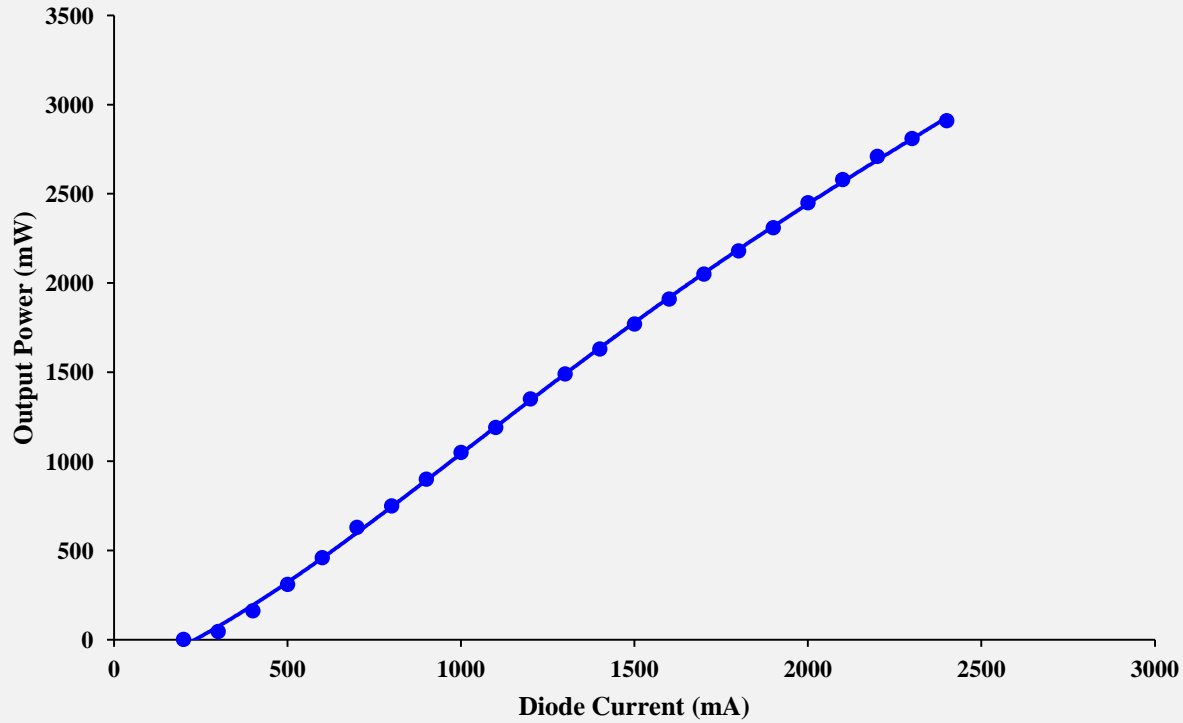
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**Optical and Electrical Characteristics at 25 °C**

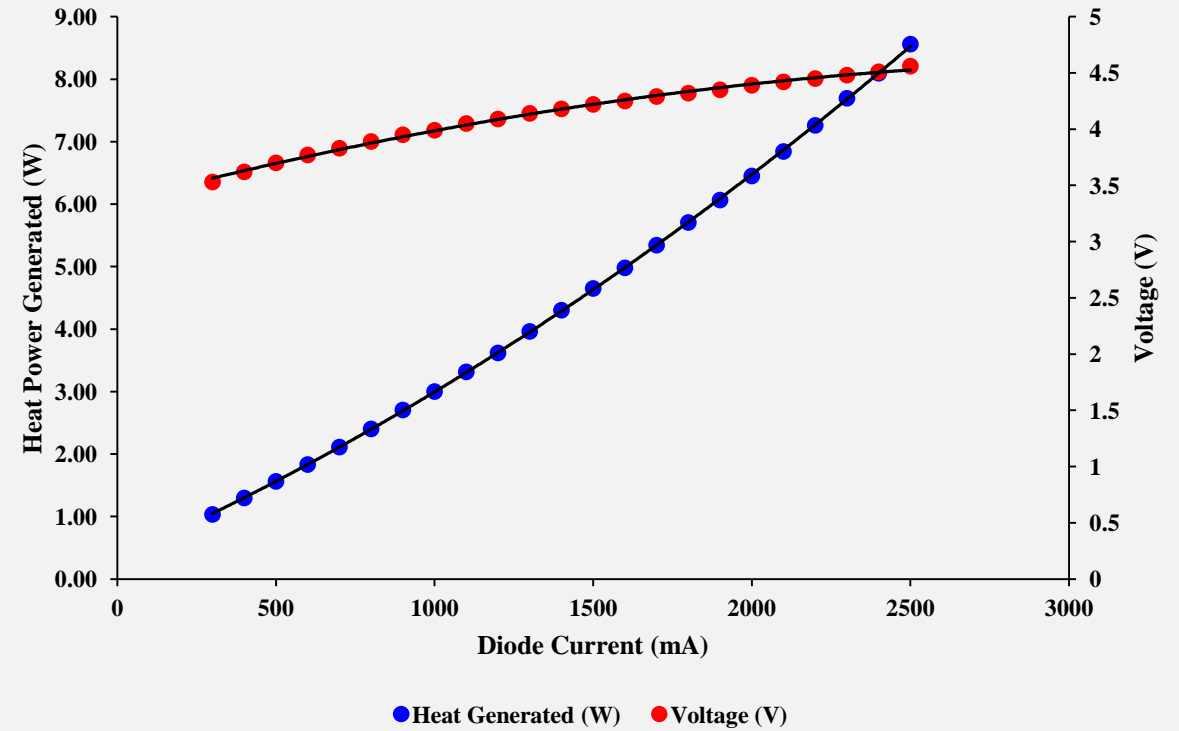
Parameter	Min	Typical	Max	Units	Test Condition
Threshold Current	-	270	450	mA	-
Operating Current	-	1900	2300	mA	$P_o = 3000$ mW
Operating Voltage	-	-	5.5	V	$P_o = 3000$ mW
Fast Axis Beam Divergence	-	49	-	°	$P_o = 3000$ mW 1/e <sup>2</sup> Full Angle
Slow Axis Beam Divergence	-	7	-	°	$P_o = 3000$ mW 1/e <sup>2</sup> Full Angle
Lasing Wavelength	437	-	460	nm	$P_o = 3000$ mW
Transverse Mode	MTM	MTM	MTM	-	All Currents
Polarization TE	-	-	-	-	Horizontal

## Module Experimental Data

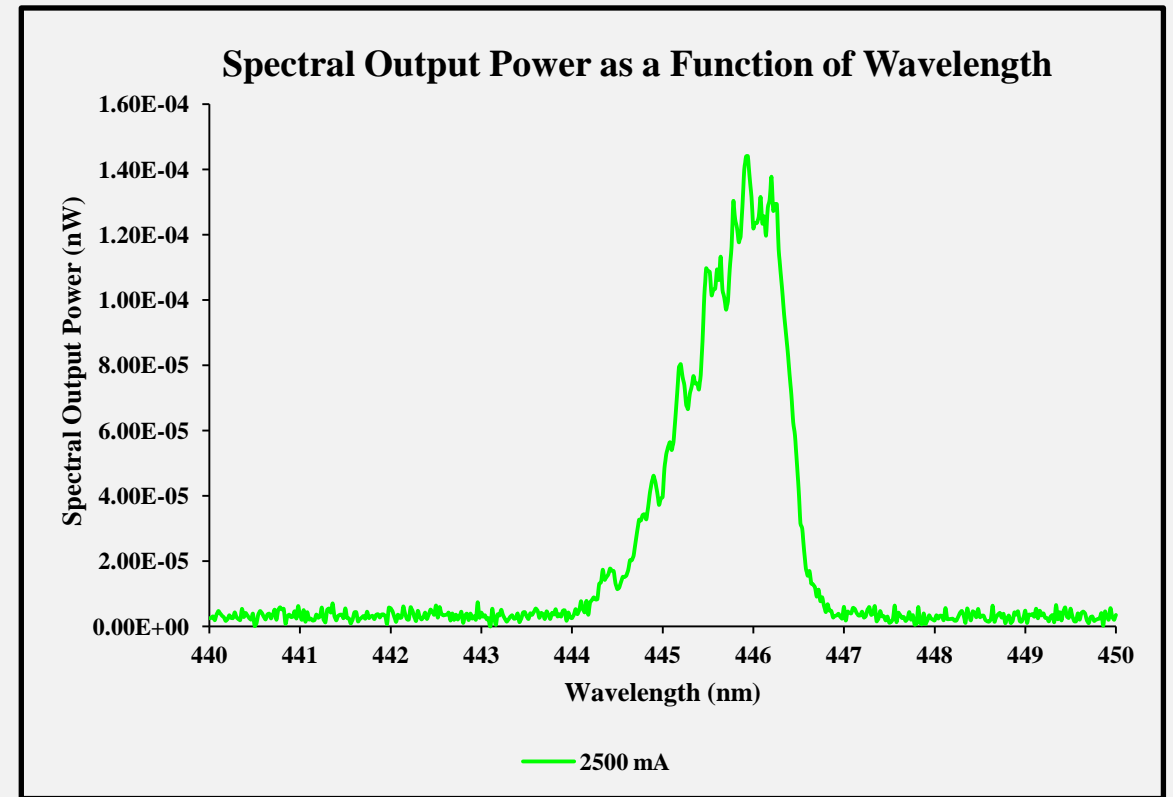
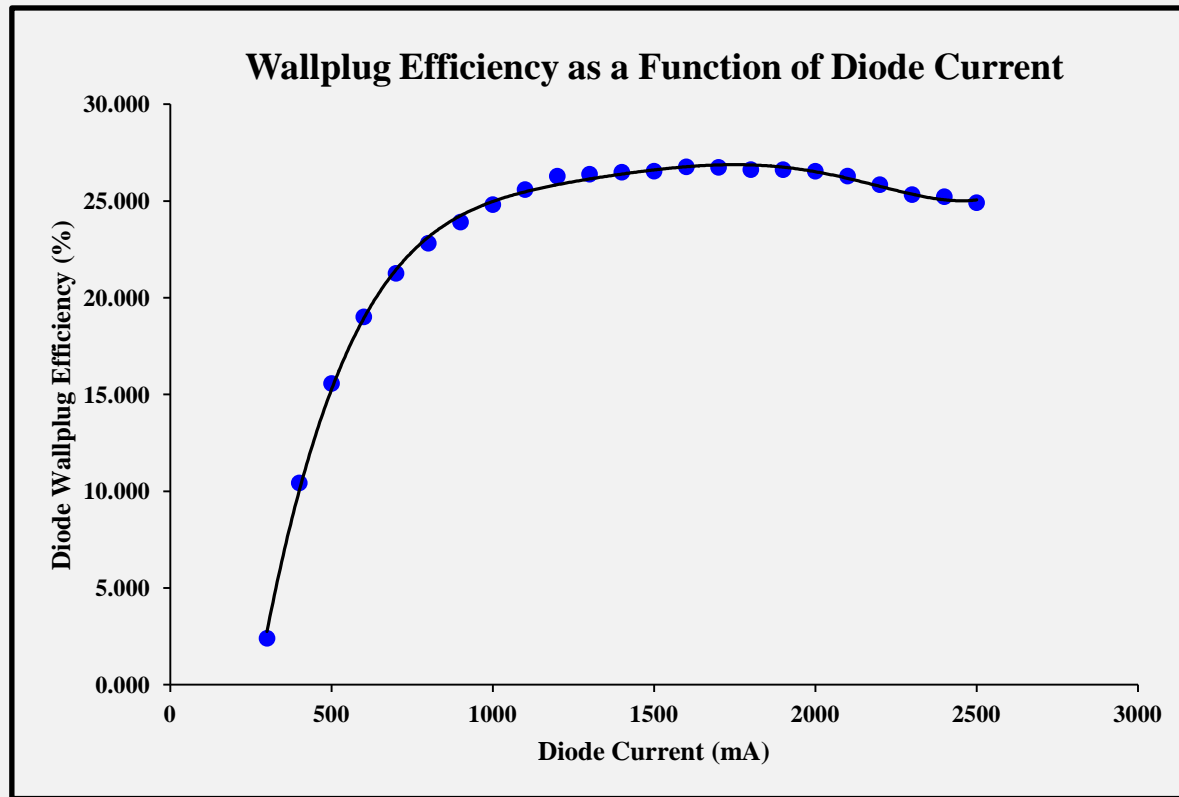
**Output Power as a Function of Diode Current**



**Heat Power and Voltage as a Function of Diode Current**

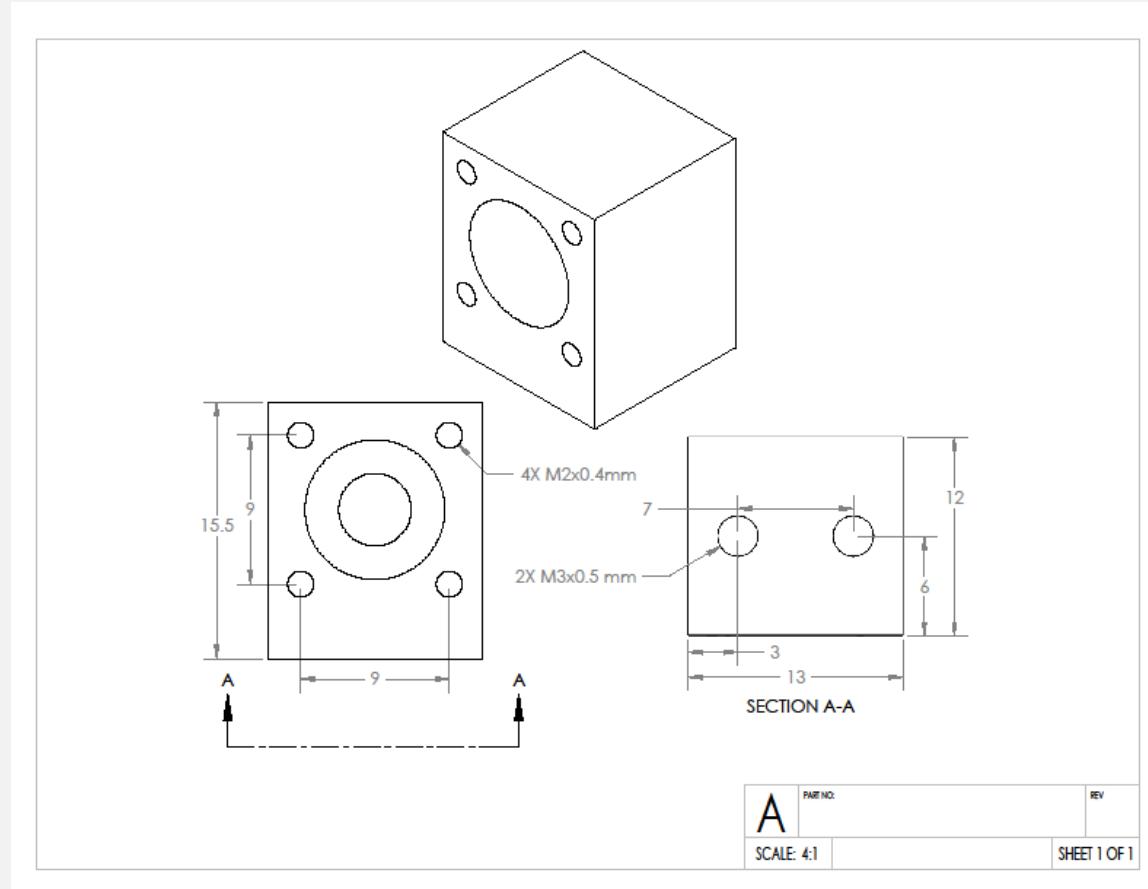


## Module Experimental Data



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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 450 nm to protect your eyes.**
- **Skin exposure to this laser product should be avoided.**