



Model Number: APS-450nm-1600mW-MTM-5.6mm-CC-Z

APS 1600 mW 450 nm Laser Diode Module With Adjustable Aspheric Collimating Lens

Absolute Maximum Ratings at 25 °C

Item	Ratings	Unit
CW Output Power	1500	mW
Laser Diode Reverse Voltage	5	V
Maximum Operating Current	1600	mA
Operating Temperature	0 to 70	°C
Storage Temperature	-40 to 85	°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, Projection, Lightshow, Stage Lighting



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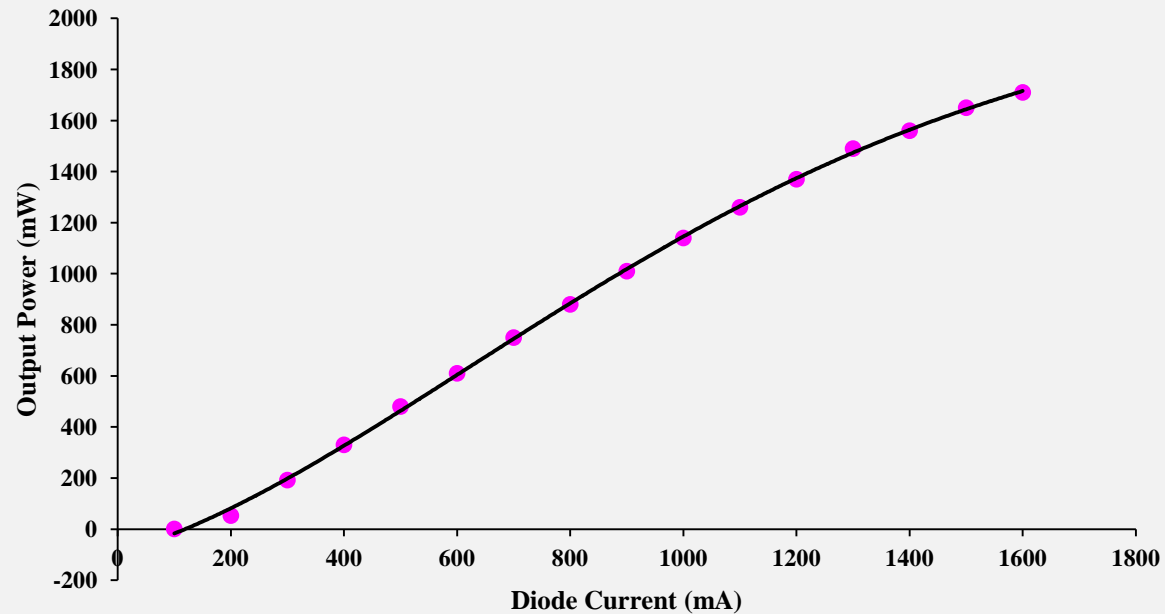
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Optical and Electrical Characteristics at 25 °C

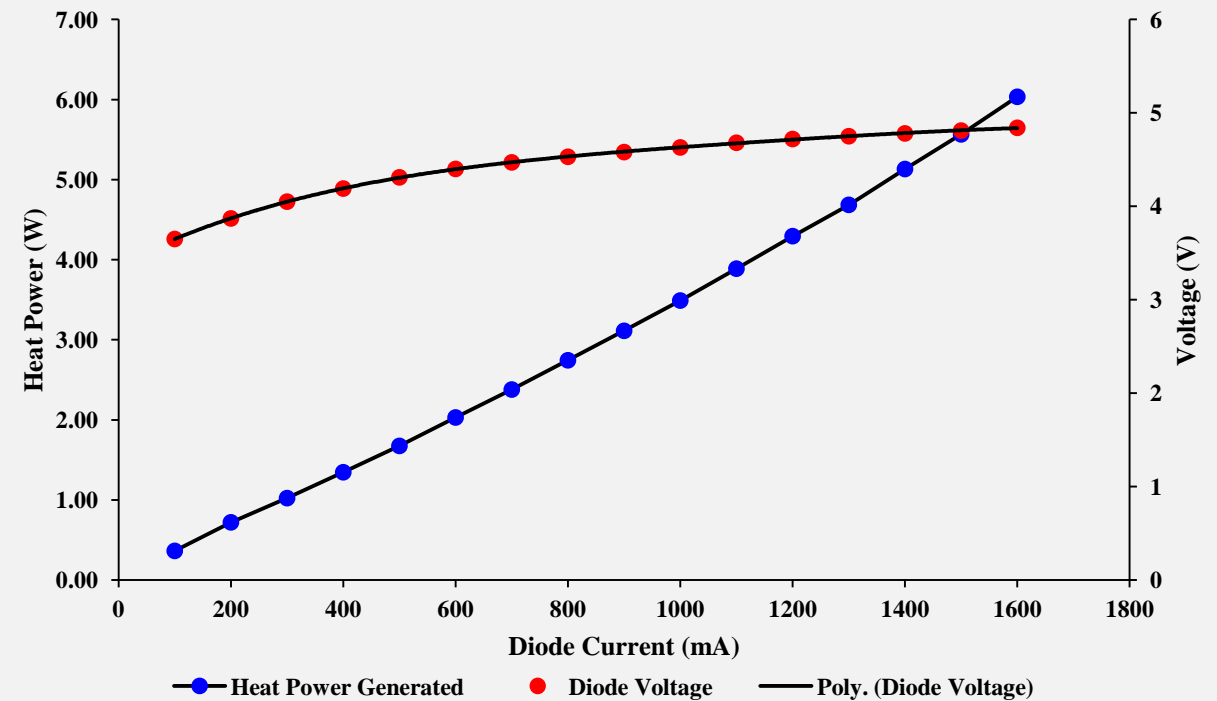
Parameter	Min	Typical	Max	Units	Test Condition
Threshold Current	-	200	300	mA	-
Operating Current	-	1200	1500	mA	$P_o = 1600$ mW
Operating Voltage	-	4.8	6.0	V	$P_o = 1600$ mW
Fast Axis Beam Divergence	36	43	50	°	$P_o = 1600$ mW 1/e ² Full Angle
Slow Axis Beam Divergence	-	11	18	°	$P_o = 1600$ mW 1/e ² Full Angle
Lasing Wavelength	440	450	460	nm	$P_o = 1600$ mW
Transverse Mode	MTM	MTM	MTM	-	All Currents
Polarization TE	-	-	-	-	Horizontal

Module Experimental Data

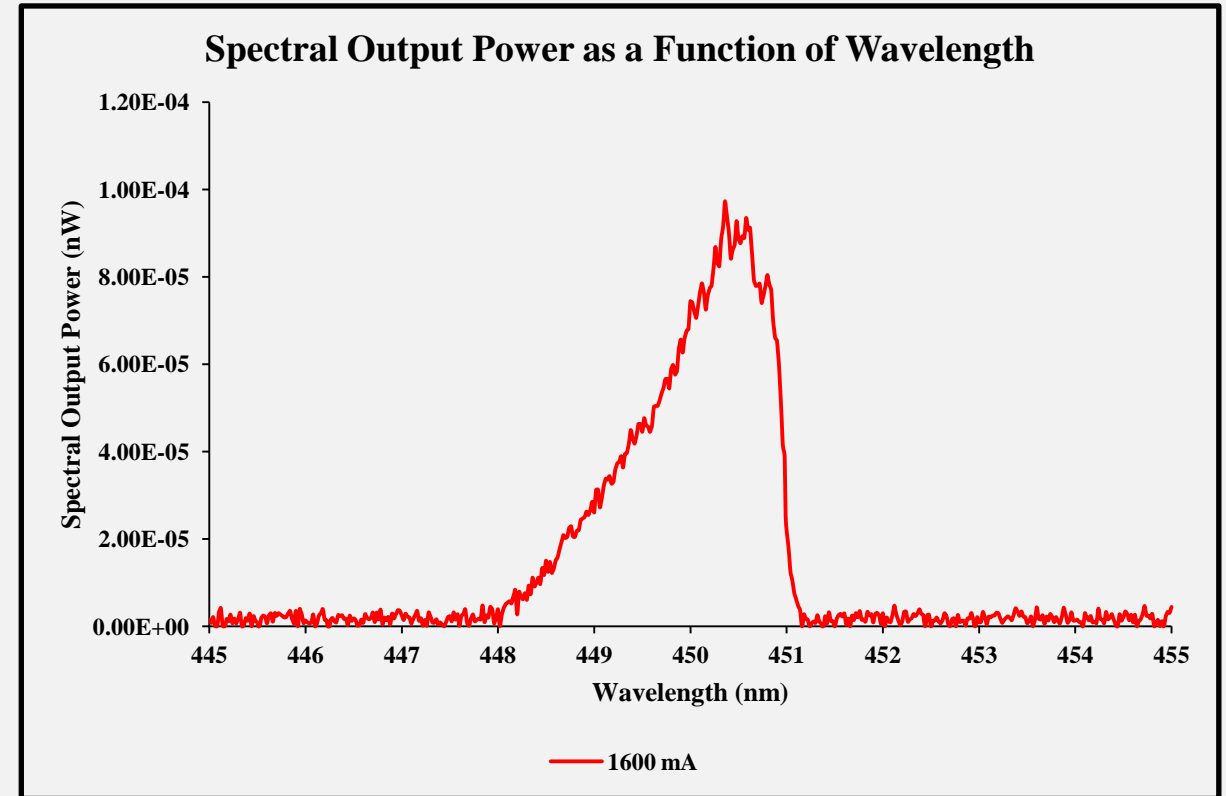
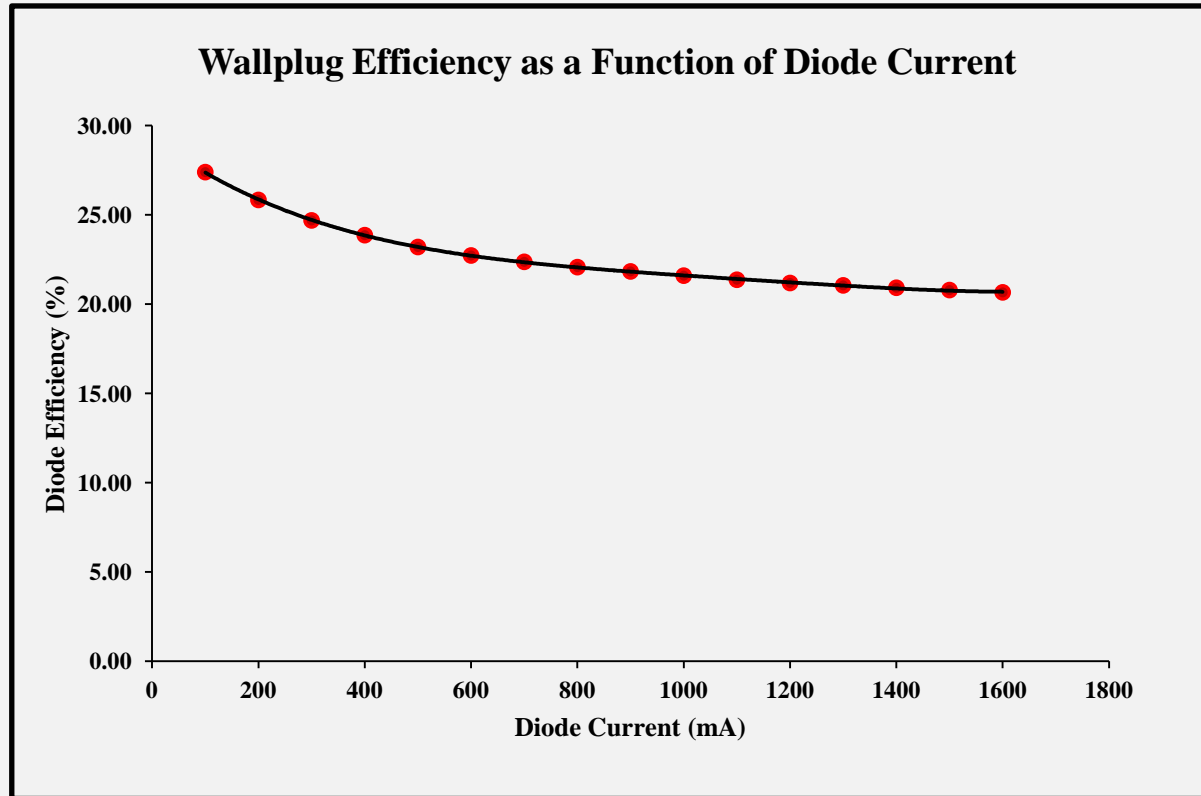
Output Power as a Function of Diode Current



Heat Power and Voltage as a Function of Diode Current

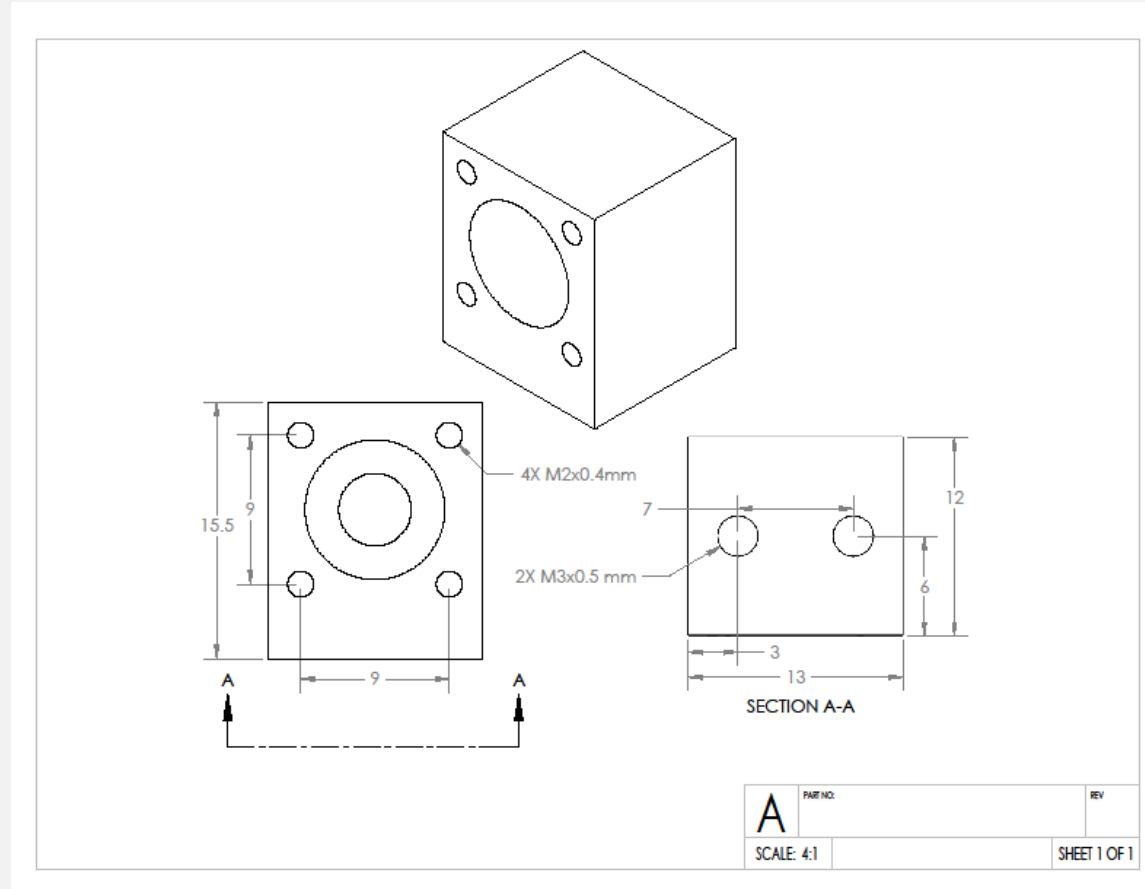


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Module Dimensions and Mounting Screws





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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.**