



Model Number: APS-638nm-110mW-STM-5.6mm-CC

APS 110 mW 638 nm Laser Diode Module With Adjustable Aspheric Collimating Lens

Absolute Maximum Ratings at 25 °C

Item	Ratings	Unit
CW Output Power	110	mW
Laser Diode Reverse Voltage	2	V
Maximum Operating Current	200	mA
Operating Temperature	-5 to 60	°C
Storage Temperature	-40 to 100	°C

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

**Applications: Pointing, Illumination,
Alignment, Displays, Bio-Medical**



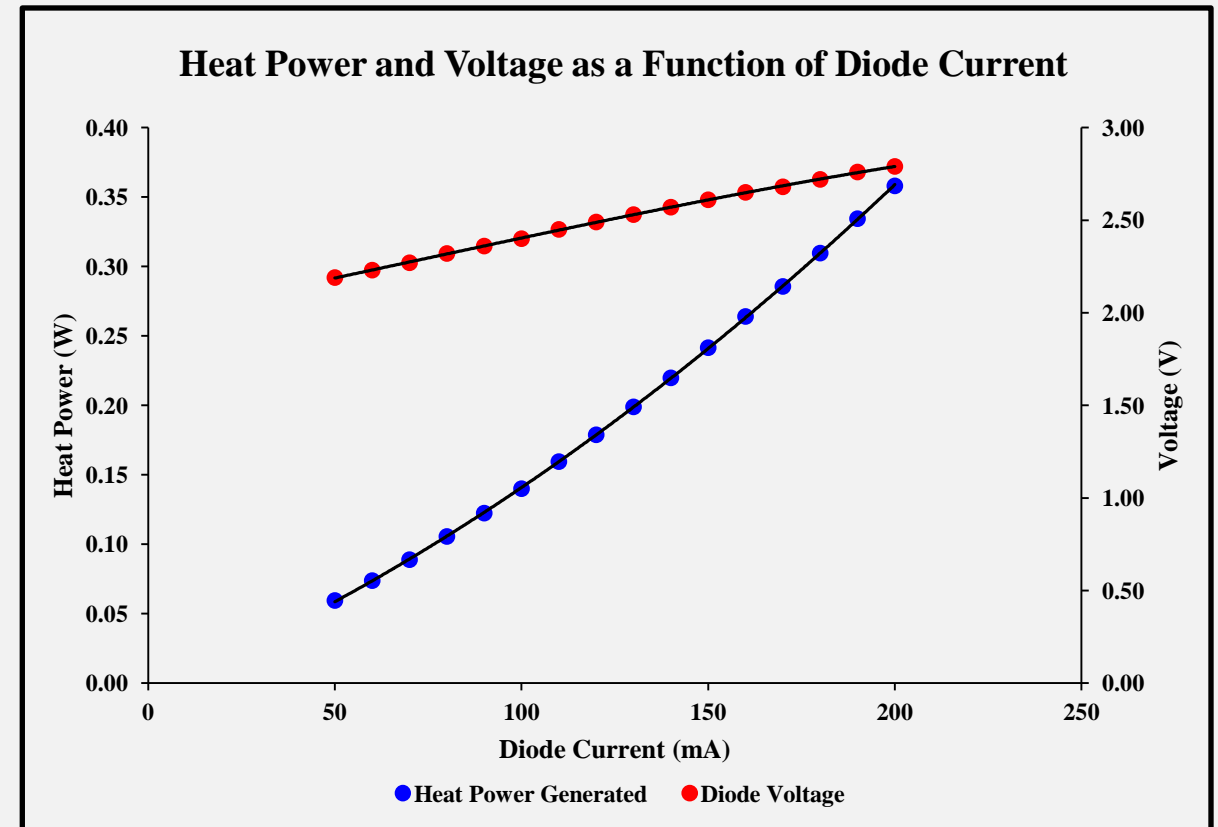
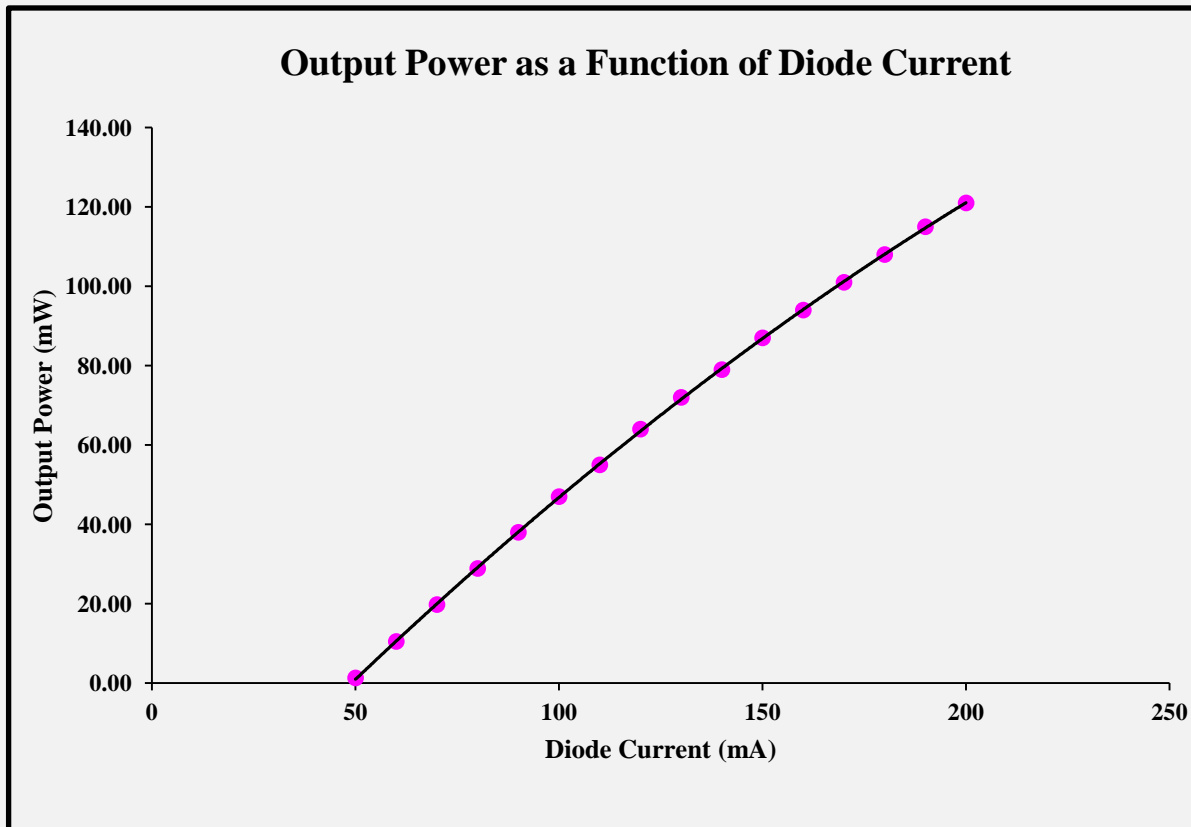


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Optical and Electrical Characteristics at 25 °C

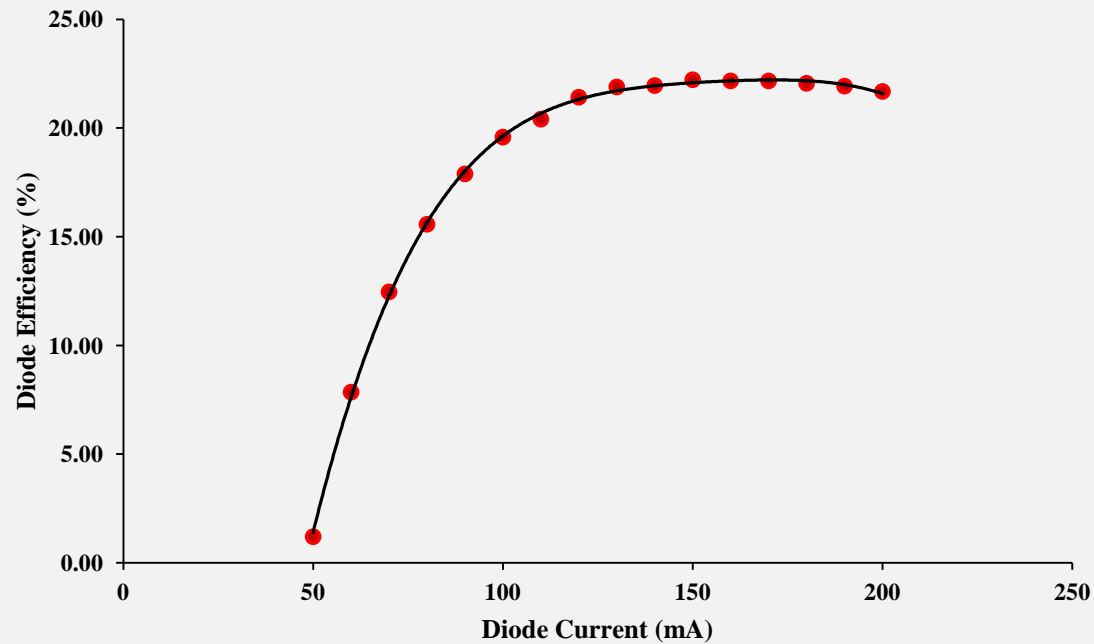
Parameter	Min	Typical	Max	Units	Test Condition
Threshold Current	35	50	65	mA	-
Operating Current	100	150	200	mA	P_o = 110 mW
Operating Voltage	-	-	2.7	V	P_o = 110 mW
Fast Axis Beam Divergence	25	34	43	°	P_o = 110 mW 1/e² Full Angle
Slow Axis Beam Divergence	9	16	23	°	P_o = 110 mW 1/e² Full Angle
Lasing Wavelength	632	638	644	nm	P_o = 110 mW
Transverse Mode	STM	STM	STM	-	All Currents
Polarization TE	-	-	-	-	Horizontal

Module Experimental Data

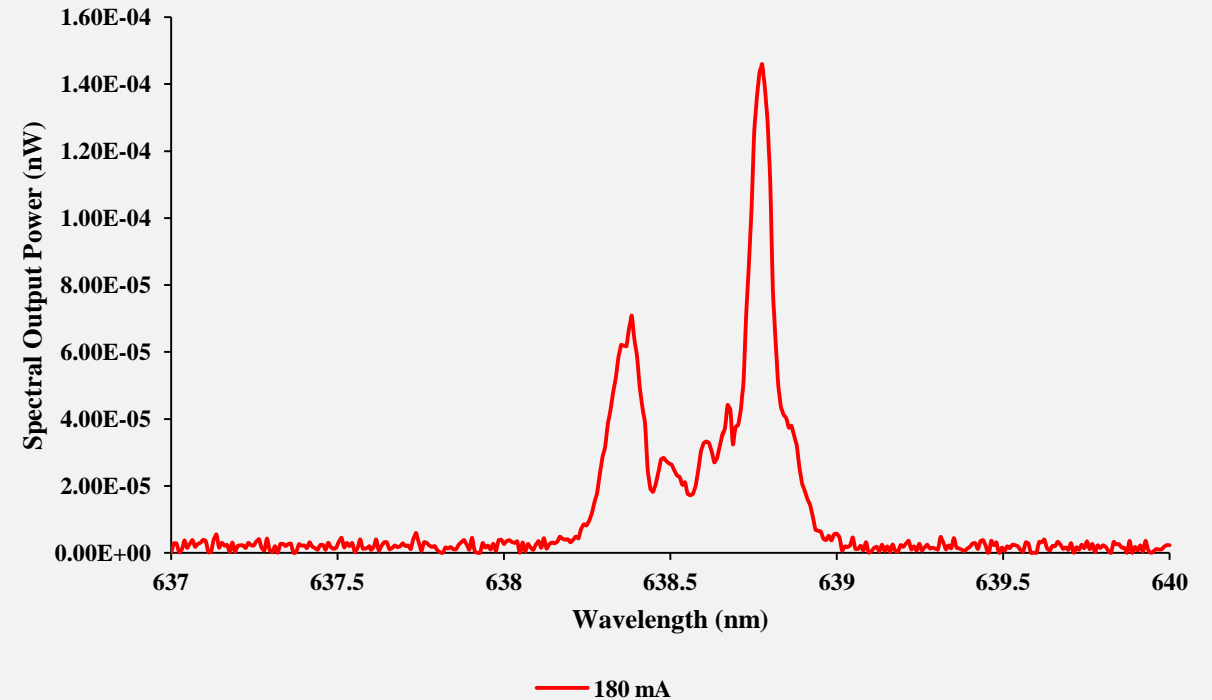


Module Experimental Data

Wallplug Efficiency as a Function of Diode Current

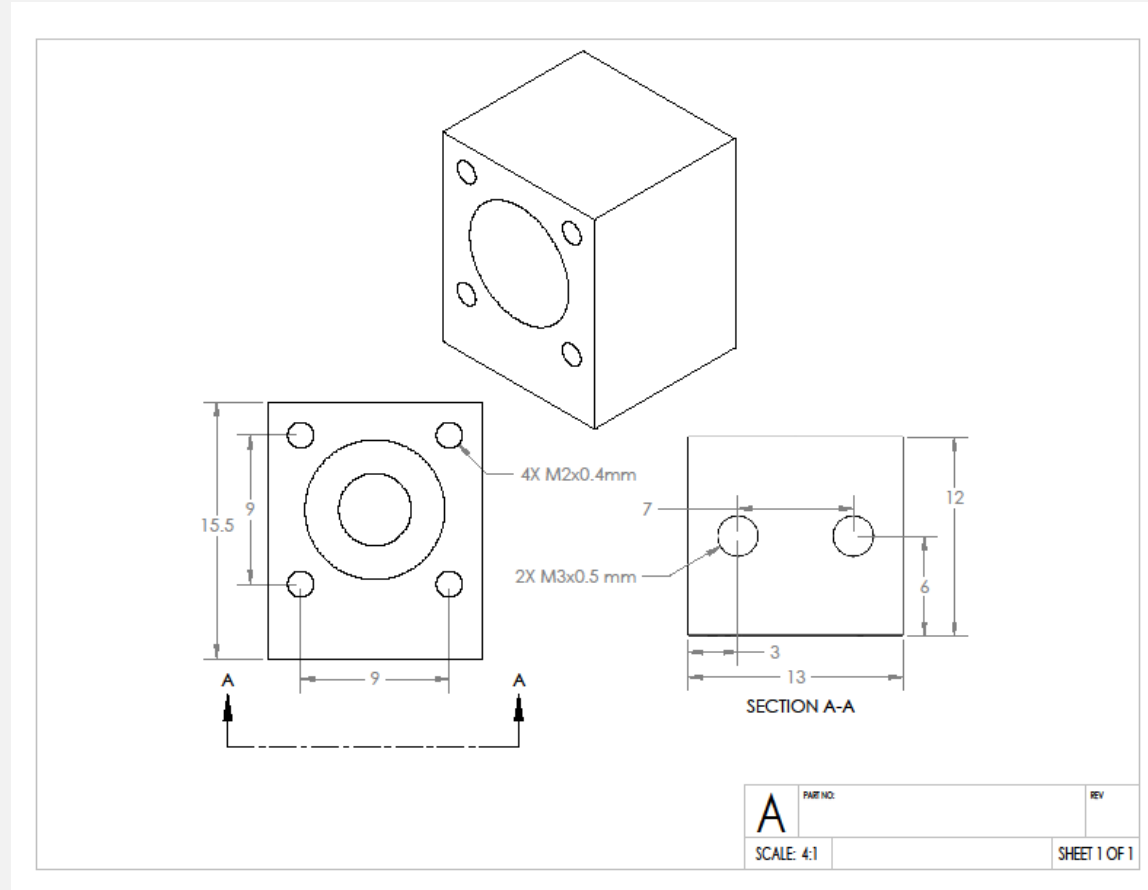


Spectral Output Power as a Function of Wavelength



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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 3B laser product.**
- **Always use laser safety glasses with sufficient Neutral Density at the operating wavelength of 638 nm to protect your eyes.**
- **Skin exposure to this laser product should be avoided.**