

PART NUMBER: ASM18C020
SILVER BULLET SUBMODULE

> FEATURES AND BENEFITS

- Simple & Flexible Design Is Suitable For Industrial Or Military Developments
- Ideal Building Block For Applications Utilizing 20W CW Or 50W QCW Bars
- An Industry Standard With > 100,000 Packaged Silver Bullets In The Field
- Available Wavelengths (790-980nm)

> OPTICAL CHARACTERISTICS

Parameter	Conditions	Typical	Units
CW Power Output	25A at 25°C Heat Sink	20	W
Operating Current	20W at 25°C Heat Sink	25	A
Threshold Current	25°C Heat Sink	8	A
Slope Efficiency	25°C Heat Sink	1.15	W/A
Efficiency	20W at 25°C Heat Sink	47	%
Center Wavelength	20W at 25°C Heat Sink	808	nm
Wavelength Tolerance	20W at 25°C Heat Sink	+/-3	nm
Spectral Width	20W at 25°C Heat Sink	1.8	nm
Wavelength Shift	—	0.25	nm/°C
Beam Divergence FWHM	—	40x10	°x°

> ELECTRICAL CHARACTERISTICS

Parameter	Conditions	Typical	Units
Series Resistance	25°C Heat Sink	0.004	ohms
Operating Voltage	25°C Heat Sink, 20W	1.7	V

> ABSOLUTE MAXIMUM RATINGS

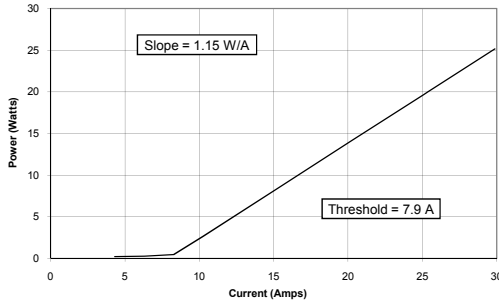
Parameter	Conditions
Reverse Current	0 A
Reverse Voltage	0 V
Operating Temperature Range	-40°C to 70°C
Storage Temperature Range	-40°C to 85°C

> NOTES

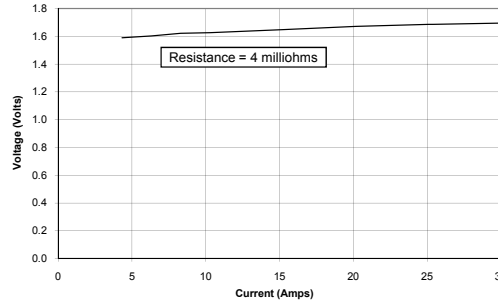
- (1) These specifications apply for operation at 808nm. Other wavelengths available upon request.
- (2) A dry nitrogen environment should be provided by the user when storing and operating at temperatures below ambient dew point.

OPTICAL CHARACTERISTICS (TYPICAL)

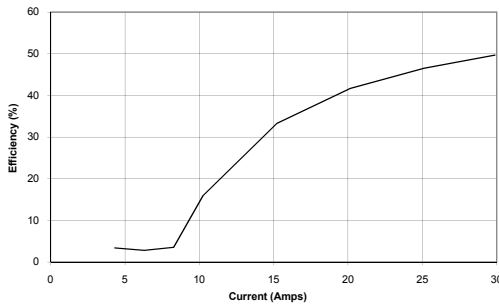
Power vs Current
25°C



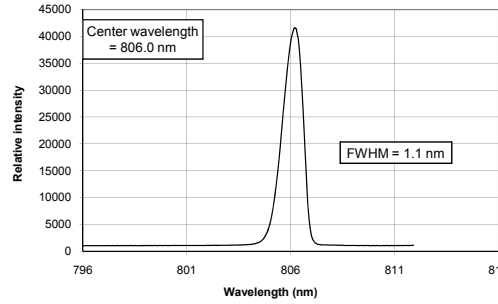
Voltage vs Current
25°C



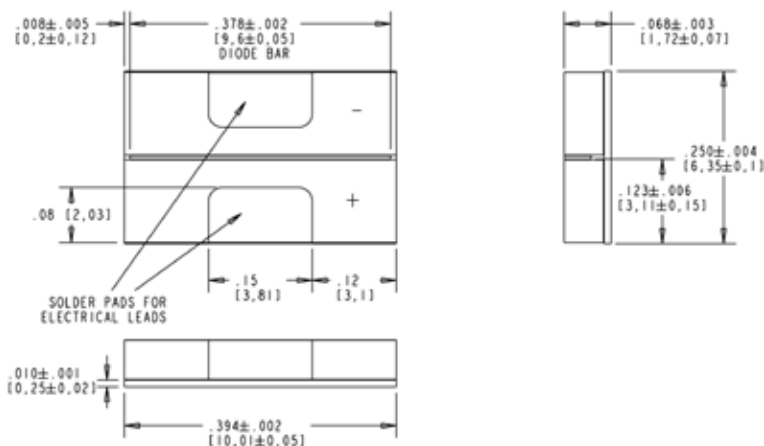
Efficiency vs Current
25°C



Wavelength Spectrum
20.0 W, 25.4 A, 25°C



MECHANICAL CHARACTERISTICS



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WARNING

DANGER

INVISIBLE LASER RADIATION

AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION.

Diode laser
5W & up, 780-1560nm
CLASS IV

WARNING

ELECTROSTATIC DISCHARGE SENSITIVE DEVICE
REQUIRING SPECIAL HANDLING

Rev: B 04/10