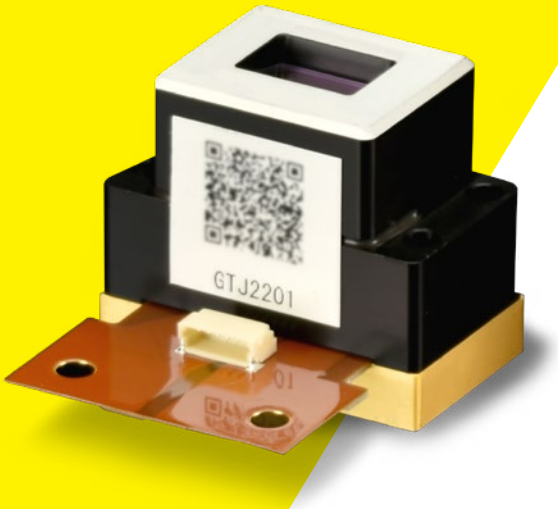
NECSEL

NECSEL™ YELLOW

YELLOW LASER ARRAY | 577nm - 1W

Model: EVO-577



ENABLING & AFFORDABLE

The Necsel 577nm Yellow Laser produces 1W (QCW) power from a package of less than one cubic inch. This laser uses Prism Award winning, patented technology to create new wavelengths in reliable, industry proven free-space or fiber-coupled configurations. For users who want to get started right away, combine this laser with the Necsel Developer's Kit for CW operation.

FEATURES

- 1W (QCW) of Power
- Patented Technology
- Small Footprint
- Optional Fiber Coupling
- Optional Developer's Kit

APPLICATIONS

- Opthalmics
- Biomedical
- Life Sciences
- Lighting
- Biochemistry
- Molecular Biology
- Pharmaceutical Chemistry
- Photochemistry & Photobiology

www.necsel.com | necselsales@ushio.com

USHIO

SPECIFICATIONS SUMMARY

Parameter	Min	Limits Typ	Max
Operating Power (CW)[1]	0.3 W	0.35 W	
Package Thermistor Temperature	20°C	30°C	35°C
Wavelength Range	575.5nm	577.5nm	579.5nm
Spectral Width at FWHM	–	0.2nm	0.4nm

SINGLE BEAM SPECIFICATIONS

(1/e2) Beam Diameter	–	0.08mm	0.15mm
(1/e2) Beam Divergence, Full Angle	8mrad	10mrad	14mrad

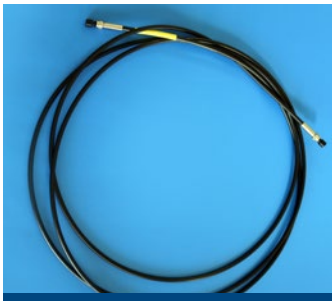
ARRAY SPECIFICATIONS

Number of Rows		2	
Number of Output Beams Per Row	20	24	24
Emitter Pitch Spacing		0.328mm	
Emitting Area Width[3]	–	–	3.5mm
Emitting Area Length[3]	–	8mm	–
Polarization Ratio[4]	100:1	150:1	2000:1
IR Leakage[5]	–	10mW	30mW

ARRAY BEAM STATIC ALIGNMENT TOLERANCES (NON-FC)

Primary Beam Angle[6]	–	±5mrad	±8mrad
Distance between rows of beams (at output window)	1.7mm	2.1mm	2.5mm
Pointing angle difference between rows	0.328mm		

OPTIONAL ACCESSORIES



TRANSPORT FIBER

DEVELOPER'S KIT

FIBER-COUPLED

[1] Each laser is provided with a test sheet defining the drive current and PPLN temperature to achieve CW operating power at a typical Necsel of 30°C. PPLN temperature must be optimized. The operating temperature may be decreased, however, the drive current must not exceed the test sheet value.

[2] Relative to the top of the cap. Row 2 is the row closer to the flex circuit.

[3] Defined as the area of an aperture placed at the emitting face of the package that encompasses all beams.

[4] Polarization is perpendicular to the plane of the two rows of emitters exiting the package.

[5] IR leakage with window

[6] Primary beam axis relative to surface normal of package base

*Specifications of lifetime, power, and operating current varies depending on product usage.

SPECIFICATIONS SUMMARY

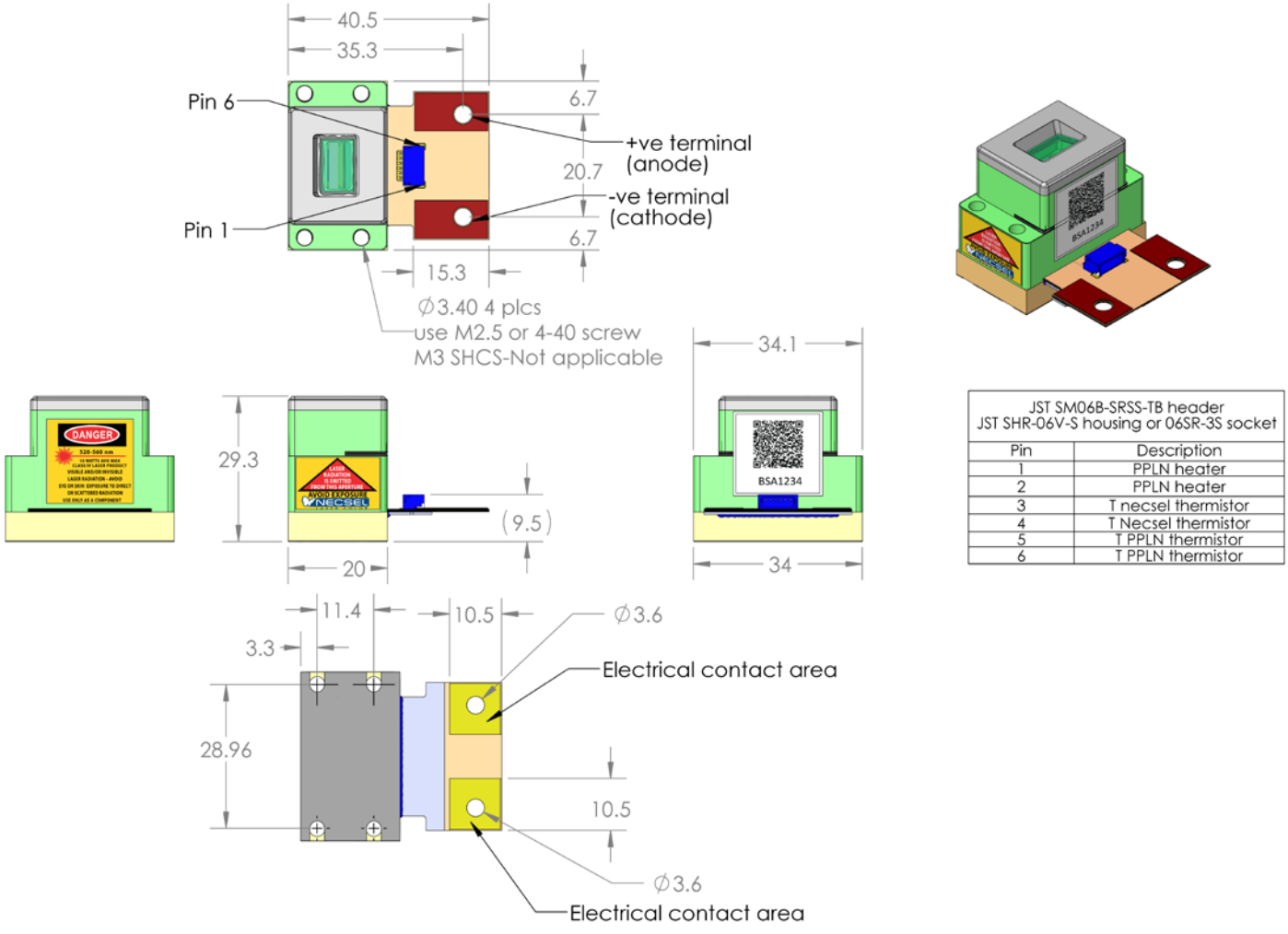
RECOMMENDED MINIMUM LASER DRIVER OPERATING RANGE

Input Voltage	–	–	3.0 V
Peak Input Current	–	–	20A

PPLN RECOMMENDED DRIVE CONDITIONS

PPLN Input Voltage	2	–	12 V
PPLN Input Current	–	–	.5A
PPLN Thermistor Temp.	75°C	–	112°C

MECHANICAL SPECIFICATIONS



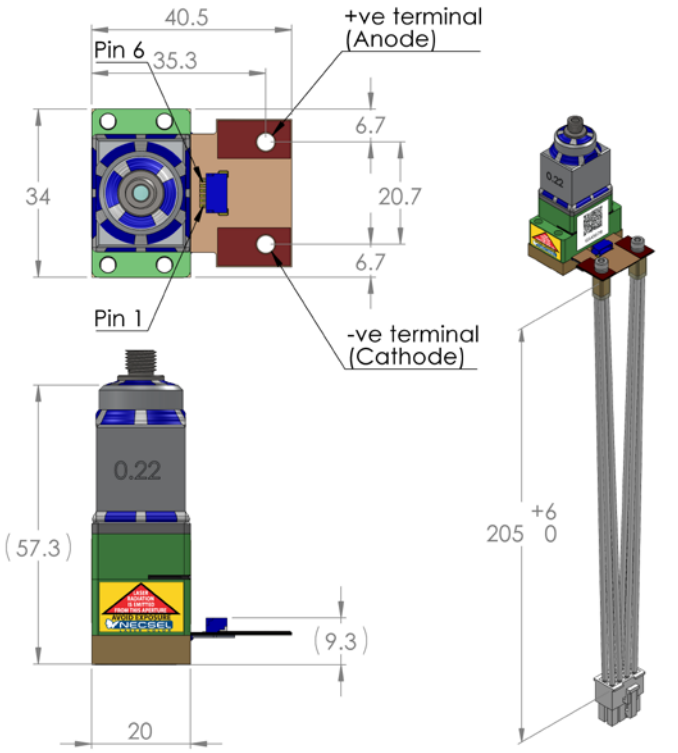
JST SM06B-SRSS-TB header
JST SHR-06V-S housing or 06SR-3S socket

Pin	Description
1	PPLN heater
2	PPLN heater
3	T necsel thermistor
4	T Necsel thermistor
5	T PPLN thermistor
6	T PPLN thermistor

*Specifications of lifetime, power, and operating current varies depending on product usage.

SPECIFICATIONS SUMMARY

FIBER-COUPLING OPTION DETAILED DRAWING



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Molex Mini-fit jnr HCS	
1,2,5,6	-ve (cathode)
3,4,7,8	+ve (anode)

FIBER COUPLING OPTION[7]

Connector	SMA-905
Fiber Diameter	400µm
Fiber NA	0.22

[7] Fiber coupling standards are shown. Custom configurations are available.

Form No. S-NecselYellow577/0218

801 Ames Avenue, Milpitas, CA 95035 | Tel: +1.408.940.0751 | necselsales@ushio.com | www.necsel.com