

Datasheet for #sbcw25634 DN

Recommendations:

Please read the User Manual and have a look at the FAQ at <https://www.alpeslasers.ch/resources/#faq>

WARNING: Operating the laser with higher current or voltage than specified in this document may cause damage and will result in loss of warranty, unless Alpes Lasers has permitted to do so!

WARNING: Beware of the polarity of the laser. This laser has to be powered with negative bias and positive bias on the specific zones drawn below. To be used with a high compliance CW laser driver capable of reaching the operating current and voltage indicated in this datasheet, or up to 2.5A/20V.



Figure 1: Mechanical and electrical interface for #sbcw25634 DN (please note that AlN submount numbering is A0VV6)

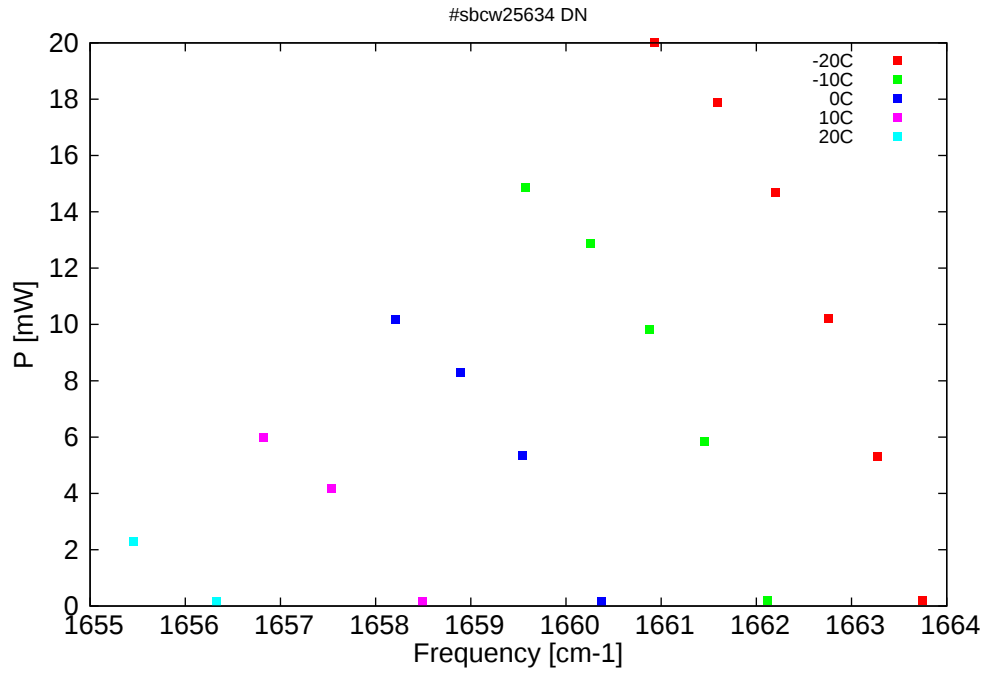


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

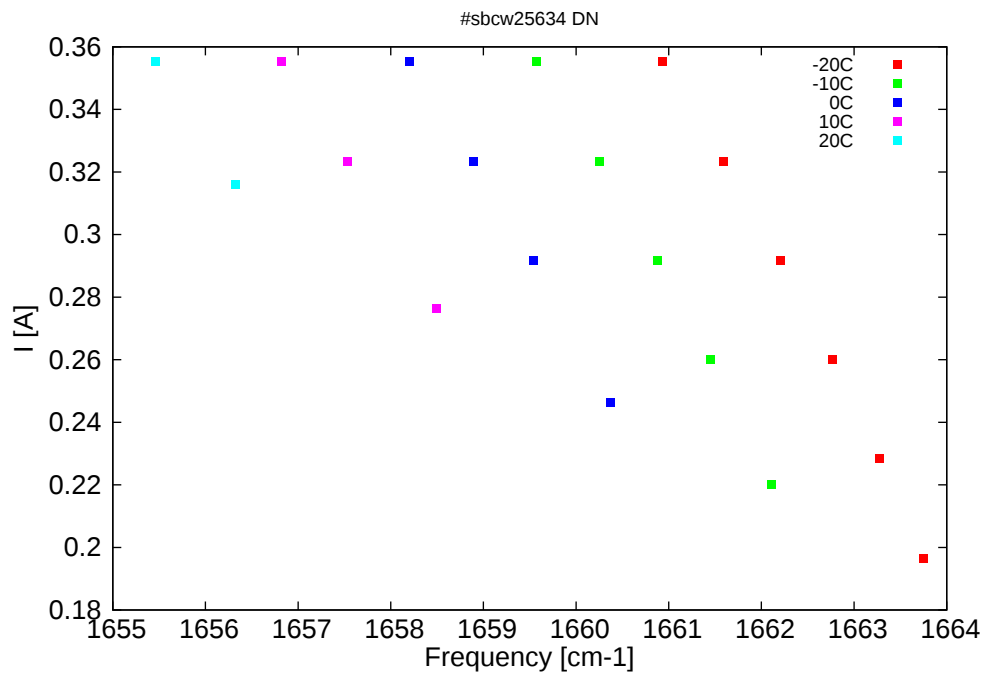


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
6010.5	1663.7	0.2	-20	10.09	0.197
6012.2	1663.3	5.3	-20	10.38	0.228
6014.1	1662.8	10.2	-20	10.69	0.26
6016.1	1662.2	14.7	-20	10.99	0.292
6018.3	1661.6	17.9	-20	11.3	0.324
6020.7	1660.9	20	-20	11.62	0.355
6016.4	1662.1	0.2	-10	10.22	0.22
6018.8	1661.5	5.9	-10	10.6	0.26
6020.9	1660.9	9.8	-10	10.9	0.292
6023.2	1660.3	12.9	-10	11.21	0.324
6025.6	1659.6	14.9	-10	11.53	0.355
6022.8	1660.4	0.2	0	10.38	0.246
6025.8	1659.5	5.3	0	10.82	0.292
6028.1	1658.9	8.3	0	11.13	0.324
6030.6	1658.2	10.2	0	11.45	0.355
6029.6	1658.5	0.1	10	10.59	0.277
6033.1	1657.5	4.2	10	11.05	0.324
6035.6	1656.8	6	10	11.37	0.355
6037.5	1656.3	0.2	20	10.9	0.316
6040.6	1655.5	2.3	20	11.3	0.355

Table 1: Singlemode optical output power as function of operating parameters.

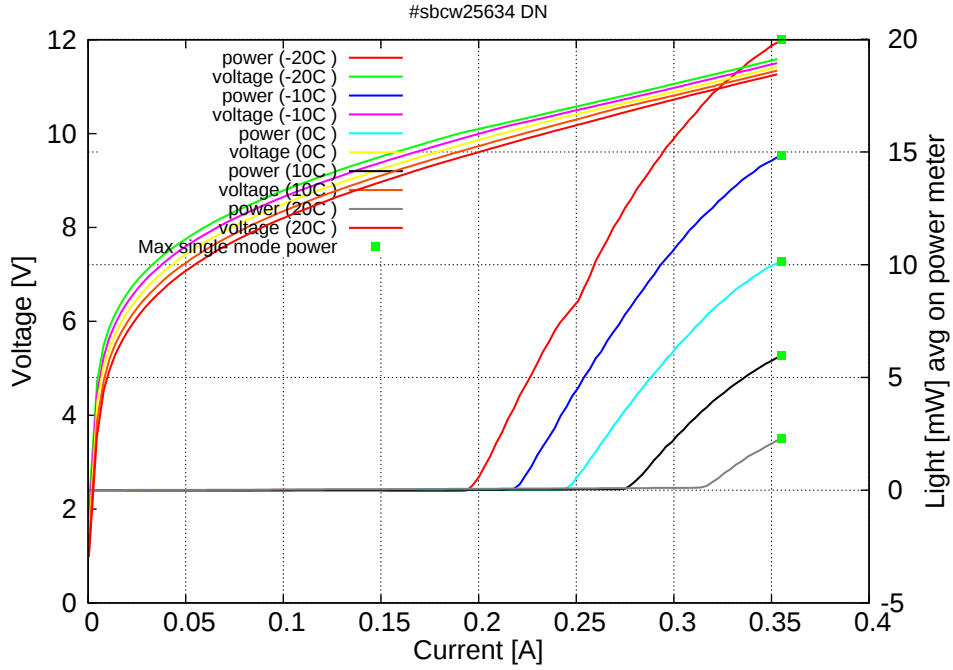


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.19A$ / $V_{th}=10.0V$ (2-wires measurements). Maximum operation current: 0.355A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

