

Datasheet for #sbcw26878 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.

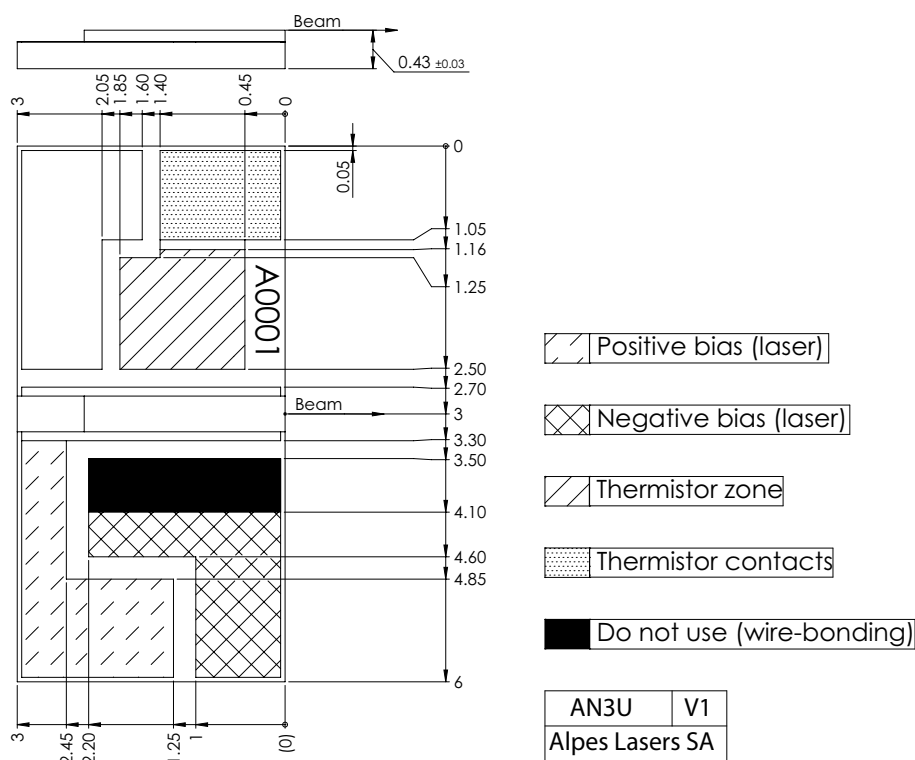


Figure 1: Mechanical and electrical interface for #sbcw26878 DN (please note that AlN submount numbering is A0U5L)

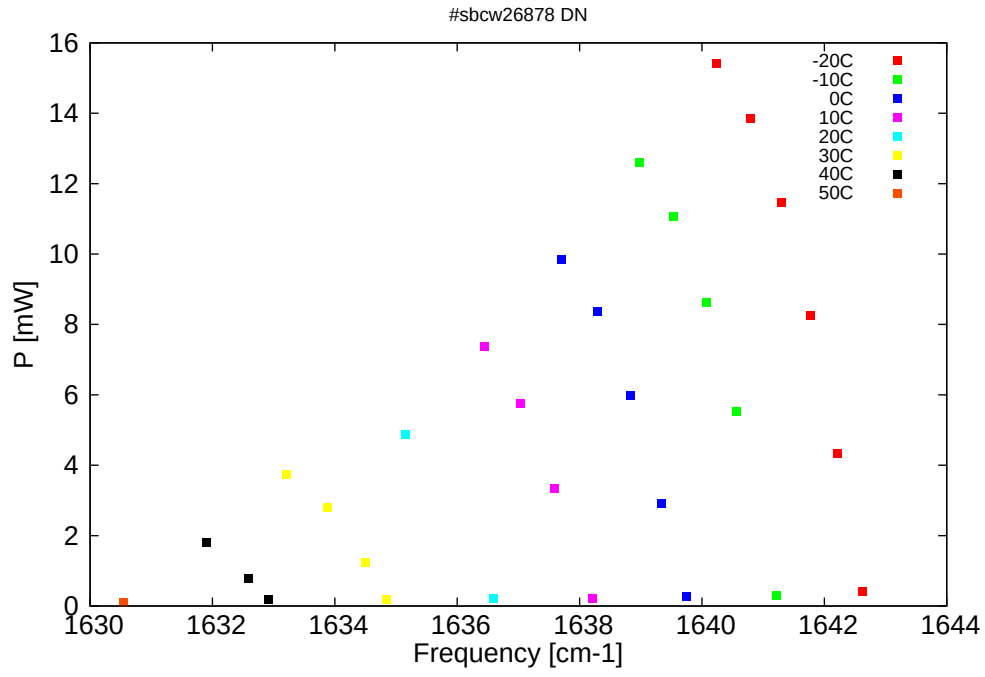


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

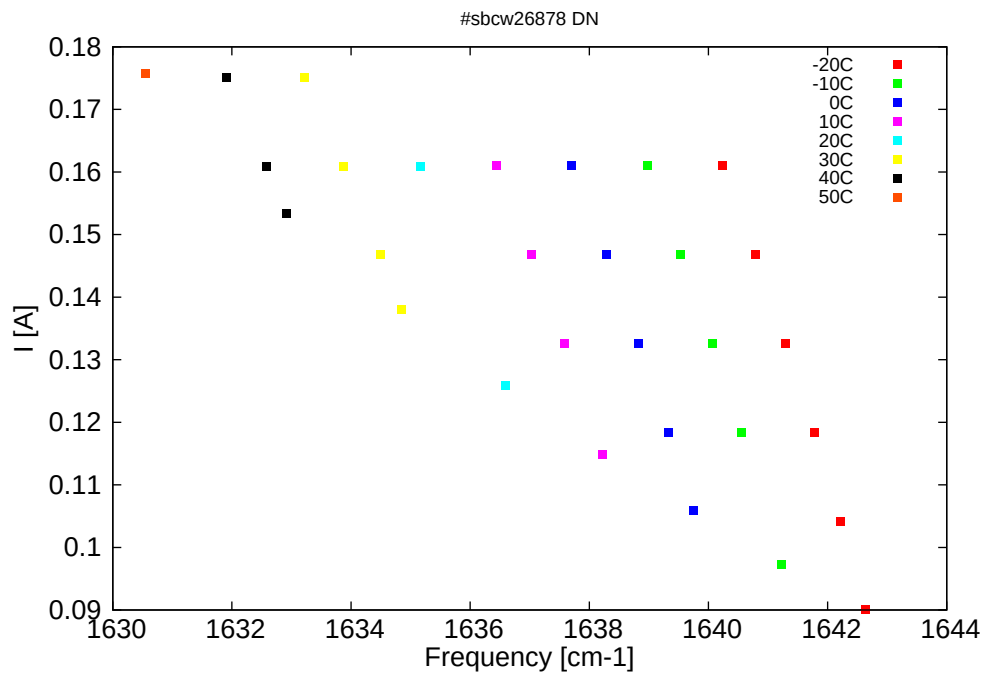


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
6087.8	1642.6	0.4	-20	10.42	0.09
6089.3	1642.2	4.3	-20	10.75	0.104
6091	1641.8	8.2	-20	11.07	0.118
6092.7	1641.3	11.5	-20	11.39	0.133
6094.6	1640.8	13.8	-20	11.72	0.147
6096.7	1640.2	15.4	-20	12.05	0.161
6093	1641.2	0.3	-10	10.49	0.097
6095.5	1640.6	5.5	-10	10.97	0.118
6097.3	1640.1	8.6	-10	11.29	0.133
6099.3	1639.5	11.1	-10	11.6	0.147
6101.4	1639	12.6	-10	11.93	0.161
6098.5	1639.7	0.3	0	10.56	0.106
6100	1639.3	2.9	0	10.84	0.118
6101.9	1638.8	6	0	11.16	0.133
6103.9	1638.3	8.4	0	11.48	0.147
6106.1	1637.7	9.8	0	11.81	0.161
6104.2	1638.2	0.2	10	10.66	0.115
6106.5	1637.6	3.3	10	11.06	0.133
6108.6	1637	5.7	10	11.38	0.147
6110.8	1636.4	7.4	10	11.71	0.161
6110.3	1636.6	0.2	20	10.82	0.126
6115.6	1635.2	4.9	20	11.61	0.161
6116.8	1634.8	0.2	30	11.05	0.138
6118.1	1634.5	1.2	30	11.24	0.147
6120.4	1633.9	2.8	30	11.55	0.161
6122.9	1633.2	3.7	30	11.86	0.175
6124	1632.9	0.2	40	11.23	0.153
6125.3	1632.6	0.8	40	11.4	0.161
6127.8	1631.9	1.8	40	11.72	0.175
6132.9	1630.6	0.1	50	11.61	0.176

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

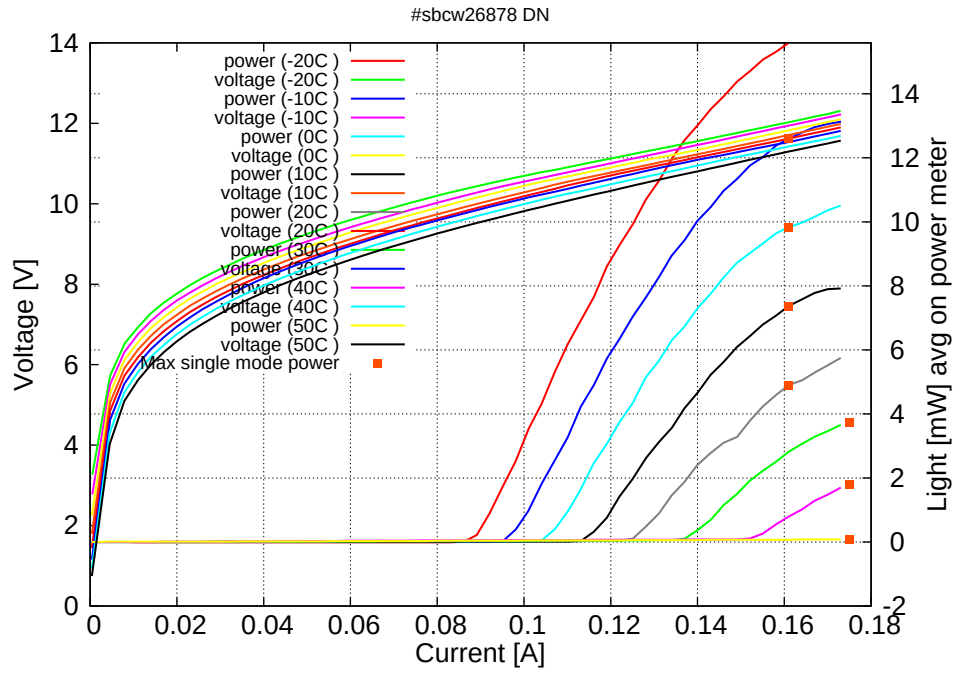


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.09A$ / $V_{th}=10.4V$ (2-wires measurements). Maximum operation current: 0.16A between -20C and 20C, 0.175A between 30C and 50C.

Figure 3: spectra at different temperatures for various DC currents

