

Datasheet for #sbcw24880 DN

Recommendations:

Please read the User Manual and have a look at the FAQ at <http://www.alpeslasers.ch/?a=142>

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 #sbcw24880 DN (please note that AlN submount numbering is A1202)

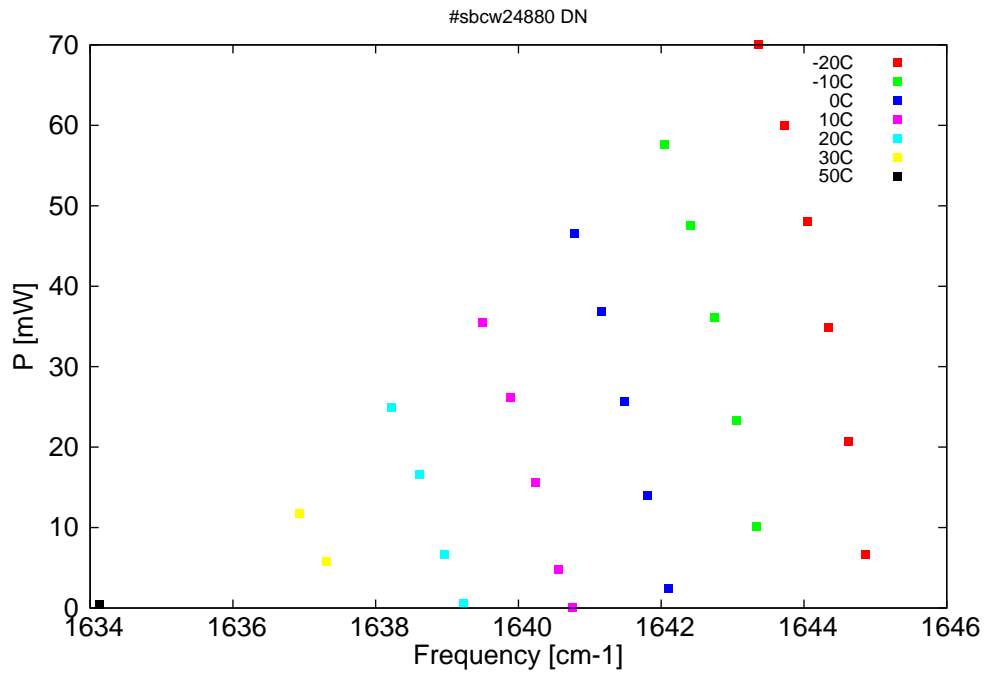


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

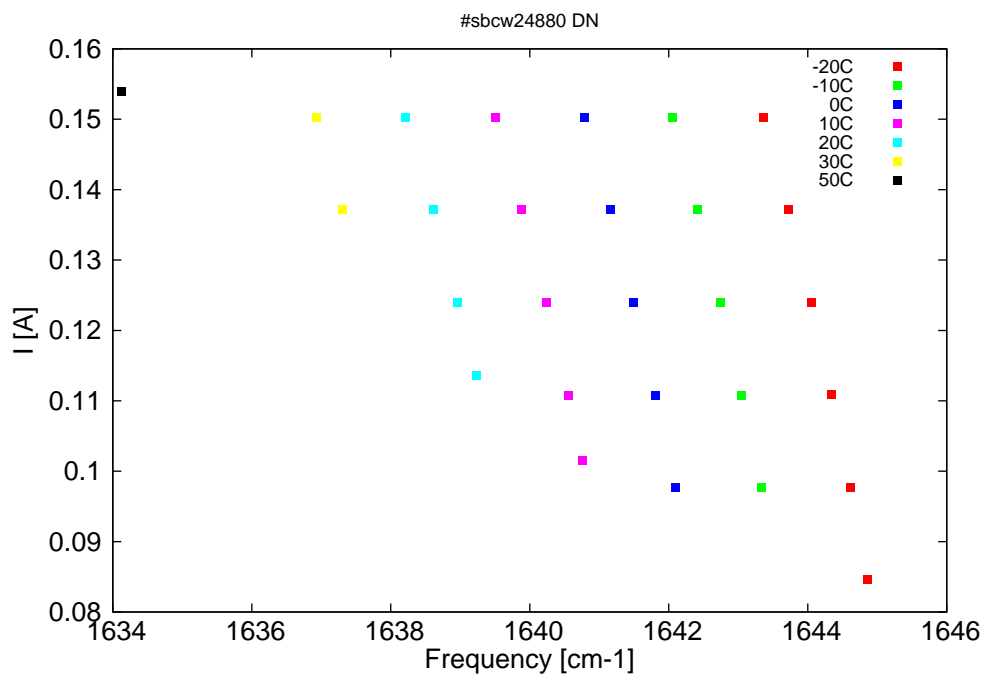


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
6079.5	1644.9	6.7	-20	9.52	0.085
6080.4	1644.6	20.7	-20	9.78	0.098
6081.4	1644.3	34.9	-20	10.03	0.111
6082.5	1644.1	48	-20	10.27	0.124
6083.7	1643.7	59.9	-20	10.52	0.137
6085.1	1643.4	70	-20	10.78	0.15
6085.2	1643.3	10.1	-10	9.72	0.098
6086.2	1643.1	23.4	-10	9.97	0.111
6087.4	1642.7	36.1	-10	10.21	0.124
6088.6	1642.4	47.6	-10	10.47	0.137
6089.9	1642.1	57.6	-10	10.73	0.15
6089.8	1642.1	2.4	0	9.63	0.098
6090.9	1641.8	14	0	9.88	0.111
6092	1641.5	25.7	0	10.12	0.124
6093.2	1641.2	36.9	0	10.34	0.137
6094.6	1640.8	46.5	0	10.63	0.15
6094.7	1640.8	0.1	10	9.65	0.102
6095.5	1640.6	4.7	10	9.82	0.111
6096.7	1640.2	15.6	10	10.06	0.124
6098	1639.9	26.2	10	10.31	0.137
6099.4	1639.5	35.5	10	10.57	0.15
6100.4	1639.2	0.6	20	9.81	0.114
6101.4	1639	6.7	20	10	0.124
6102.7	1638.6	16.6	20	10.24	0.137
6104.2	1638.2	24.9	20	10.5	0.15
6107.6	1637.3	5.7	30	10.17	0.137
6109	1636.9	11.8	30	10.42	0.15
6119.5	1634.1	0.5	50	10.42	0.154

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

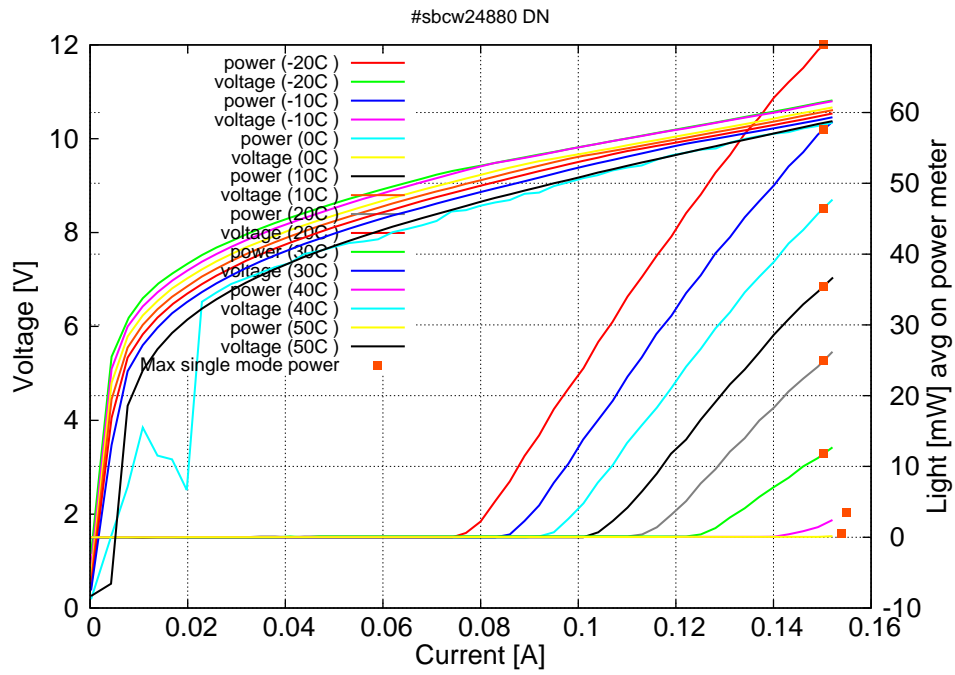


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.08A$ / $V_{th}=9.3V$ (2-wires measurements). Maximum operation current: 0.155A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

