

Datasheet for #sbcw25881 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.

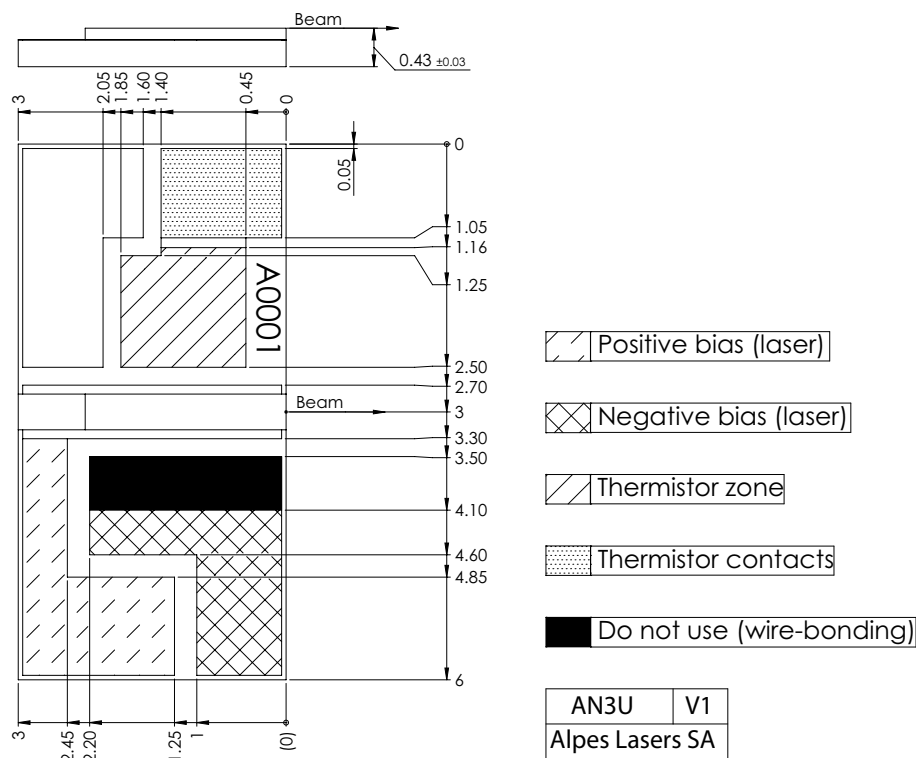


Figure 1: Mechanical and electrical interface for #sbcw25881 DN (please note that AlN submount numbering is A0VZ2)

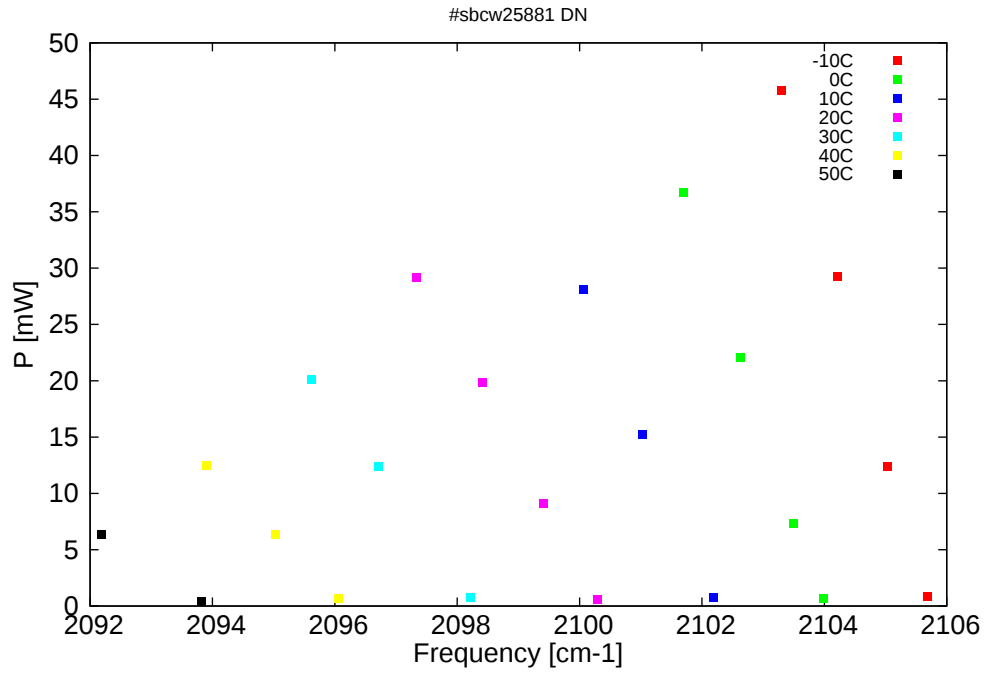


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

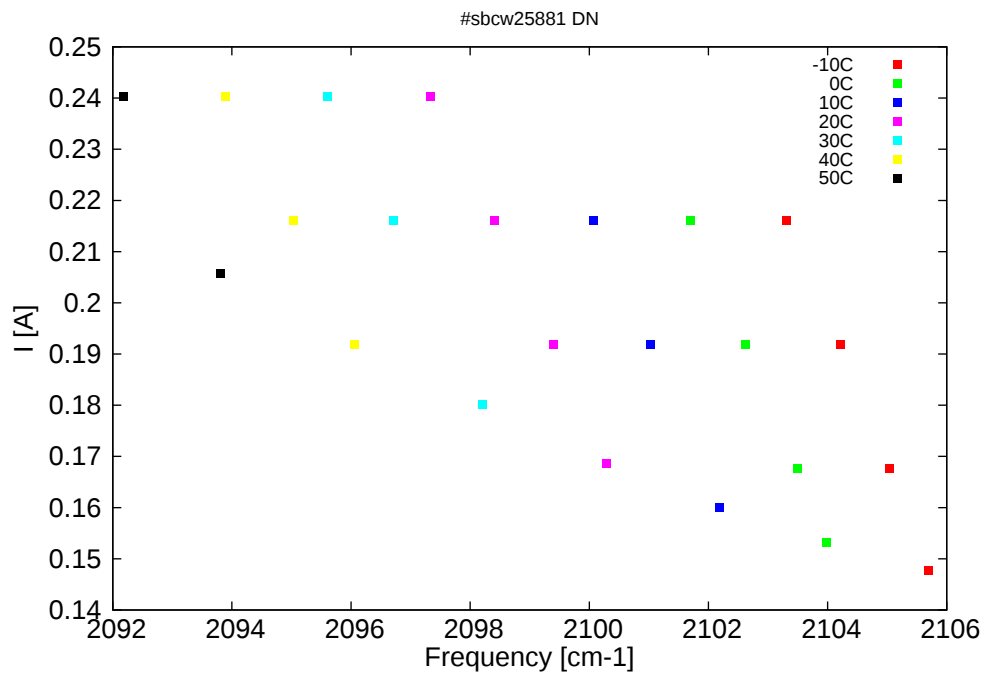


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4749	2105.7	0.8	-10	12.03	0.148
4750.5	2105	12.4	-10	12.21	0.168
4752.4	2104.2	29.3	-10	12.48	0.192
4754.4	2103.3	45.8	-10	12.76	0.216
4752.9	2104	0.7	0	11.95	0.153
4754	2103.5	7.3	0	12.09	0.168
4756	2102.6	22.1	0	12.35	0.192
4758	2101.7	36.7	0	12.63	0.216
4756.9	2102.2	0.8	10	11.91	0.16
4759.6	2101	15.2	10	12.23	0.192
4761.7	2100.1	28.1	10	12.51	0.216
4761.3	2100.3	0.6	20	11.89	0.169
4763.3	2099.4	9.1	20	12.11	0.192
4765.5	2098.4	19.9	20	12.4	0.216
4768	2097.3	29.1	20	12.69	0.24
4766	2098.2	0.8	30	11.9	0.18
4769.4	2096.7	12.4	30	12.29	0.216
4771.9	2095.6	20.1	30	12.58	0.24
4770.9	2096.1	0.6	40	11.93	0.192
4773.2	2095	6.4	40	12.18	0.216
4775.8	2093.9	12.5	40	12.47	0.24
4776	2093.8	0.4	50	11.98	0.206
4779.7	2092.2	6.3	50	12.36	0.24

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

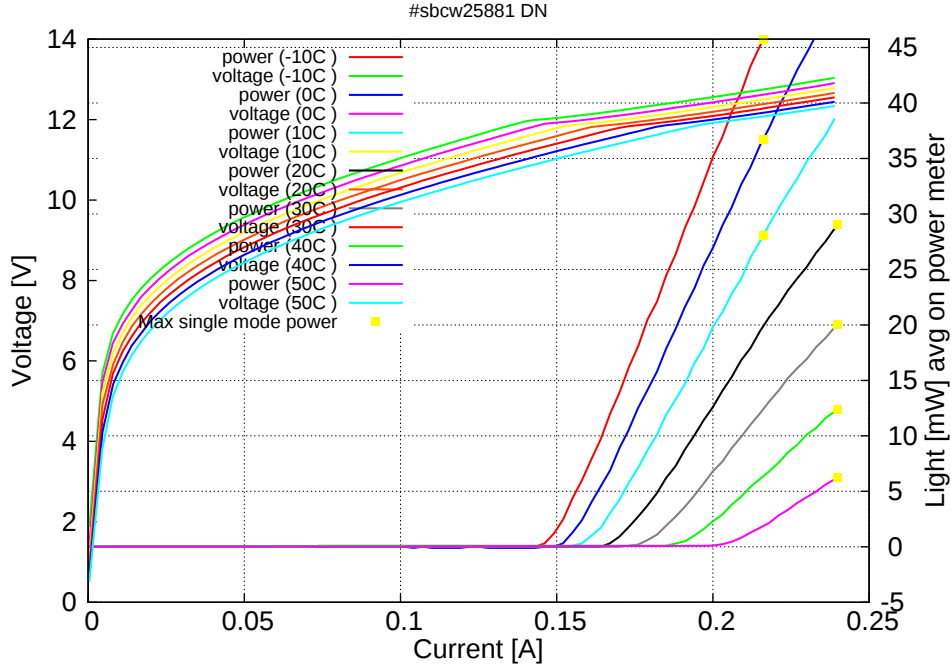


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -10C: $I_{th}=0.15A$ / $V_{th}=12.0V$ (2-wires measurements). Maximum operation current: 0.22A between -10C and 10C, 0.24A between 20C and 50C.

Figure 3: spectra at different temperatures for various DC currents

