

Datasheet for #sbcw26135 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.

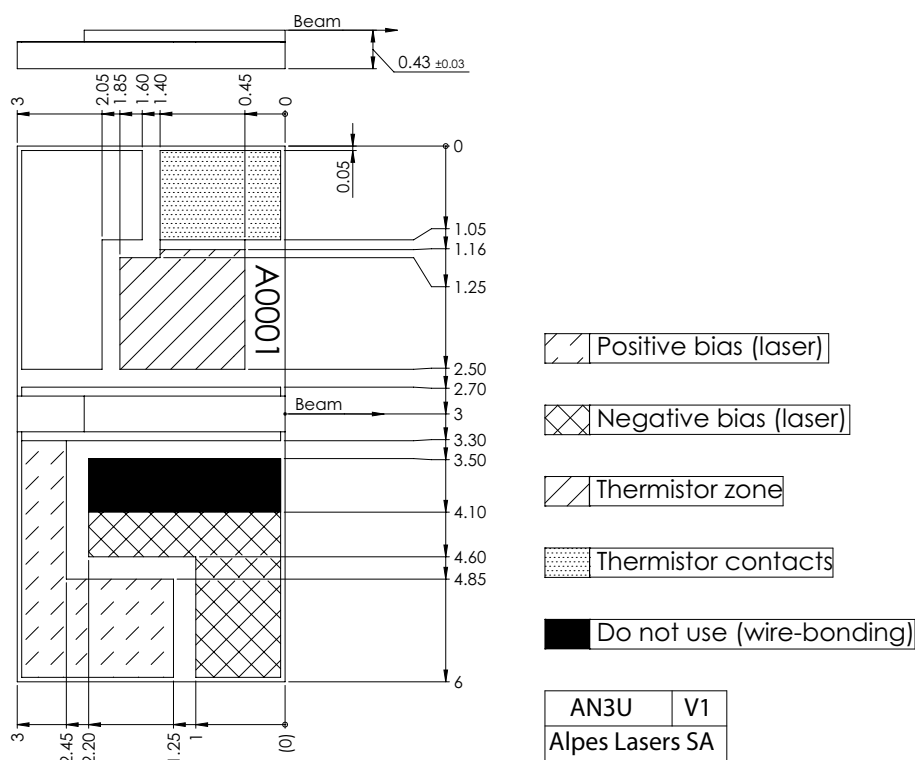


Figure 1: Mechanical and electrical interface for #sbcw26135 DN (please note that AlN submount numbering is A0U3F)

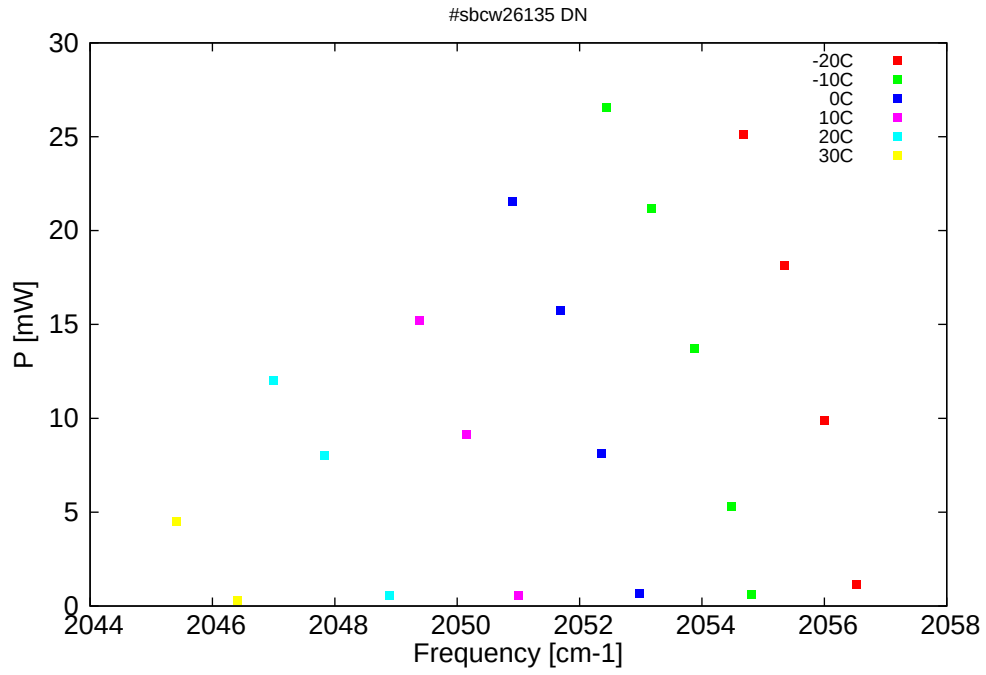


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

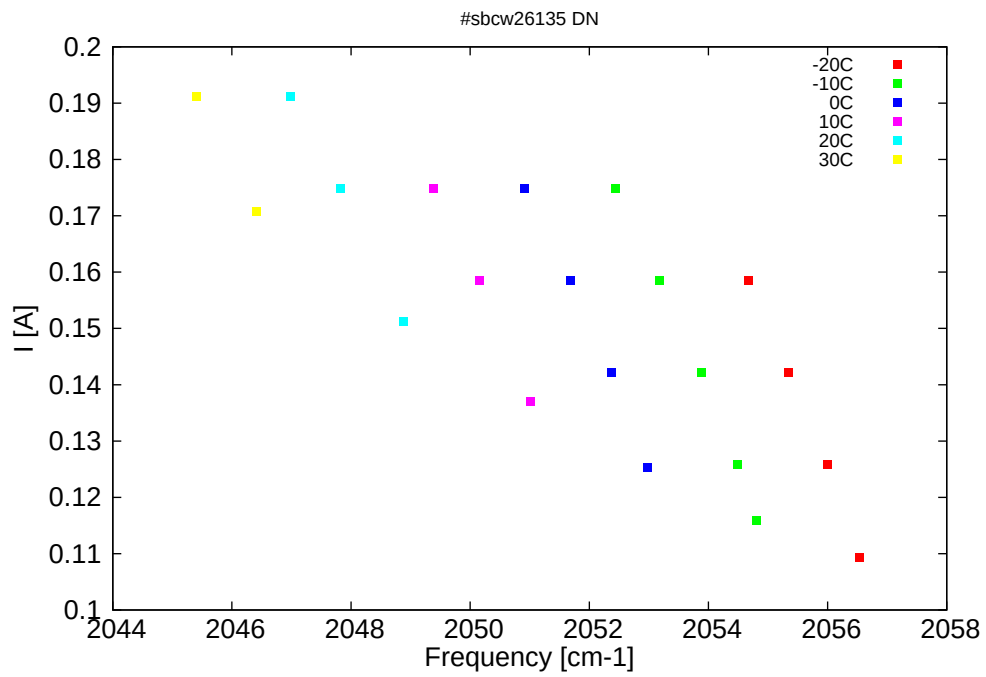


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4862.6	2056.5	1.1	-20	12.97	0.109
4863.8	2056	9.9	-20	13.38	0.126
4865.4	2055.3	18.1	-20	13.8	0.142
4867	2054.7	25.1	-20	14.27	0.159
4866.6	2054.8	0.6	-10	12.89	0.116
4867.4	2054.5	5.3	-10	13.12	0.126
4868.8	2053.9	13.7	-10	13.53	0.142
4870.5	2053.2	21.2	-10	13.96	0.159
4872.3	2052.4	26.6	-10	14.43	0.175
4871	2053	0.7	0	12.92	0.125
4872.4	2052.4	8.1	0	13.3	0.142
4874	2051.7	15.7	0	13.71	0.159
4875.9	2050.9	21.6	0	14.16	0.175
4875.7	2051	0.6	10	13.02	0.137
4877.7	2050.2	9.1	10	13.51	0.159
4879.5	2049.4	15.2	10	13.92	0.175
4880.7	2048.9	0.6	20	13.17	0.151
4883.2	2047.8	8	20	13.7	0.175
4885.2	2047	12	20	14.11	0.191
4886.6	2046.4	0.3	30	13.46	0.171
4889	2045.4	4.5	30	13.92	0.191

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

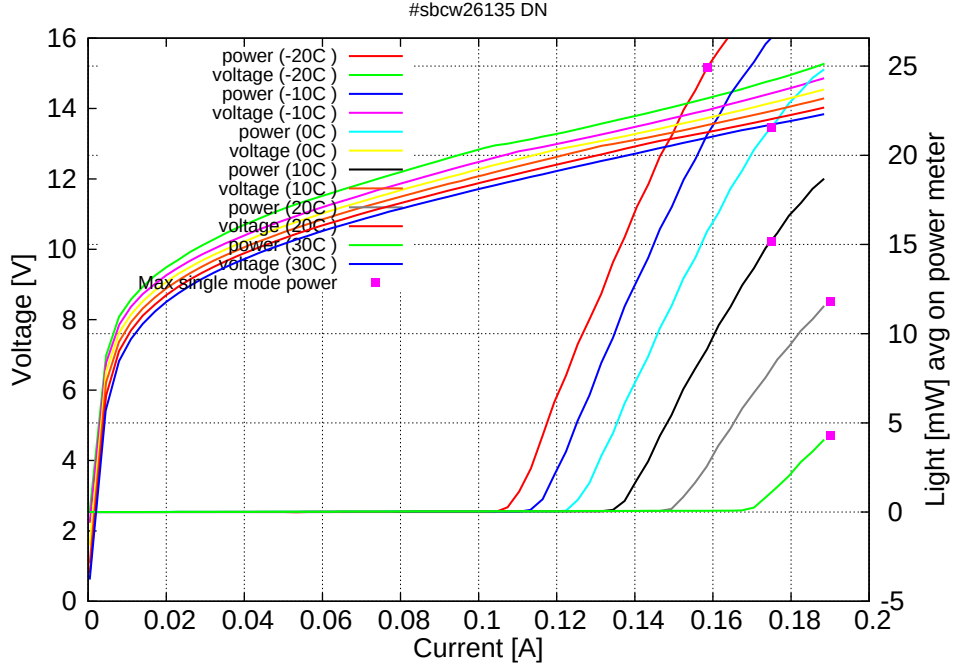


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.11A$ / $V_{th}=13.1V$ (2-wires measurements). Maximum operation

current: 0.16A at -20C, 0.175A between -10C and 10C, 0.19A between 20C and 30C.

Figure 3: spectra at different temperatures for various DC currents

