

Datasheet for #sbcw26501 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.

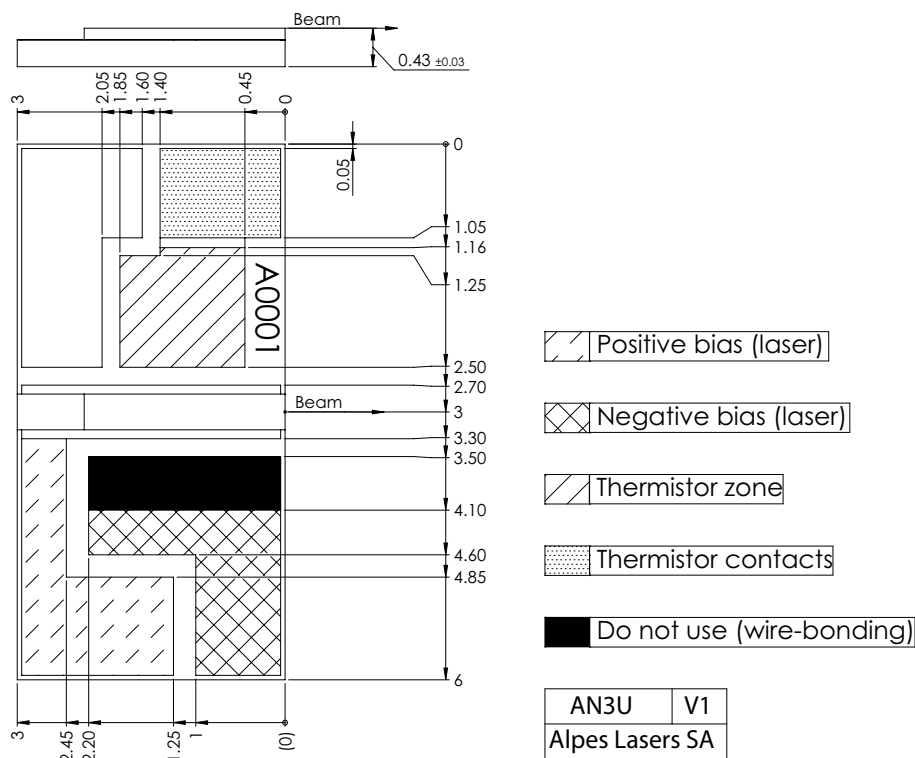


Figure 1: Mechanical and electrical interface for #sbcw26501 DN (please note that AlN submount numbering is A0V89)

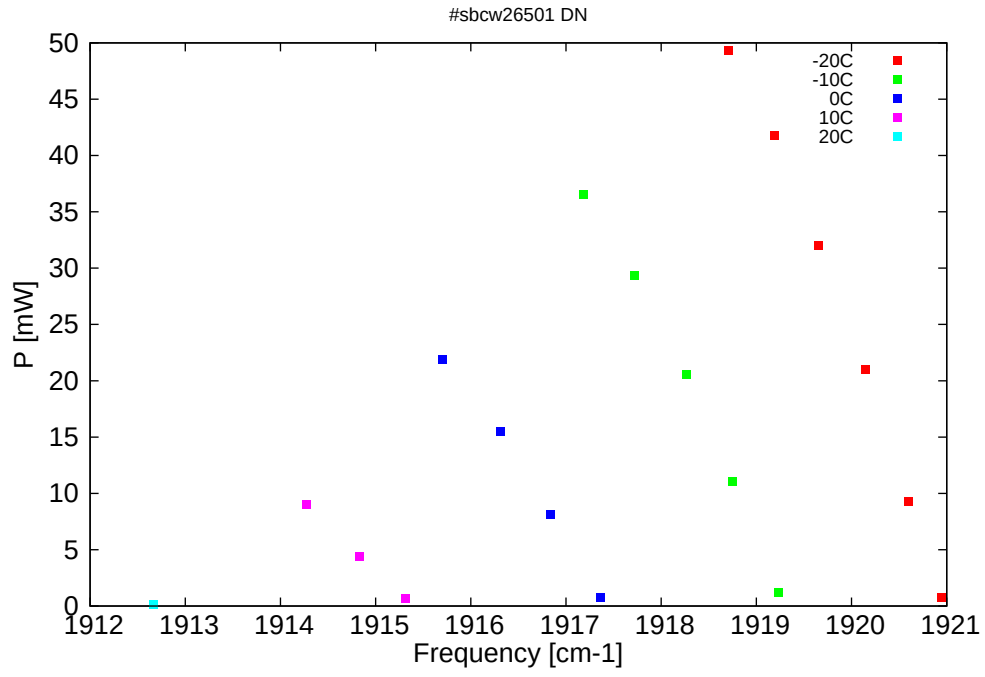


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

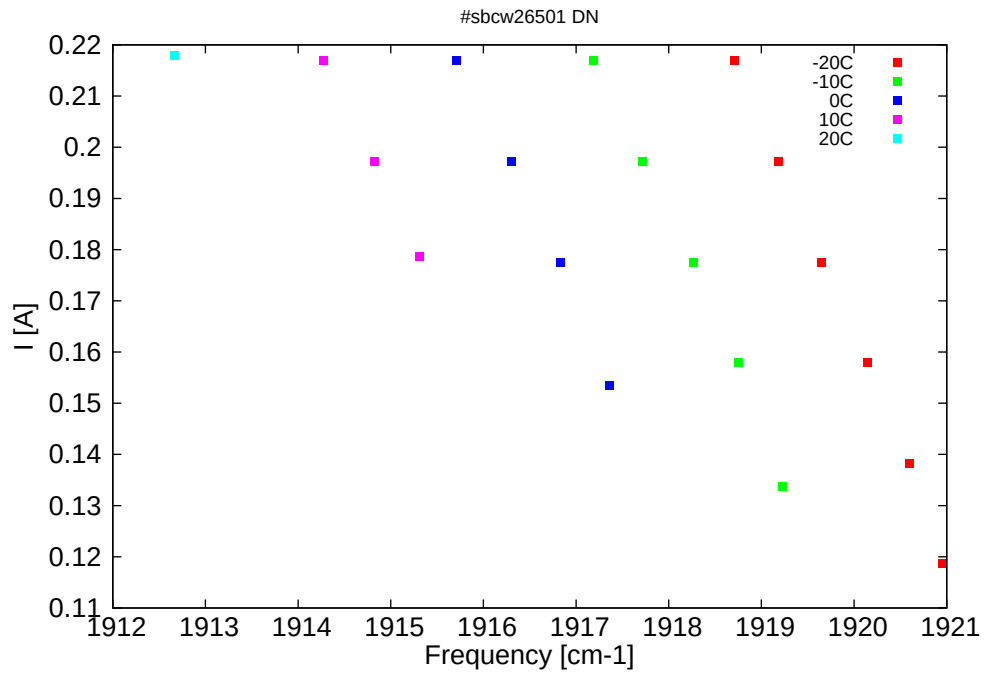


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5205.8	1921	0.8	-20	8.92	0.119
5206.7	1920.6	9.3	-20	9.16	0.138
5207.9	1920.1	21	-20	9.44	0.158
5209.3	1919.7	32	-20	9.72	0.178
5210.5	1919.2	41.7	-20	10.01	0.197
5211.8	1918.7	49.4	-20	10.31	0.217
5210.4	1919.2	1.2	-10	9.01	0.134
5211.7	1918.7	11	-10	9.32	0.158
5213	1918.3	20.6	-10	9.59	0.178
5214.5	1917.7	29.3	-10	9.87	0.197
5216	1917.2	36.6	-10	10.16	0.217
5215.5	1917.4	0.8	0	9.17	0.153
5216.9	1916.8	8.1	0	9.47	0.178
5218.4	1916.3	15.5	0	9.74	0.197
5220	1915.7	21.9	0	10.03	0.217
5221.1	1915.3	0.6	10	9.42	0.179
5222.4	1914.8	4.4	10	9.65	0.197
5223.9	1914.3	9.1	10	9.91	0.217
5228.3	1912.7	0.2	20	9.86	0.218

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

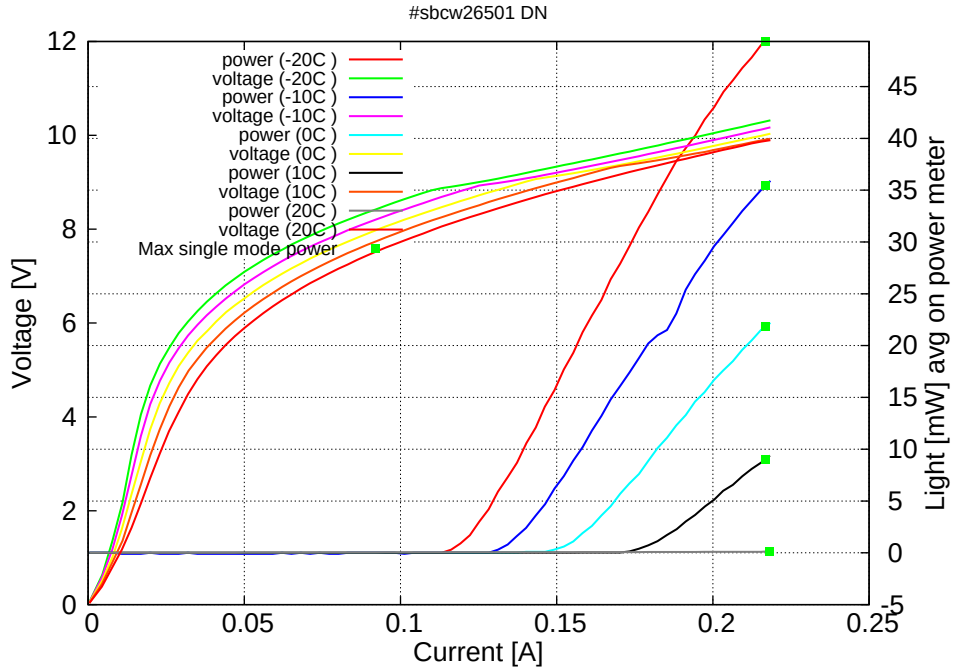


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20°C: $I_{th}=0.12A$ / $V_{th}=8.9V$ (2-wires measurements). Maximum operation current: 0.22A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

