

Datasheet for #sbcw26486 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.

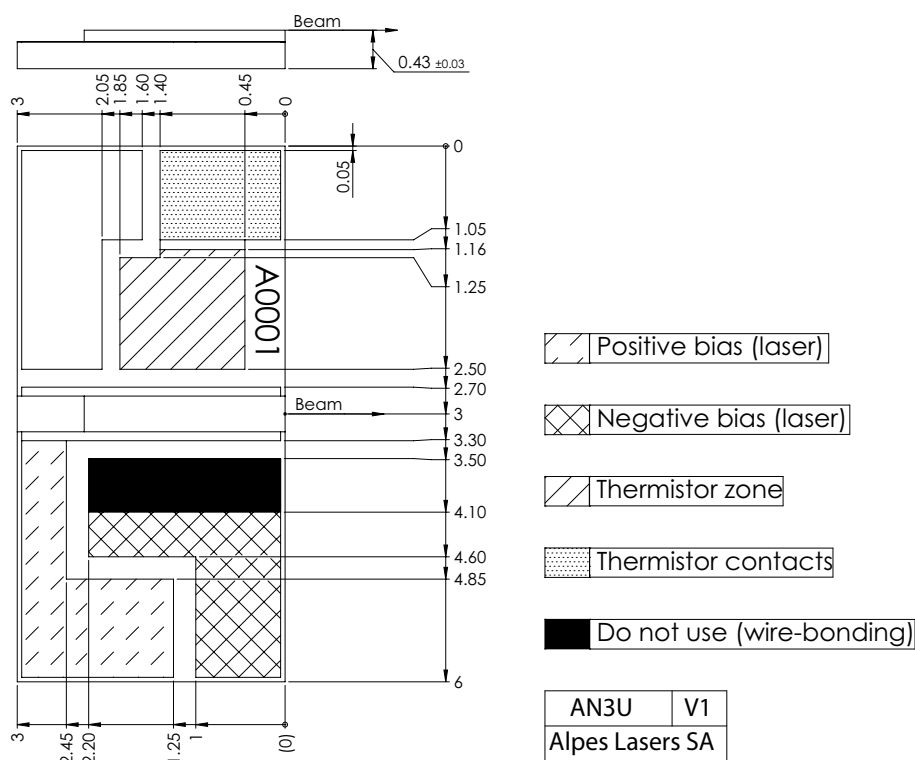


Figure 1: Mechanical and electrical interface for #sbcw26486 DN (please note that AlN submount numbering is A0V0L)

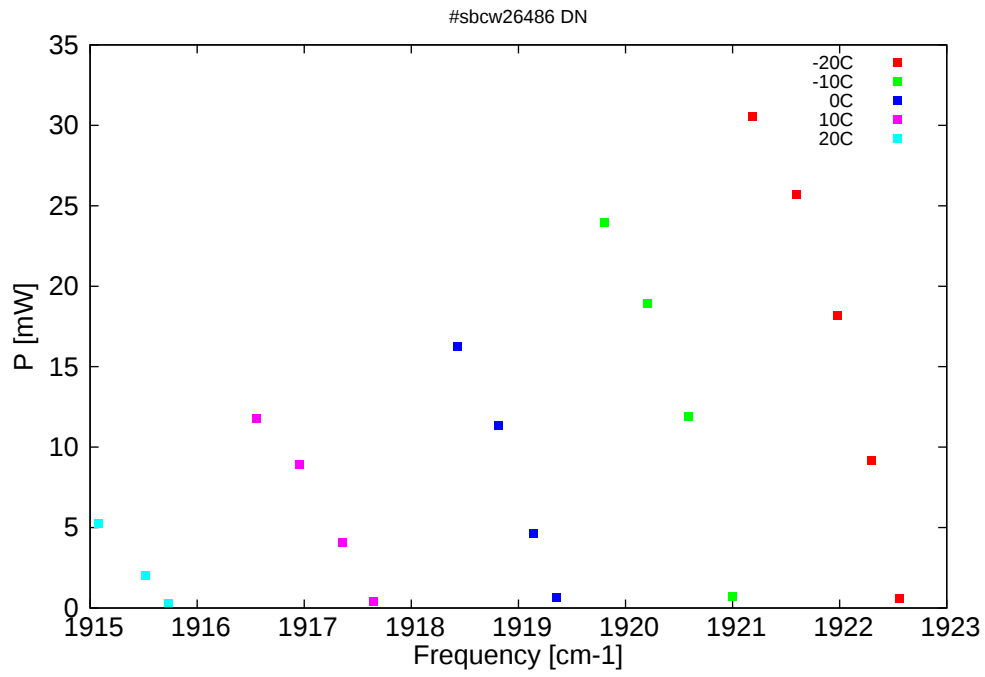


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

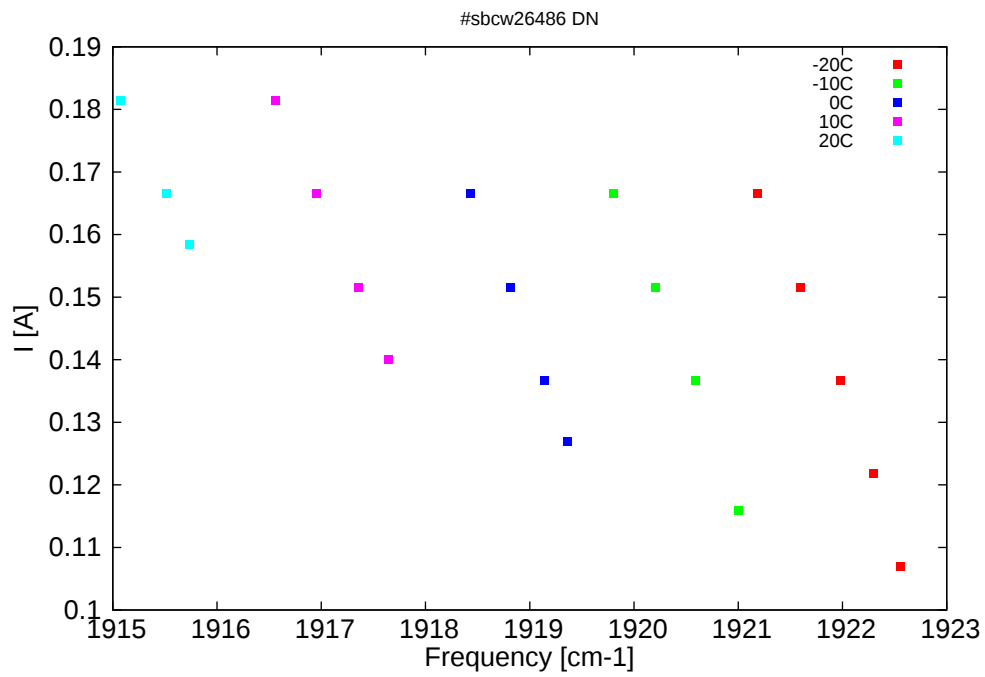


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5201.4	1922.6	0.6	-20	8.46	0.107
5202.1	1922.3	9.1	-20	8.68	0.122
5203	1922	18.2	-20	8.91	0.137
5204	1921.6	25.7	-20	9.18	0.152
5205.1	1921.2	30.5	-20	9.47	0.167
5205.6	1921	0.7	-10	8.53	0.116
5206.7	1920.6	11.9	-10	8.85	0.137
5207.8	1920.2	18.9	-10	9.09	0.152
5208.9	1919.8	24	-10	9.37	0.167
5210.1	1919.4	0.7	0	8.64	0.127
5210.7	1919.1	4.7	0	8.78	0.137
5211.6	1918.8	11.3	0	9.02	0.152
5212.6	1918.4	16.3	0	9.28	0.167
5214.7	1917.6	0.4	10	8.79	0.14
5215.5	1917.4	4.1	10	8.96	0.152
5216.6	1917	8.9	10	9.21	0.167
5217.7	1916.6	11.8	10	9.47	0.181
5219.9	1915.7	0.3	20	9.01	0.158
5220.5	1915.5	2	20	9.13	0.167
5221.7	1915.1	5.3	20	9.38	0.181

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

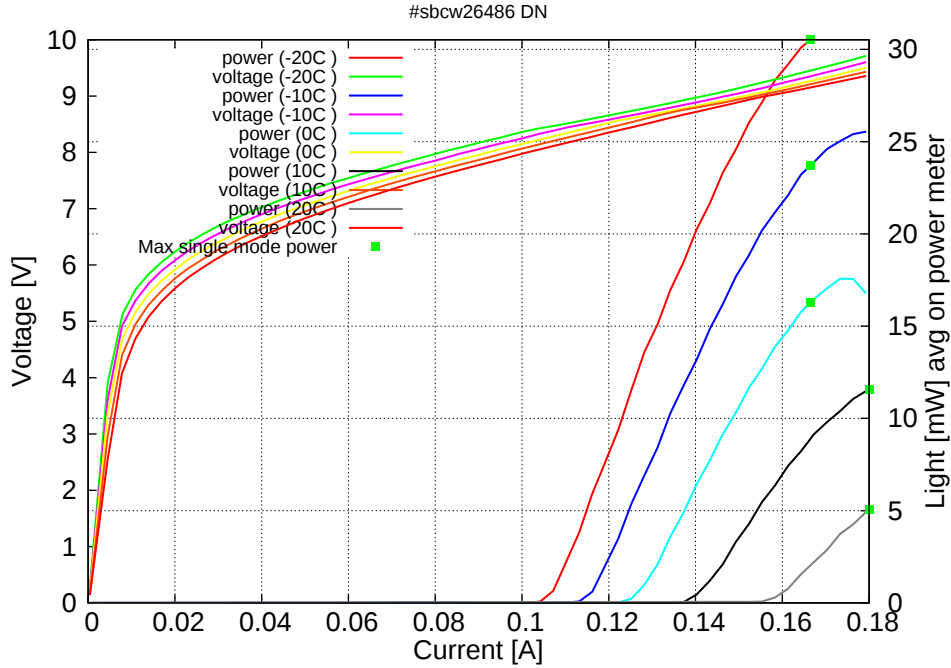


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.10A$ / $V_{th}=8.4V$ (2-wires measurements). Maximum operation current: 0.17A between -20C and 0C, 0.18A between 10C and 20C.

Figure 3: spectra at different temperatures for various DC currents

