

Datasheet for #sbcw26488 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.

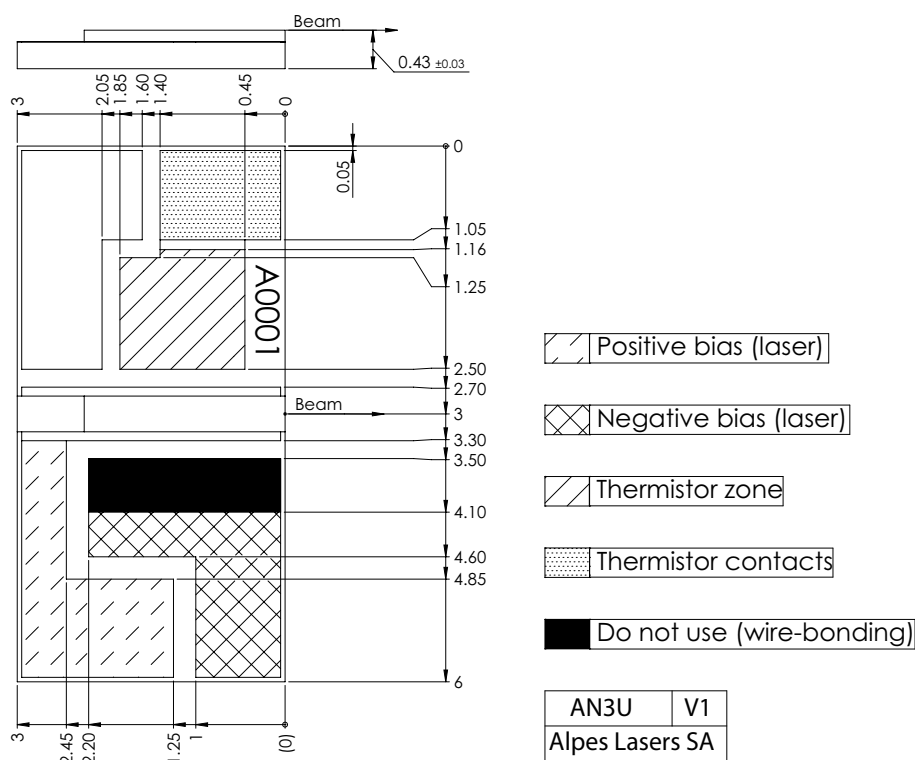


Figure 1: Mechanical and electrical interface for #sbcw26488 DN (please note that AlN submount numbering is A0UZ9)

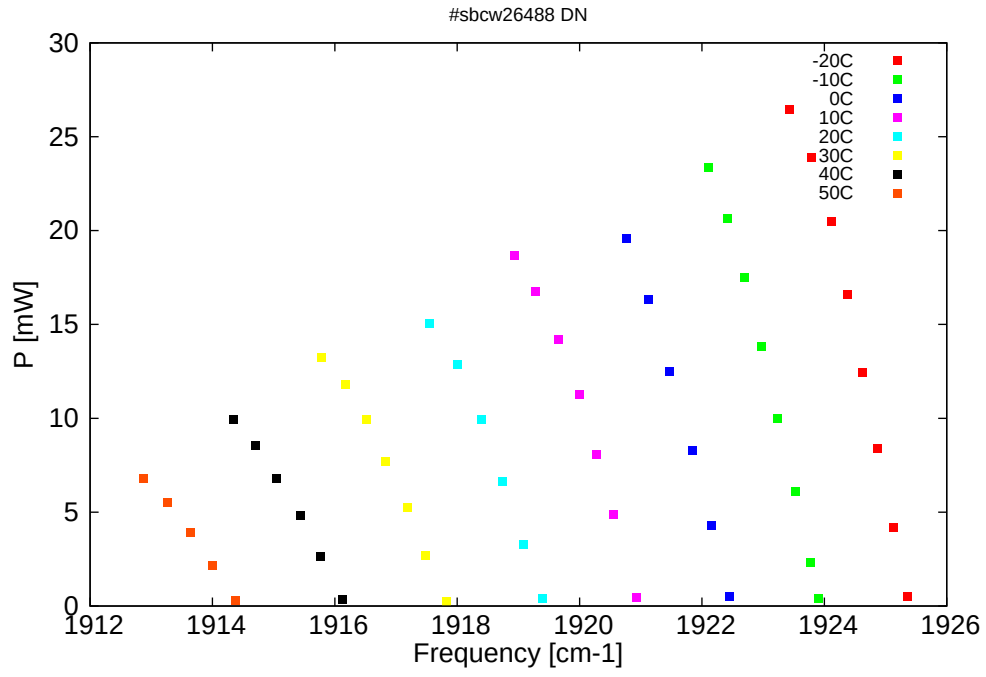


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

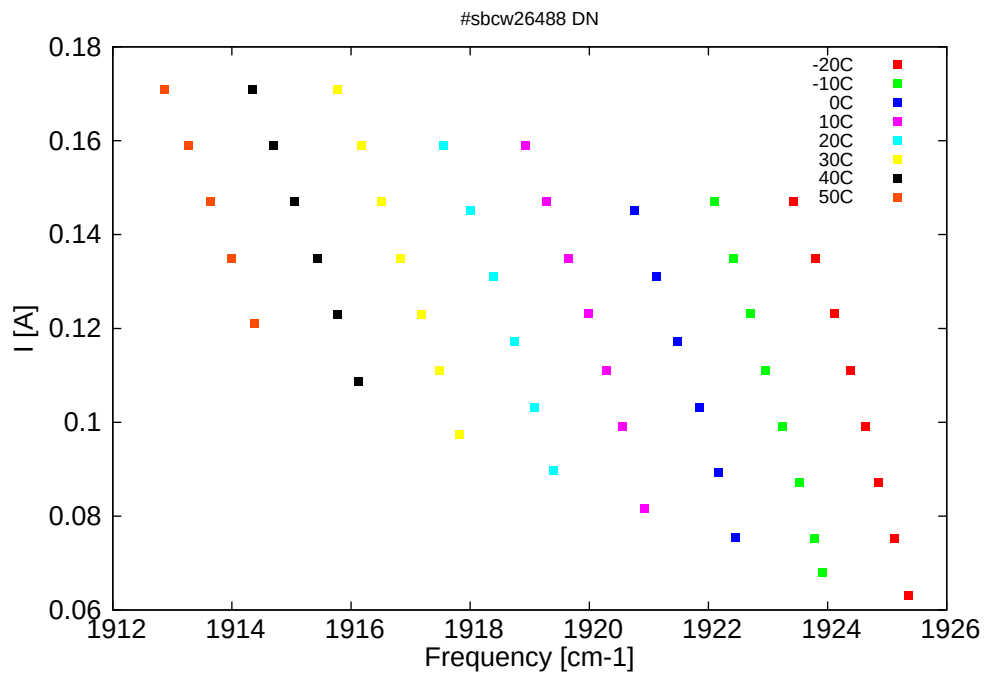


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
5193.9	1925.4	0.5	-20	7.9	0.063
5194.5	1925.1	4.2	-20	8.11	0.075
5195.2	1924.9	8.4	-20	8.32	0.087
5195.8	1924.6	12.5	-20	8.53	0.099
5196.5	1924.4	16.6	-20	8.74	0.111
5197.2	1924.1	20.5	-20	8.97	0.123
5198.1	1923.8	23.9	-20	9.22	0.135
5199	1923.4	26.5	-20	9.48	0.147
5197.7	1923.9	0.4	-10	7.92	0.068
5198.1	1923.8	2.3	-10	8.05	0.075
5198.8	1923.5	6.1	-10	8.25	0.087
5199.6	1923.2	10	-10	8.46	0.099
5200.3	1923	13.8	-10	8.68	0.111
5201	1922.7	17.5	-10	8.89	0.123
5201.8	1922.4	20.6	-10	9.12	0.135
5202.6	1922.1	23.4	-10	9.37	0.147
5201.7	1922.5	0.5	0	7.98	0.075
5202.5	1922.2	4.3	0	8.22	0.089
5203.3	1921.8	8.3	0	8.46	0.103
5204.3	1921.5	12.5	0	8.7	0.117
5205.3	1921.1	16.4	0	8.96	0.131
5206.3	1920.8	19.6	0	9.23	0.145
5205.8	1920.9	0.5	10	8.03	0.082
5206.8	1920.5	4.9	10	8.32	0.099
5207.6	1920.3	8.1	10	8.52	0.111
5208.4	1920	11.3	10	8.73	0.123
5209.3	1919.6	14.2	10	8.94	0.135
5210.3	1919.3	16.8	10	9.16	0.147
5211.2	1918.9	18.7	10	9.39	0.159
5210	1919.4	0.4	20	8.1	0.09
5210.8	1919.1	3.3	20	8.31	0.103
5211.8	1918.7	6.7	20	8.55	0.117
5212.7	1918.4	10	20	8.79	0.131
5213.7	1918	12.9	20	9.03	0.145
5215	1917.6	15.1	20	9.29	0.159
5214.3	1917.8	0.2	30	8.16	0.098
5215.2	1917.5	2.7	30	8.37	0.111
5216	1917.2	5.2	30	8.57	0.123
5216.9	1916.8	7.7	30	8.77	0.135
5217.8	1916.5	10	30	8.97	0.147
5218.7	1916.2	11.8	30	9.18	0.159
5219.8	1915.8	13.2	30	9.39	0.171
5218.9	1916.1	0.3	40	8.27	0.109
5219.8	1915.8	2.6	40	8.49	0.123
5220.8	1915.4	4.8	40	8.69	0.135
5221.8	1915	6.8	40	8.88	0.147
5222.7	1914.7	8.6	40	9.07	0.159
5223.7	1914.3	9.9	40	9.26	0.171
5223.6	1914.4	0.3	50	8.37	0.121

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λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5224.7	1914	2.2	50	8.58	0.135
5225.6	1913.6	3.9	50	8.76	0.147
5226.7	1913.3	5.5	50	8.95	0.159
5227.7	1912.9	6.8	50	9.14	0.171

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

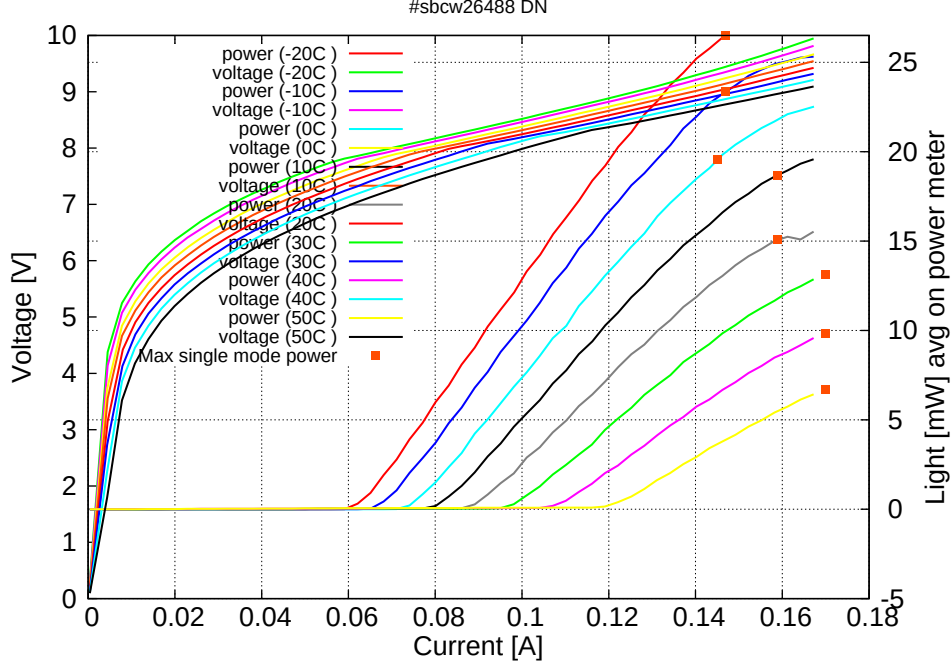


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.06A$ / $V_{th}=7.9V$ (2-wires measurements). Maximum operation current: 0.147A between -20C and 0C, 0.16A between 10C and 20C, 0.17A between 30C and 50C.

Figure 3: spectra at different temperatures for various DC currents

