

Datasheet for #sbcw26485 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 #sbcw26485 DN (please note that AlN submount numbering is A0UZJ)

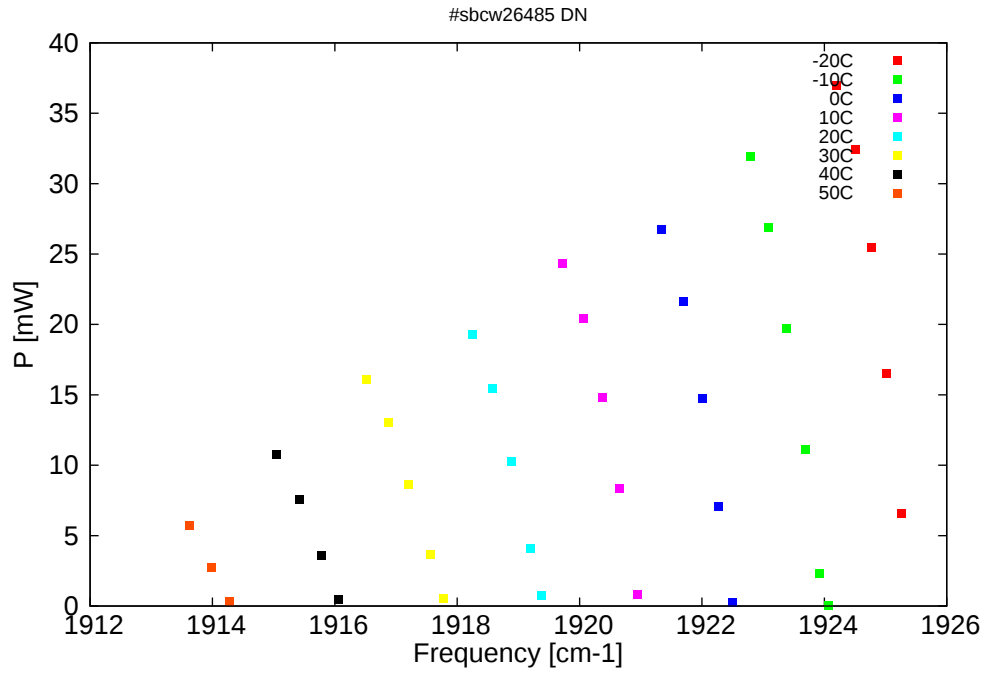


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

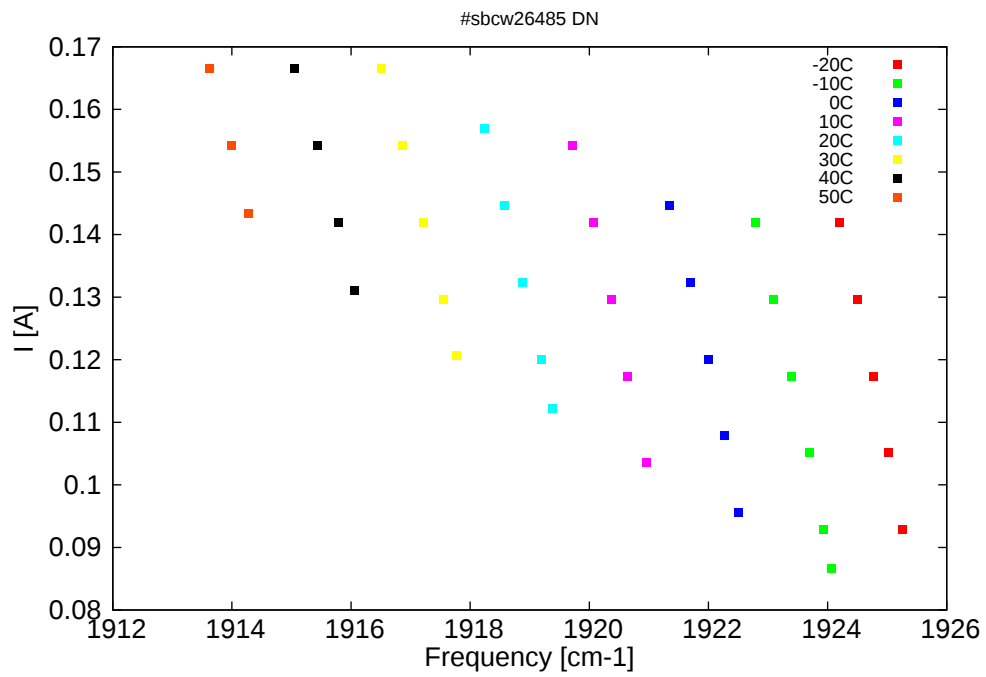


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
5194.1	1925.3	6.6	-20	8.72	0.093
5194.8	1925	16.5	-20	8.94	0.105
5195.4	1924.8	25.5	-20	9.17	0.117
5196.1	1924.5	32.4	-20	9.43	0.13
5197	1924.2	37	-20	9.71	0.142
5197.3	1924.1	0.1	-10	8.54	0.087
5197.7	1923.9	2.3	-10	8.64	0.093
5198.3	1923.7	11.1	-10	8.85	0.105
5199.2	1923.4	19.7	-10	9.07	0.117
5200	1923.1	26.9	-10	9.31	0.13
5200.8	1922.8	31.9	-10	9.57	0.142
5201.5	1922.5	0.2	0	8.59	0.096
5202.2	1922.3	7.1	0	8.79	0.108
5202.9	1922	14.7	0	9	0.12
5203.7	1921.7	21.6	0	9.24	0.132
5204.7	1921.3	26.7	0	9.48	0.145
5205.7	1921	0.8	10	8.65	0.104
5206.6	1920.6	8.3	10	8.88	0.117
5207.3	1920.4	14.9	10	9.09	0.13
5208.2	1920.1	20.4	10	9.33	0.142
5209.1	1919.7	24.3	10	9.57	0.154
5210	1919.4	0.7	20	8.7	0.112
5210.5	1919.2	4.1	20	8.83	0.12
5211.4	1918.9	10.3	20	9.03	0.132
5212.2	1918.6	15.5	20	9.26	0.145
5213.1	1918.2	19.3	20	9.49	0.157
5214.4	1917.8	0.5	30	8.77	0.121
5215	1917.6	3.7	30	8.91	0.13
5215.9	1917.2	8.6	30	9.12	0.142
5216.8	1916.9	13	30	9.34	0.154
5217.8	1916.5	16.1	30	9.57	0.167
5219.1	1916.1	0.5	40	8.86	0.131
5219.8	1915.8	3.6	40	9.02	0.142
5220.8	1915.4	7.6	40	9.23	0.154
5221.8	1915.1	10.8	40	9.44	0.167
5223.9	1914.3	0.3	50	8.97	0.143
5224.7	1914	2.7	50	9.13	0.154
5225.7	1913.6	5.7	50	9.33	0.167

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

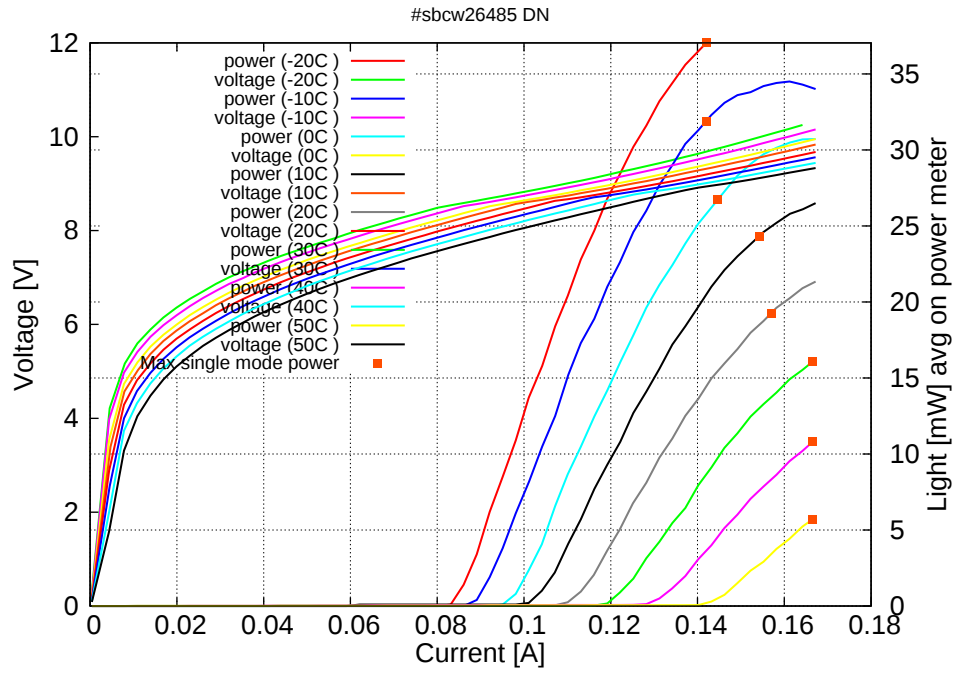


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.08A$ / $V_{th}=8.5V$ (2-wires measurements). Maximum operation current: 0.145A 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

