

Datasheet for #sbcw26529 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.

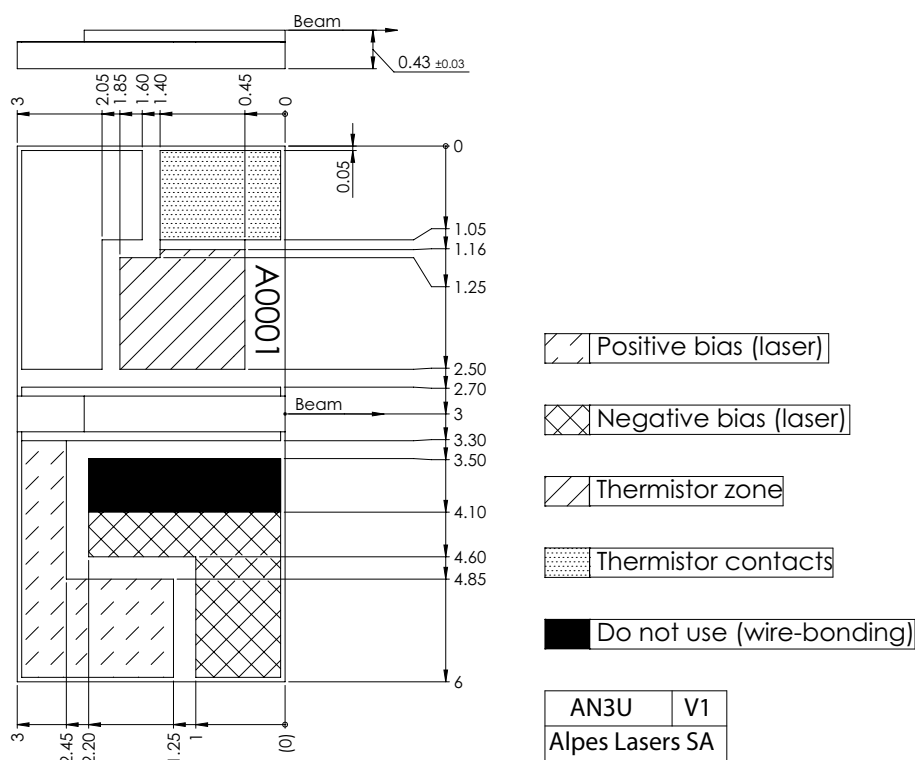


Figure 1: Mechanical and electrical interface for #sbcw26529 DN (please note that AlN submount numbering is A0U72)

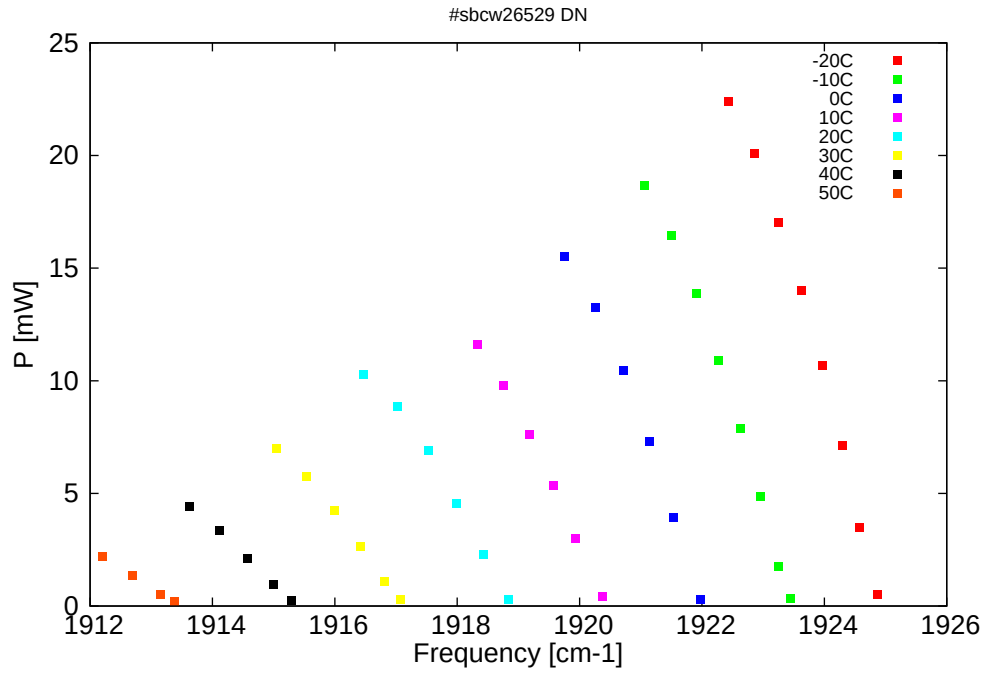


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

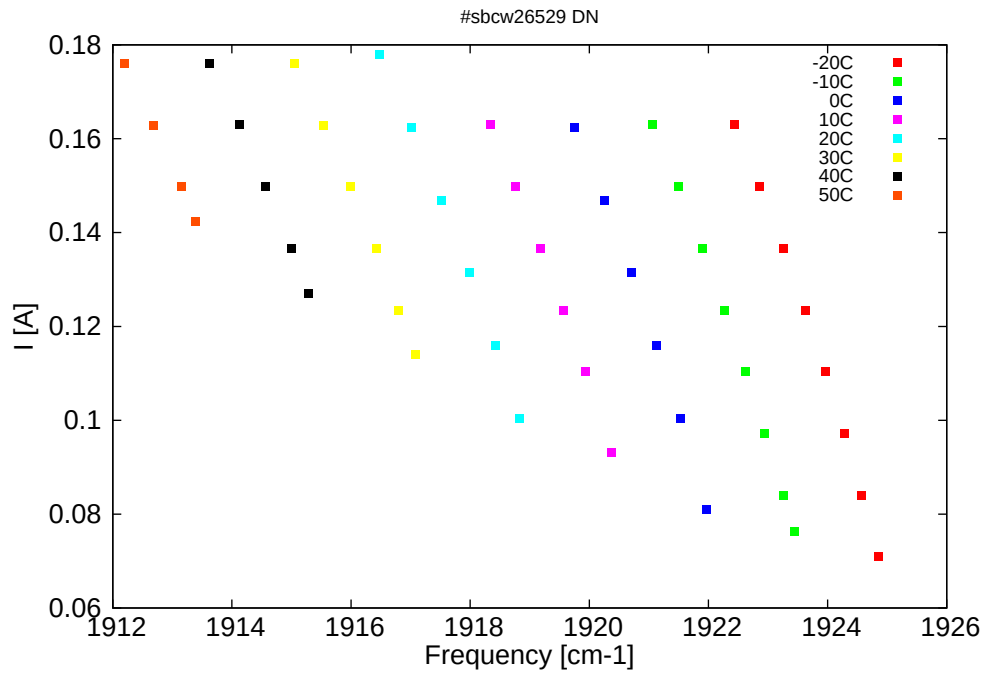


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5195.2	1924.9	0.5	-20	7.61	0.071
5195.9	1924.6	3.5	-20	7.79	0.084
5196.7	1924.3	7.1	-20	7.98	0.097
5197.6	1924	10.7	-20	8.18	0.11
5198.5	1923.6	14	-20	8.38	0.124
5199.5	1923.3	17	-20	8.6	0.137
5200.6	1922.9	20.1	-20	8.83	0.15
5201.7	1922.4	22.4	-20	9.09	0.163
5199	1923.4	0.3	-10	7.62	0.076
5199.5	1923.3	1.7	-10	7.72	0.084
5200.3	1922.9	4.9	-10	7.91	0.097
5201.2	1922.6	7.9	-10	8.11	0.11
5202.2	1922.3	10.9	-10	8.31	0.124
5203.2	1921.9	13.9	-10	8.52	0.137
5204.3	1921.5	16.5	-10	8.75	0.15
5205.4	1921.1	18.7	-10	8.99	0.163
5203	1922	0.3	0	7.66	0.081
5204.2	1921.5	4	0	7.92	0.1
5205.3	1921.1	7.3	0	8.15	0.116
5206.4	1920.7	10.4	0	8.39	0.131
5207.6	1920.3	13.3	0	8.64	0.147
5209	1919.8	15.5	0	8.92	0.162
5207.3	1920.4	0.4	10	7.74	0.093
5208.5	1919.9	3	10	7.96	0.11
5209.5	1919.6	5.3	10	8.16	0.124
5210.6	1919.2	7.6	10	8.36	0.137
5211.7	1918.8	9.8	10	8.57	0.15
5212.9	1918.3	11.6	10	8.8	0.163
5211.5	1918.8	0.3	20	7.81	0.1
5212.6	1918.4	2.3	20	8.01	0.116
5213.8	1918	4.6	20	8.23	0.131
5215.1	1917.5	6.9	20	8.47	0.147
5216.4	1917	8.8	20	8.73	0.162
5217.9	1916.5	10.3	20	9.01	0.178
5216.3	1917.1	0.3	30	7.91	0.114
5217	1916.8	1.1	30	8.03	0.124
5218.1	1916.4	2.6	30	8.21	0.137
5219.2	1916	4.3	30	8.4	0.15
5220.5	1915.5	5.7	30	8.61	0.163
5221.8	1915.1	7	30	8.83	0.176
5221.1	1915.3	0.3	40	8.03	0.127
5221.9	1915	0.9	40	8.15	0.137
5223.1	1914.6	2.1	40	8.32	0.15
5224.3	1914.1	3.3	40	8.52	0.163
5225.7	1913.6	4.4	40	8.73	0.176
5226.3	1913.4	0.2	50	8.17	0.142
5227	1913.1	0.5	50	8.26	0.15
5228.2	1912.7	1.4	50	8.44	0.163
5229.6	1912.2	2.2	50	8.63	0.176

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

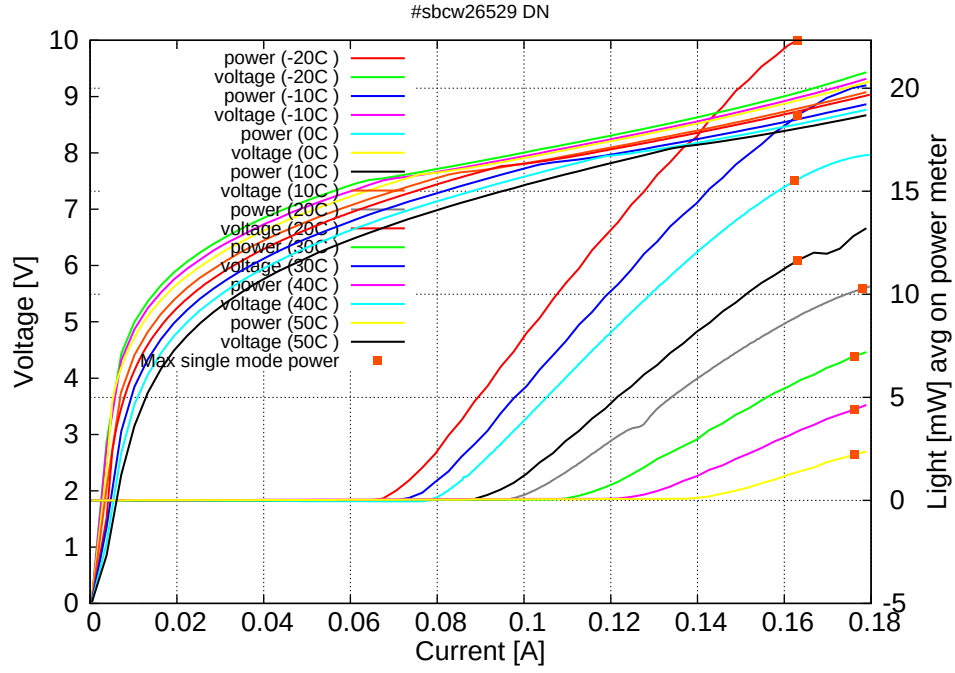


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.07\text{A}$ / $V_{th}=7.6\text{V}$ (2-wires measurements). Maximum operation current: 0.165A between -20C and 10C, 0.18A between 20C and 50C.

Figure 3: spectra at different temperatures for various DC currents

