

Datasheet for #sbcw26819 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.

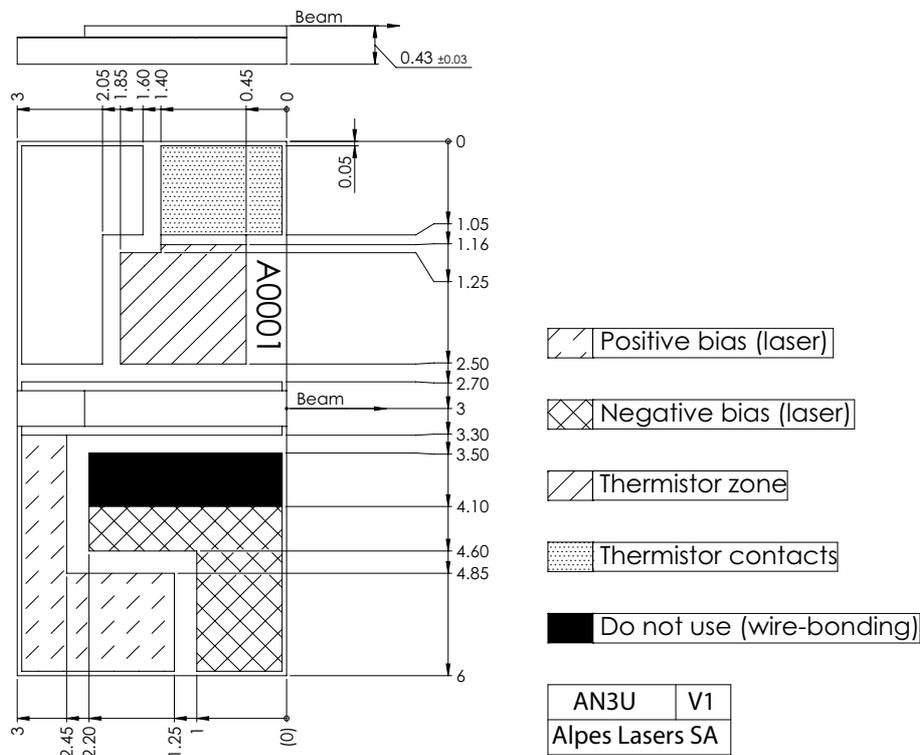


Figure 1: Mechanical and electrical interface for #sbcw26819 DN (please note that AlN submount numbering is A0YG2)

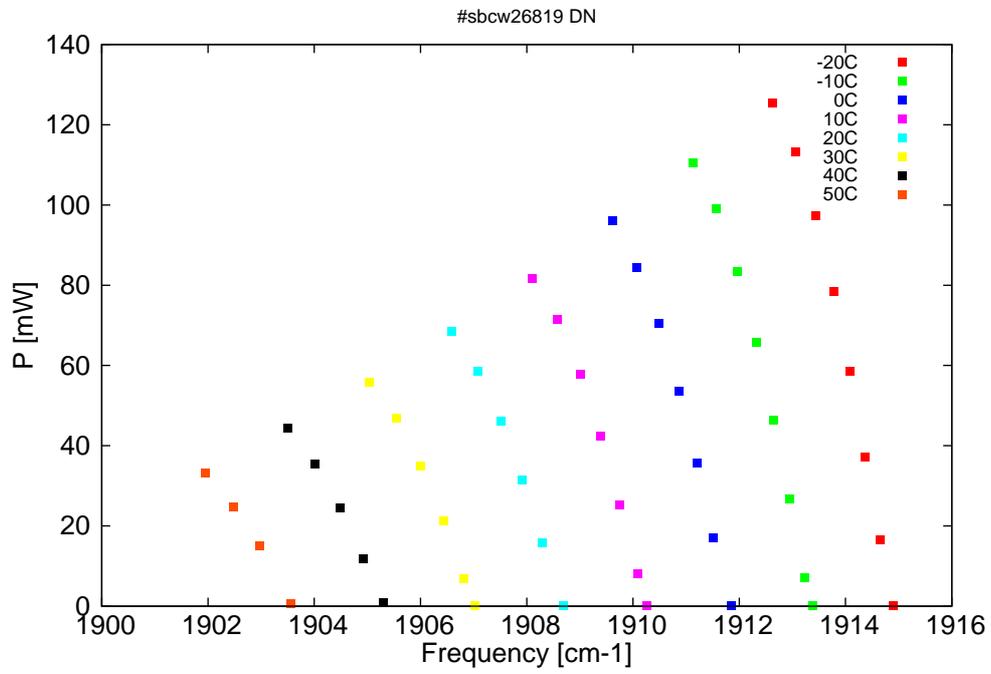


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

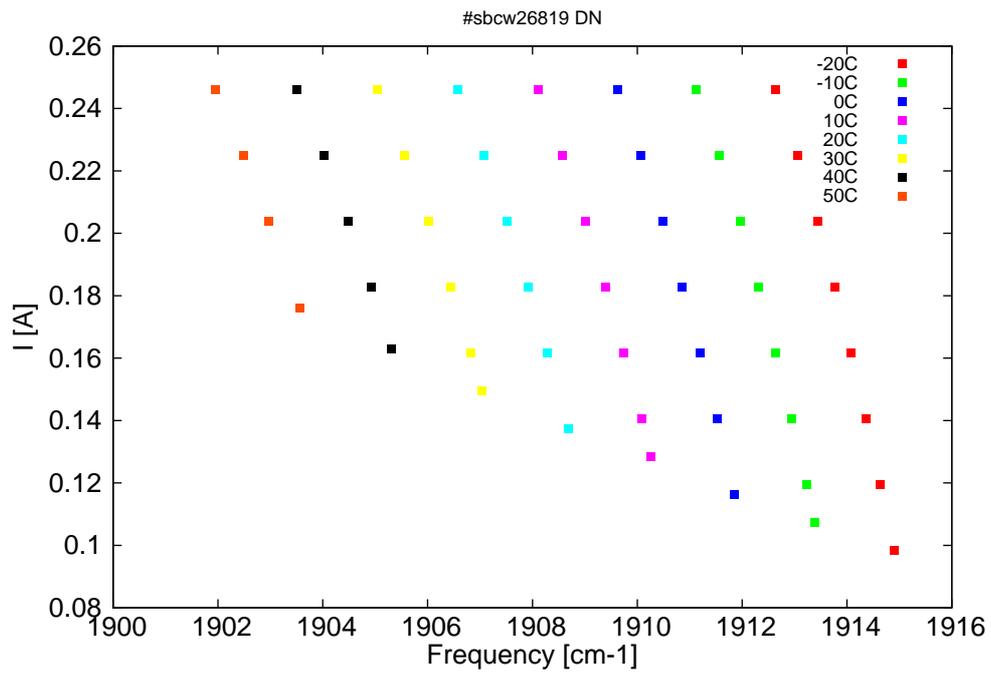


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5222.2	1914.9	0.1	-20	7.41	0.098
5222.9	1914.6	16.4	-20	7.61	0.12
5223.6	1914.4	37.1	-20	7.81	0.141
5224.4	1914.1	58.5	-20	8.02	0.162
5225.3	1913.8	78.4	-20	8.23	0.183
5226.2	1913.4	97.3	-20	8.44	0.204
5227.2	1913.1	113.2	-20	8.68	0.225
5228.4	1912.6	125.3	-20	8.94	0.246
5226.3	1913.4	0	-10	7.46	0.107
5226.8	1913.2	7.1	-10	7.57	0.12
5227.5	1913	26.8	-10	7.78	0.141
5228.4	1912.6	46.3	-10	7.99	0.162
5229.3	1912.3	65.8	-10	8.2	0.183
5230.2	1912	83.5	-10	8.42	0.204
5231.3	1911.6	99	-10	8.66	0.225
5232.5	1911.1	110.4	-10	8.91	0.246
5230.5	1911.9	0	0	7.51	0.116
5231.4	1911.5	17	0	7.75	0.141
5232.3	1911.2	35.6	0	7.96	0.162
5233.2	1910.9	53.7	0	8.17	0.183
5234.3	1910.5	70.4	0	8.4	0.204
5235.4	1910.1	84.5	0	8.64	0.225
5236.6	1909.6	96.1	0	8.89	0.246
5234.9	1910.3	0.2	10	7.59	0.128
5235.4	1910.1	8.1	10	7.71	0.141
5236.3	1909.7	25.3	10	7.92	0.162
5237.3	1909.4	42.5	10	8.14	0.183
5238.3	1909	57.7	10	8.37	0.204
5239.5	1908.6	71.5	10	8.61	0.225
5240.8	1908.1	81.7	10	8.86	0.246
5239.2	1908.7	0.1	20	7.66	0.137
5240.3	1908.3	15.8	20	7.9	0.162
5241.3	1907.9	31.4	20	8.12	0.183
5242.4	1907.5	46.1	20	8.35	0.204
5243.6	1907.1	58.7	20	8.59	0.225
5245	1906.6	68.5	20	8.84	0.246
5243.8	1907	0.2	30	7.75	0.149
5244.3	1906.8	6.9	30	7.88	0.162
5245.4	1906.4	21.4	30	8.1	0.183
5246.6	1906	34.9	30	8.33	0.204
5247.8	1905.6	46.9	30	8.57	0.225
5249.2	1905	55.9	30	8.82	0.246
5248.5	1905.3	0.8	40	7.86	0.163
5249.5	1904.9	11.9	40	8.08	0.183
5250.7	1904.5	24.4	40	8.31	0.204
5252.1	1904	35.3	40	8.54	0.225
5253.5	1903.5	44.3	40	8.8	0.246
5253.3	1903.6	0.6	50	7.99	0.176
5254.9	1903	15	50	8.29	0.204

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λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5256.3	1902.5	24.8	50	8.53	0.225
5257.8	1902	33.2	50	8.78	0.246

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

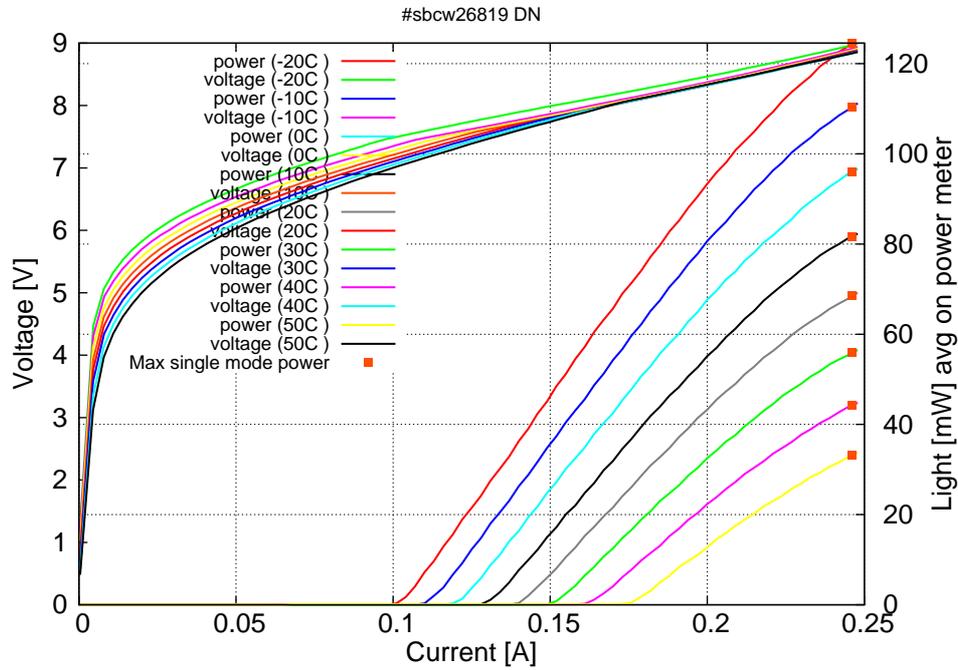


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.10A$ / $V_{th}=7.5V$ (2-wires measurements). Maximum operation current: 0.25A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

