

Datasheet for #sbcw26655 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 #sbcw26655 DN (please note that AlN submount numbering is A0U8U)

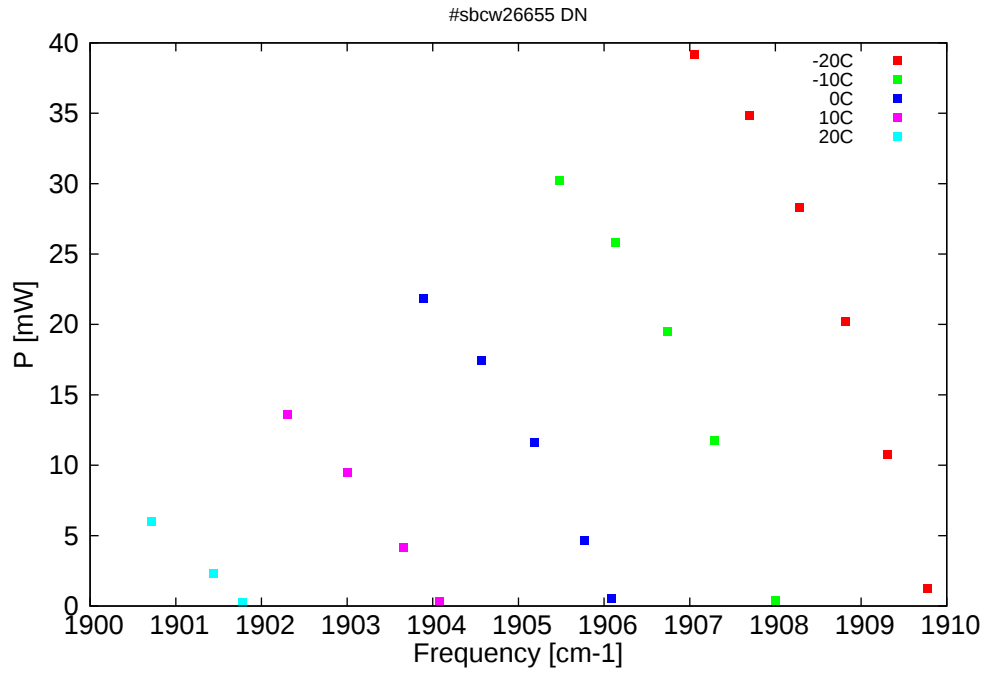


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

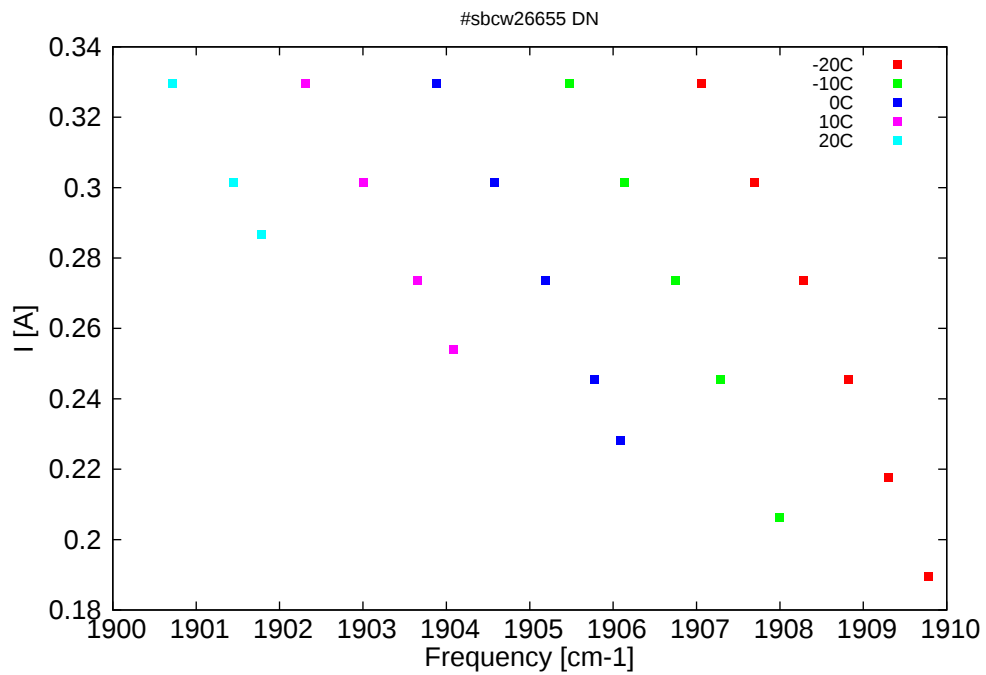


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5236.2	1909.8	1.3	-20	7.85	0.19
5237.5	1909.3	10.8	-20	8.02	0.218
5238.8	1908.8	20.2	-20	8.19	0.246
5240.3	1908.3	28.3	-20	8.37	0.274
5241.9	1907.7	34.8	-20	8.57	0.302
5243.7	1907.1	39.2	-20	8.77	0.33
5241.1	1908	0.4	-10	7.9	0.206
5243.1	1907.3	11.8	-10	8.14	0.246
5244.5	1906.7	19.5	-10	8.32	0.274
5246.2	1906.1	25.8	-10	8.51	0.302
5248	1905.5	30.2	-10	8.72	0.33
5246.3	1906.1	0.6	0	7.98	0.228
5247.2	1905.8	4.6	0	8.09	0.246
5248.8	1905.2	11.6	0	8.27	0.274
5250.5	1904.6	17.5	0	8.45	0.302
5252.4	1903.9	21.8	0	8.66	0.33
5251.9	1904.1	0.3	10	8.09	0.254
5253.1	1903.7	4.2	10	8.2	0.274
5254.8	1903	9.5	10	8.39	0.302
5256.8	1902.3	13.6	10	8.59	0.33
5258.2	1901.8	0.3	20	8.24	0.287
5259.2	1901.4	2.3	20	8.33	0.302
5261.2	1900.7	6	20	8.52	0.33

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

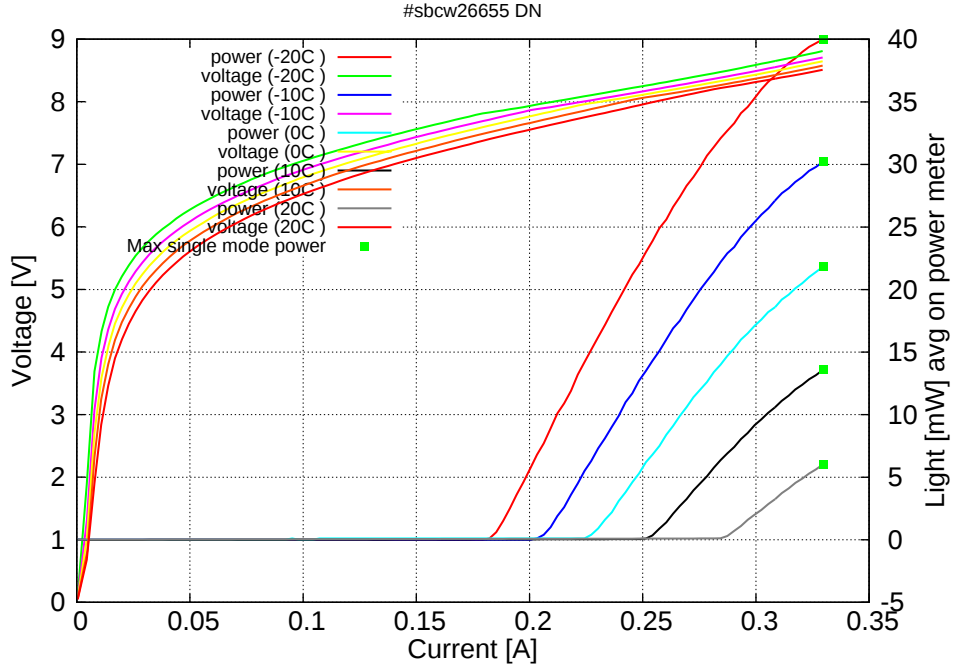


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.18A$ / $V_{th}=7.8V$ (2-wires measurements). Maximum operation current: 0.330A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

