

Datasheet for #sbcw24669 DN

Recommendations:

Please read the User Manual and have a look at the FAQ at <http://www.alpeslasers.ch/?a=142>

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 #sbcw24669 DN (please note that AlN submount numbering is A113N)

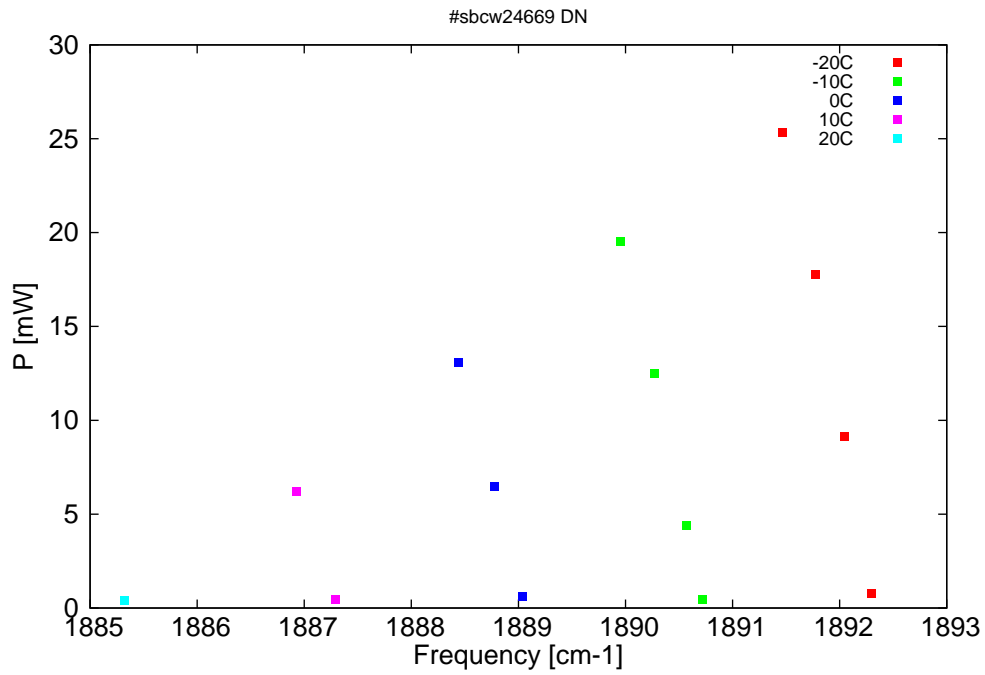


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

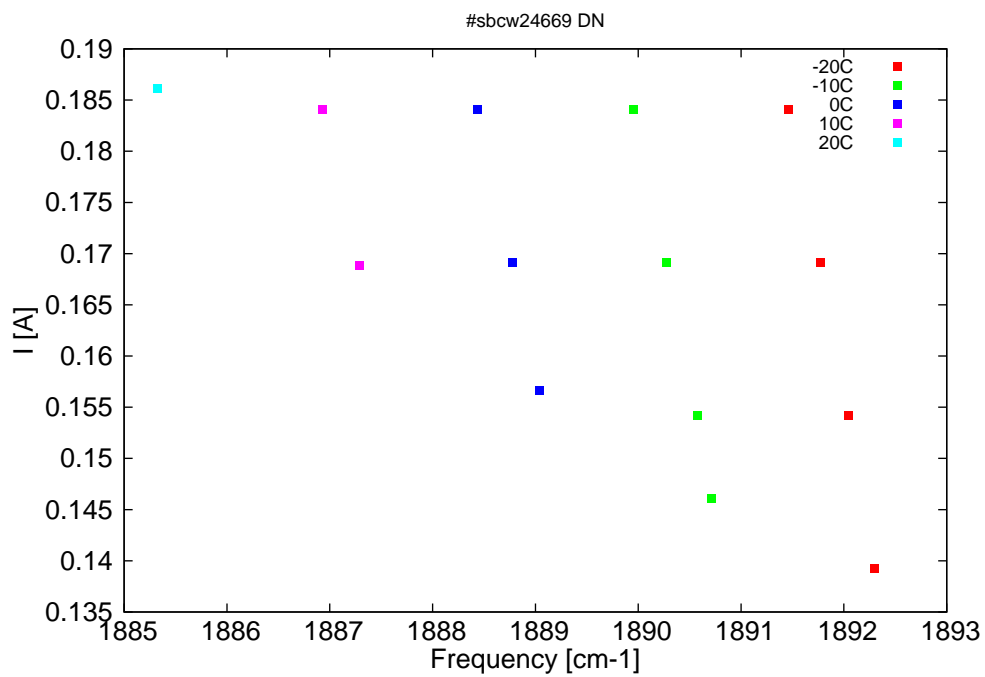


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm^{-1}]	P[mW]	Temp[$^{\circ}\text{C}$]	U_{LASER} [V]	I[A]
5284.6	1892.3	0.8	-20	8.29	0.139
5285.3	1892	9.2	-20	8.48	0.154
5286	1891.8	17.8	-20	8.71	0.169
5286.9	1891.5	25.3	-20	8.94	0.184
5289	1890.7	0.5	-10	8.34	0.146
5289.4	1890.6	4.4	-10	8.45	0.154
5290.2	1890.3	12.5	-10	8.68	0.169
5291.1	1890	19.5	-10	8.92	0.184
5293.7	1889	0.6	0	8.45	0.157
5294.4	1888.8	6.5	0	8.64	0.169
5295.4	1888.4	13.1	0	8.88	0.184
5298.6	1887.3	0.4	10	8.62	0.169
5299.6	1886.9	6.2	10	8.87	0.184
5304.1	1885.3	0.4	20	8.88	0.186

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

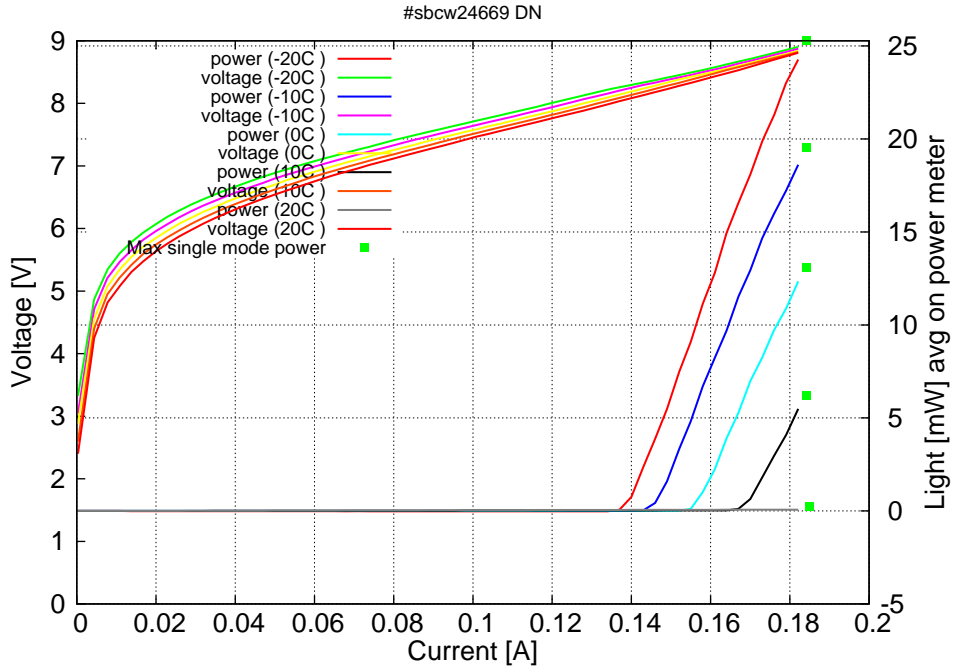


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.14\text{A}$ / $V_{th}=8.2\text{V}$ (2-wires measurements). Maximum operation current: 0.185A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

