

Datasheet for #sbcw25522 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 #sbcw25522 DN (please note that AlN submount numbering is A0U12)

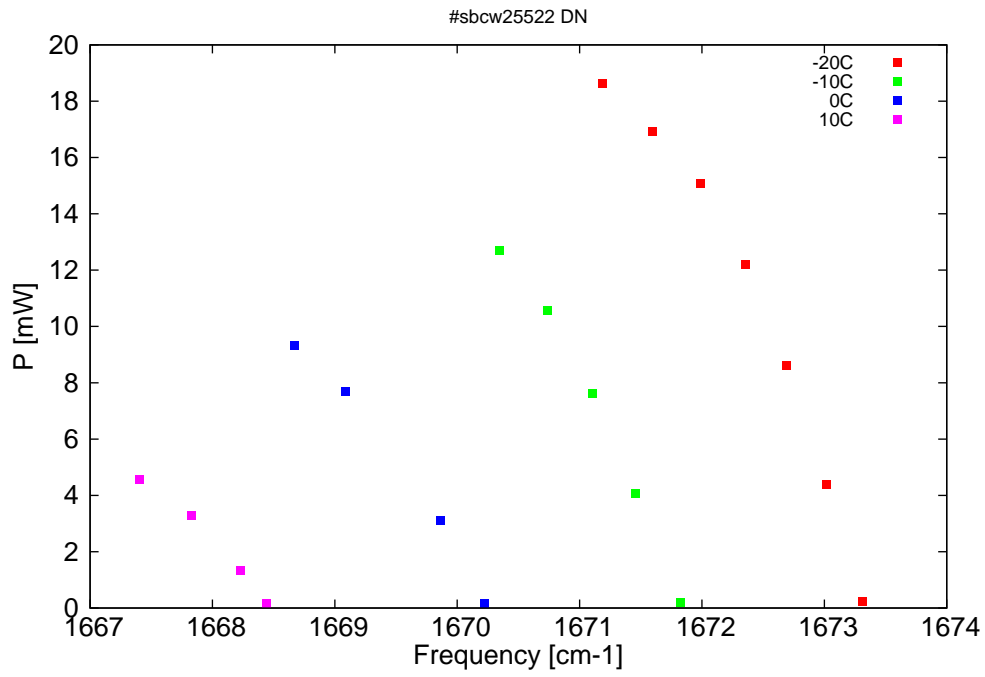


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

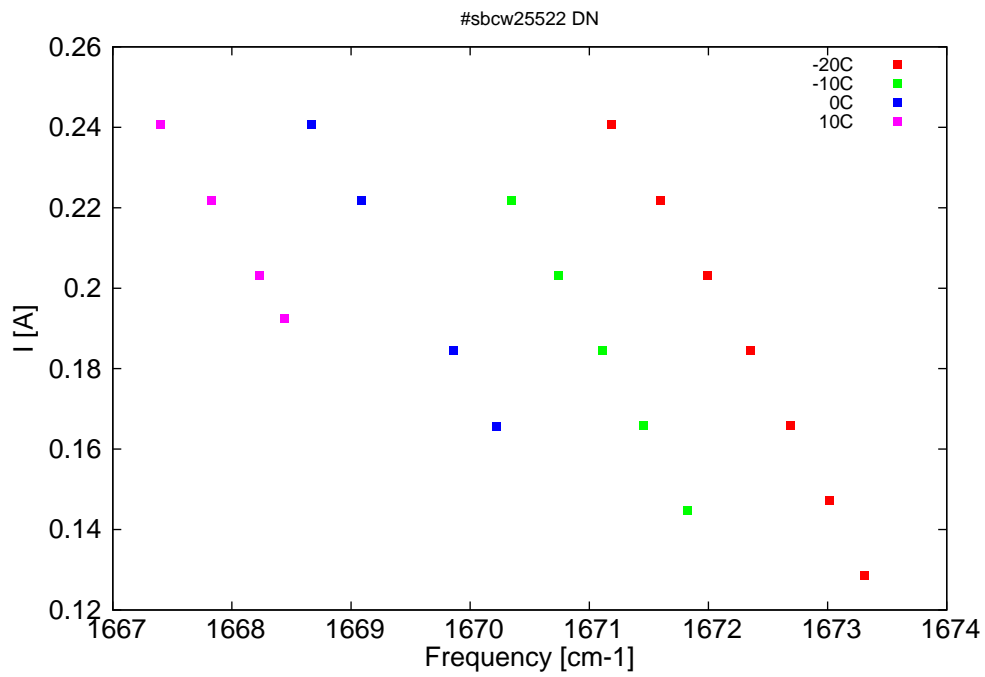


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm^{-1}]	P[mW]	Temp[$^{\circ}\text{C}$]	U_{LASER} [V]	I[A]
5976.2	1673.3	0.2	-20	10.66	0.129
5977.2	1673	4.4	-20	11.03	0.147
5978.4	1672.7	8.6	-20	11.39	0.166
5979.6	1672.4	12.2	-20	11.73	0.185
5980.9	1672	15.1	-20	12.07	0.203
5982.3	1671.6	16.9	-20	12.41	0.222
5983.8	1671.2	18.6	-20	12.74	0.241
5981.5	1671.8	0.2	-10	10.8	0.145
5982.8	1671.5	4.1	-10	11.2	0.166
5984.1	1671.1	7.6	-10	11.55	0.185
5985.4	1670.7	10.6	-10	11.91	0.203
5986.8	1670.3	12.7	-10	12.26	0.222
5987.2	1670.2	0.2	0	11.13	0.166
5988.5	1669.9	3.1	0	11.48	0.185
5991.3	1669.1	7.7	0	12.18	0.222
5992.8	1668.7	9.3	0	12.53	0.241
5993.6	1668.4	0.2	10	11.54	0.192
5994.4	1668.2	1.3	10	11.71	0.203
5995.8	1667.8	3.3	10	12.03	0.222
5997.3	1667.4	4.6	10	12.28	0.241

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

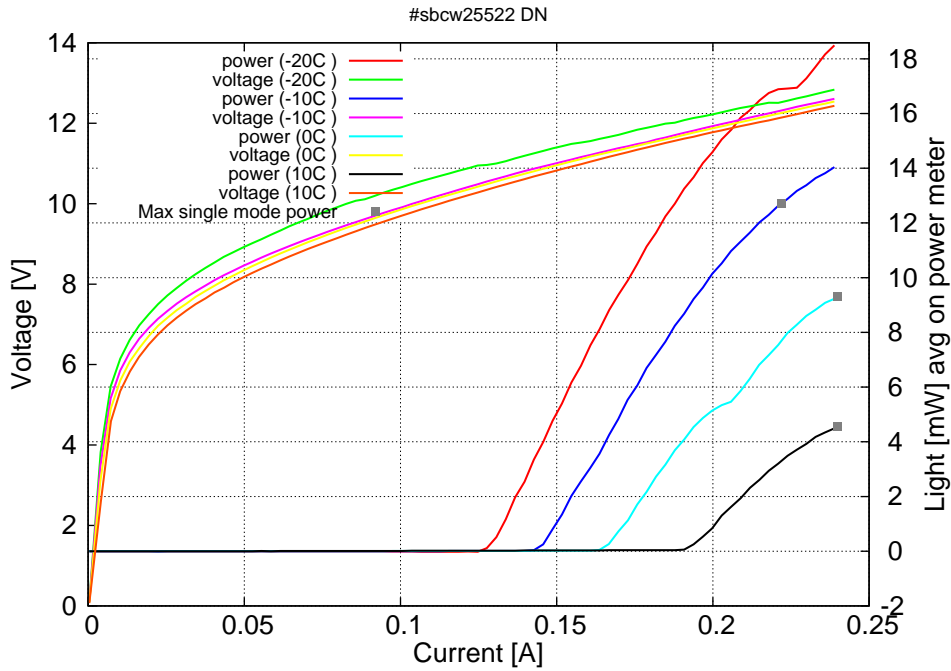


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.13\text{A}$ / $V_{th}=10.8\text{V}$ (2-wires measurements). Maximum operation current: 0.24A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

