

Datasheet for #sbcw25523 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 #sbcw25523 DN (please note that AlN submount numbering is A0U1M)

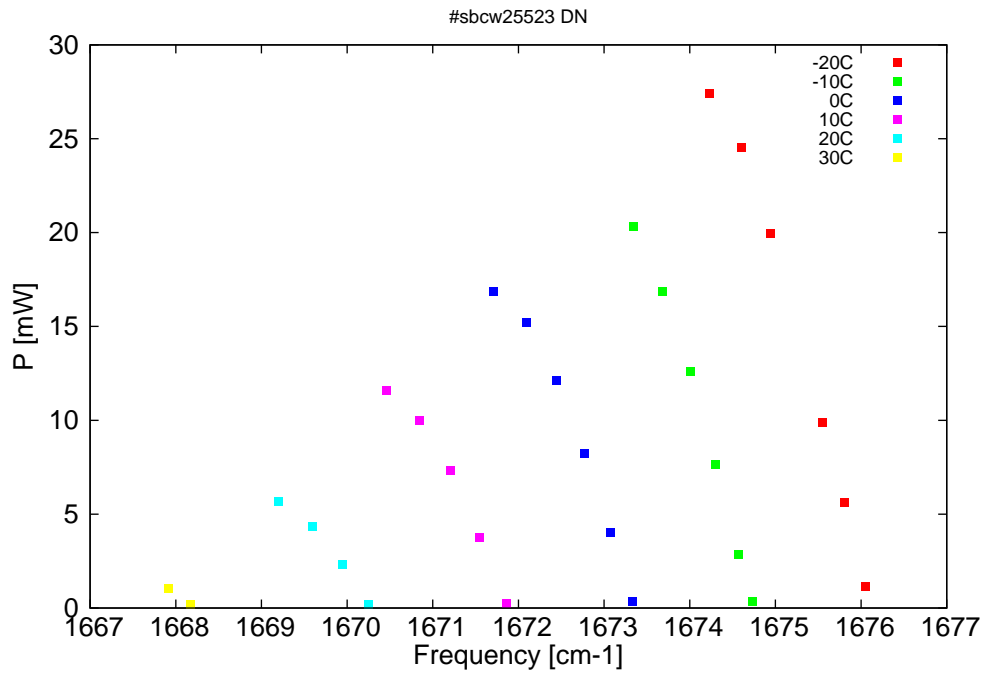


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

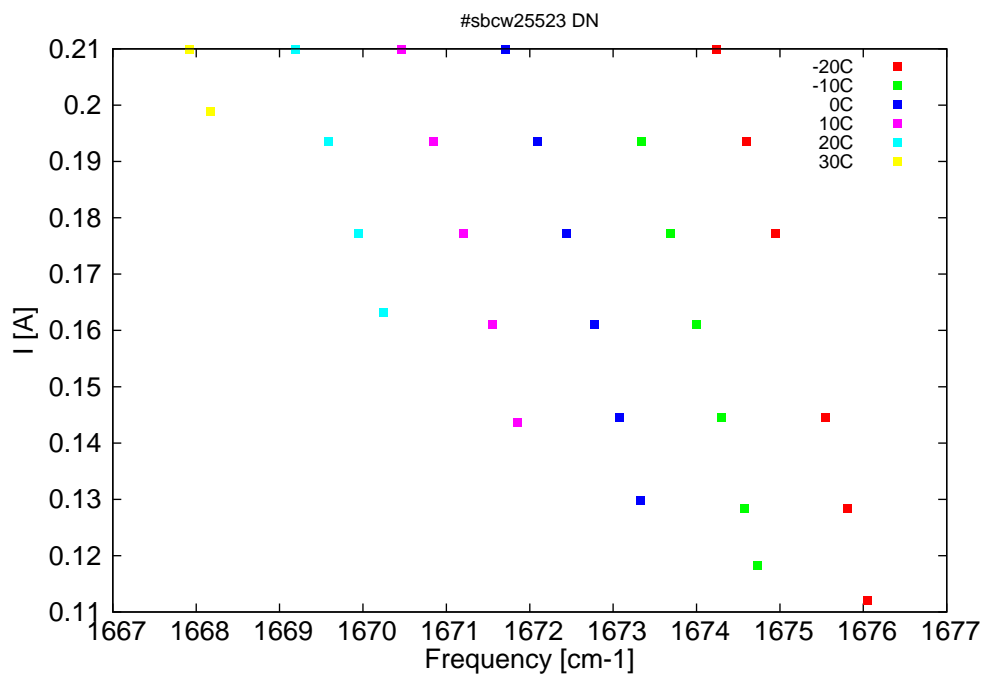


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5966.4	1676.1	1.2	-20	10.25	0.112
5967.3	1675.8	5.6	-20	10.59	0.128
5968.2	1675.6	9.9	-20	10.92	0.145
5970.3	1674.9	20	-20	11.56	0.177
5971.6	1674.6	24.5	-20	11.89	0.194
5972.9	1674.2	27.4	-20	12.22	0.21
5971.1	1674.7	0.3	-10	10.28	0.118
5971.7	1674.6	2.9	-10	10.49	0.128
5972.6	1674.3	7.7	-10	10.81	0.145
5973.7	1674	12.6	-10	11.13	0.161
5974.8	1673.7	16.9	-10	11.45	0.177
5976.1	1673.3	20.3	-10	11.77	0.194
5976.1	1673.3	0.3	0	10.41	0.13
5977	1673.1	4	0	10.7	0.145
5978.1	1672.8	8.2	0	11.01	0.161
5979.3	1672.4	12.1	0	11.32	0.177
5980.5	1672.1	15.2	0	11.64	0.194
5981.9	1671.7	16.9	0	11.96	0.21
5981.4	1671.9	0.3	10	10.6	0.144
5982.5	1671.5	3.7	10	10.93	0.161
5983.7	1671.2	7.4	10	11.24	0.177
5985	1670.8	10	10	11.54	0.194
5986.4	1670.5	11.6	10	11.85	0.21
5987.1	1670.2	0.2	20	10.87	0.163
5988.2	1670	2.3	20	11.11	0.177
5989.5	1669.6	4.4	20	11.39	0.194
5990.9	1669.2	5.7	20	11.68	0.21
5994.6	1668.2	0.2	30	11.38	0.199
5995.5	1667.9	1	30	11.58	0.21

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

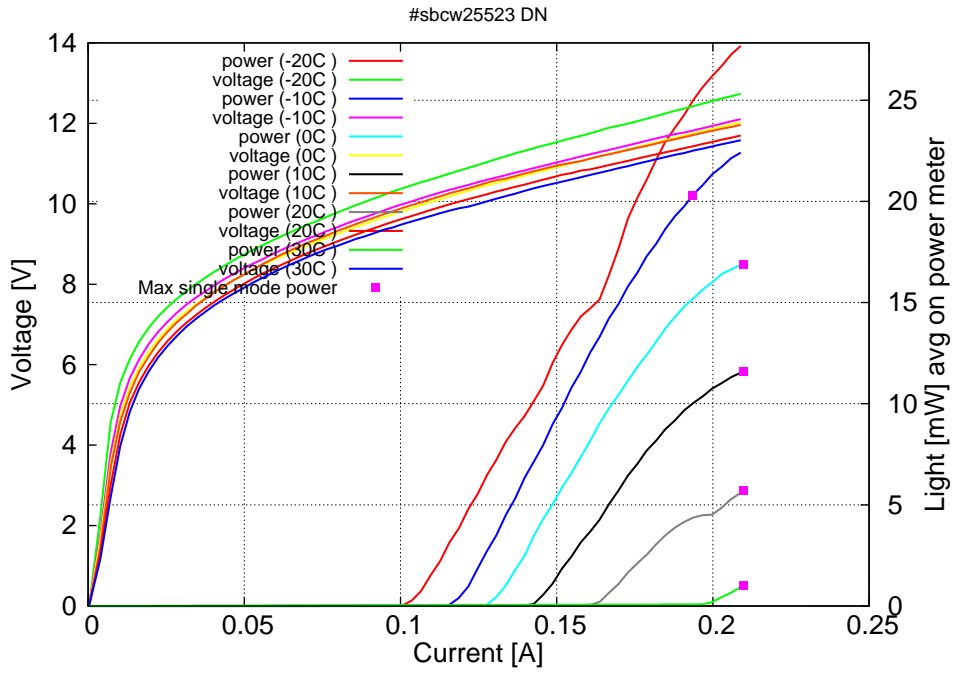


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.10A$ / $V_{th}=10.4V$ (2-wires measurements). Maximum operation current: 0.21A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

