

Datasheet for #sbcw24268 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 #sbcw24268 DN (please note that AlN submount numbering is A0ZR6)

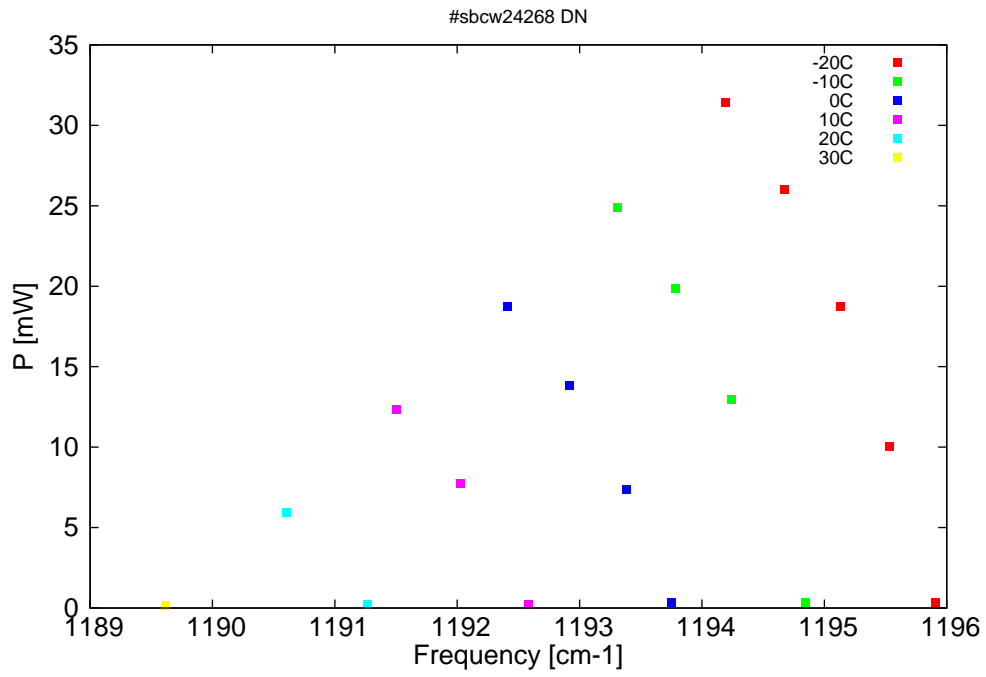


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

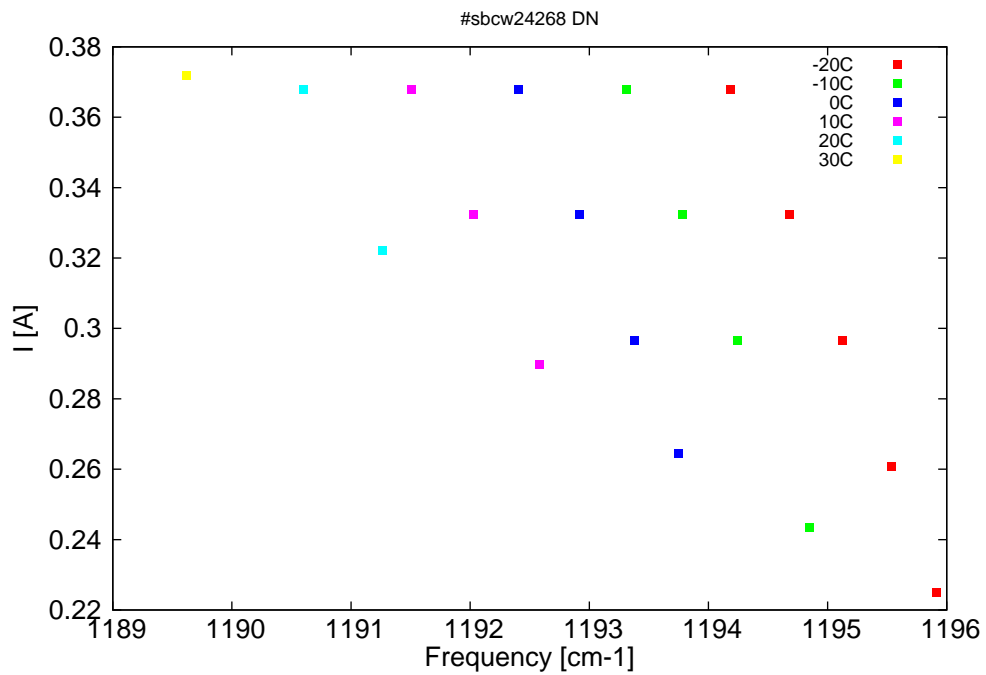


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
8361.8	1195.9	0.3	-20	9.58	0.225
8364.5	1195.5	10	-20	10.07	0.261
8367.3	1195.1	18.7	-20	10.55	0.297
8370.5	1194.7	26	-20	11.03	0.332
8373.9	1194.2	31.4	-20	11.51	0.368
8369.3	1194.8	0.4	-10	9.64	0.244
8373.5	1194.2	13	-10	10.33	0.297
8376.7	1193.8	19.8	-10	10.8	0.332
8380	1193.3	24.9	-10	11.26	0.368
8377	1193.8	0.3	0	9.73	0.264
8379.5	1193.4	7.4	0	10.14	0.297
8382.8	1192.9	13.8	0	10.6	0.332
8386.4	1192.4	18.8	0	11.04	0.368
8385.2	1192.6	0.2	10	9.88	0.29
8389.1	1192	7.7	10	10.4	0.332
8392.7	1191.5	12.3	10	10.84	0.368
8394.4	1191.3	0.2	20	10.11	0.322
8399.1	1190.6	6	20	10.65	0.368
8406.1	1189.6	0.2	30	10.51	0.372

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

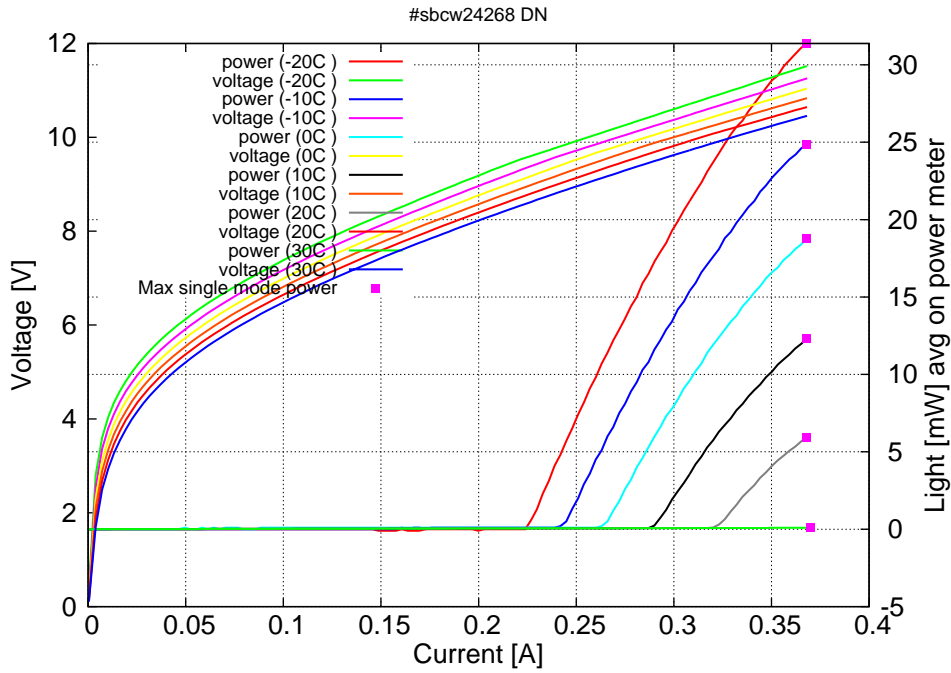


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.22A$ / $V_{th}=9.6V$ (2-wires measurements). Maximum operation current: 0.37A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

