

Datasheet for #sbcw24298 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 current on the laser contact (= bonding pad, corresponding to the label "laser" on the LLH) and the positive current on the base contact (= submount, corresponding to the label "base" on the LLH). 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.

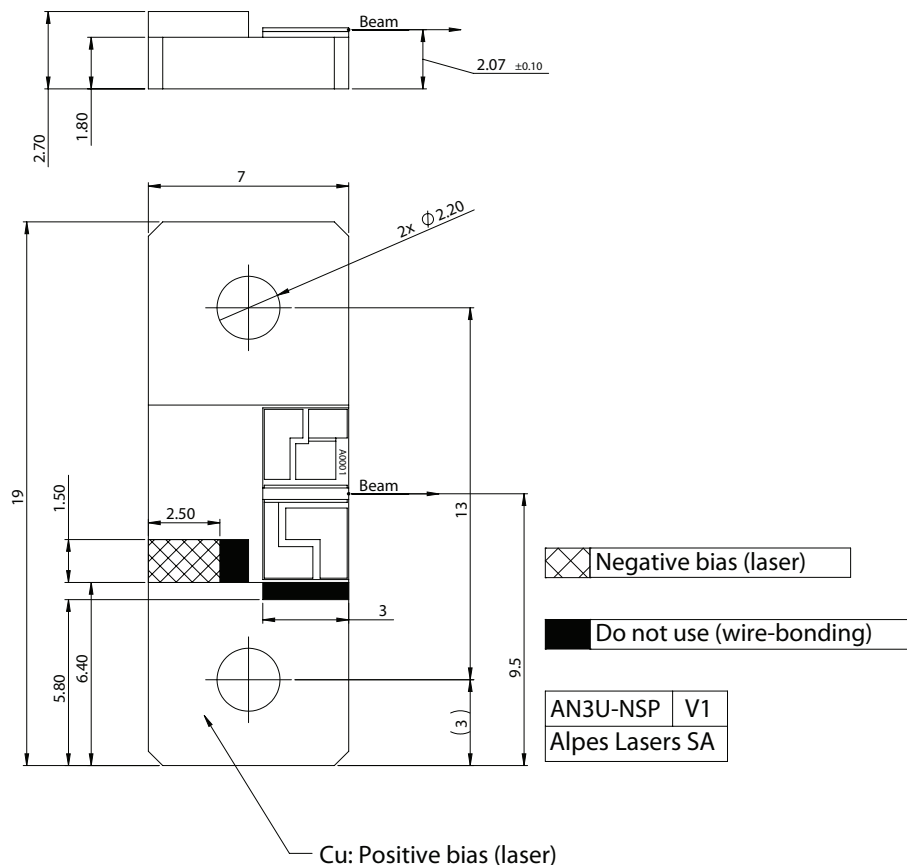


Figure 1: Mechanical and electrical interface for #sbcw24298 DN

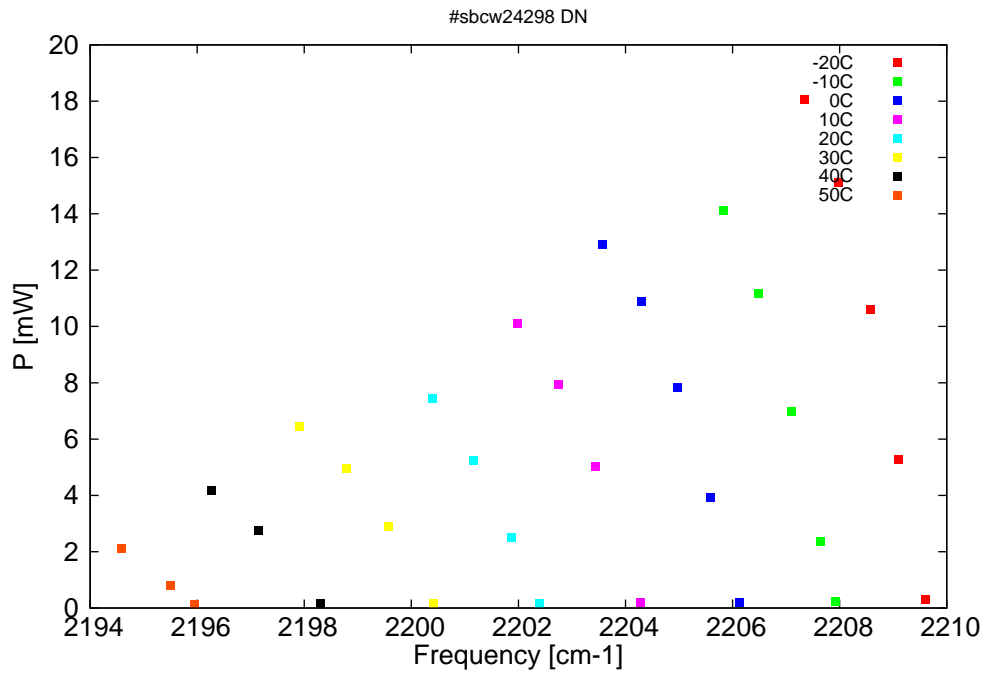


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

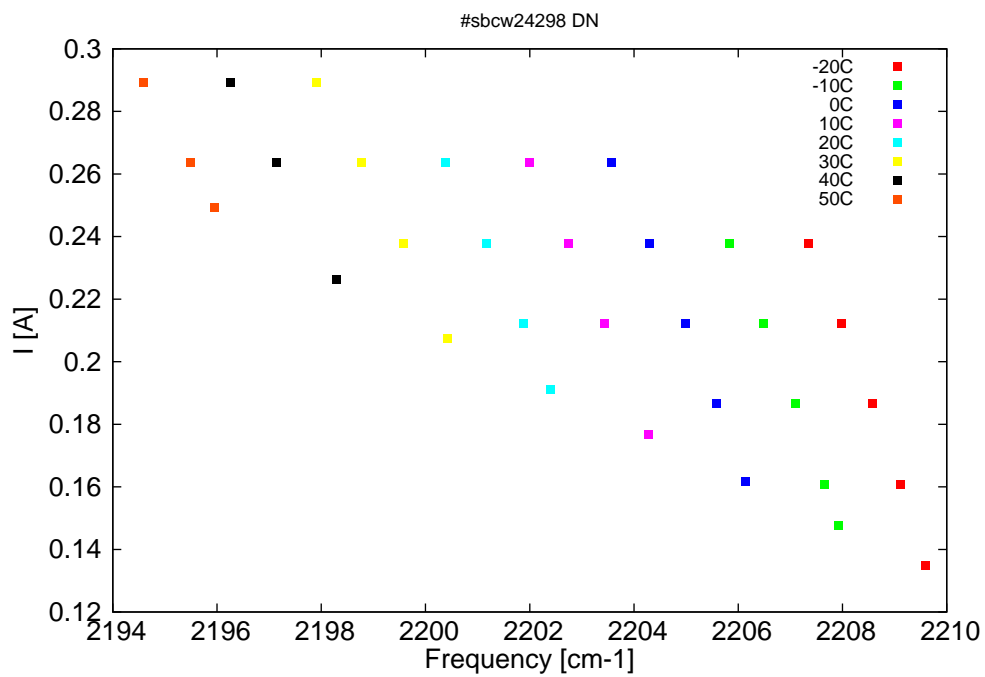


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4525.7	2209.6	0.3	-20	8.48	0.135
4526.7	2209.1	5.3	-20	8.69	0.161
4527.8	2208.6	10.6	-20	8.89	0.187
4529	2208	15.1	-20	9.09	0.212
4530.3	2207.4	18.1	-20	9.3	0.238
4529.2	2207.9	0.2	-10	8.55	0.148
4529.7	2207.6	2.4	-10	8.66	0.161
4530.8	2207.1	7	-10	8.86	0.187
4532.1	2206.5	11.2	-10	9.06	0.212
4533.4	2205.8	14.1	-10	9.27	0.238
4532.8	2206.1	0.2	0	8.63	0.162
4533.9	2205.6	3.9	0	8.83	0.187
4535.2	2205	7.8	0	9.03	0.212
4536.6	2204.3	10.9	0	9.24	0.238
4538.1	2203.6	12.9	0	9.44	0.264
4536.6	2204.3	0.2	10	8.72	0.177
4538.4	2203.4	5	10	9	0.212
4539.8	2202.7	7.9	10	9.21	0.238
4541.3	2202	10.1	10	9.42	0.264
4540.5	2202.4	0.2	20	8.81	0.191
4541.6	2201.9	2.5	20	8.97	0.212
4543	2201.2	5.3	20	9.18	0.238
4544.6	2200.4	7.4	20	9.4	0.264
4544.6	2200.4	0.2	30	8.91	0.207
4546.3	2199.6	2.9	30	9.16	0.238
4548	2198.8	4.9	30	9.37	0.264
4549.8	2197.9	6.4	30	9.59	0.289
4549	2198.3	0.2	40	9.05	0.226
4551.4	2197.1	2.8	40	9.35	0.264
4553.2	2196.3	4.2	40	9.57	0.289
4553.8	2195.9	0.1	50	9.23	0.249
4554.8	2195.5	0.8	50	9.34	0.264
4556.7	2194.6	2.1	50	9.56	0.289

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

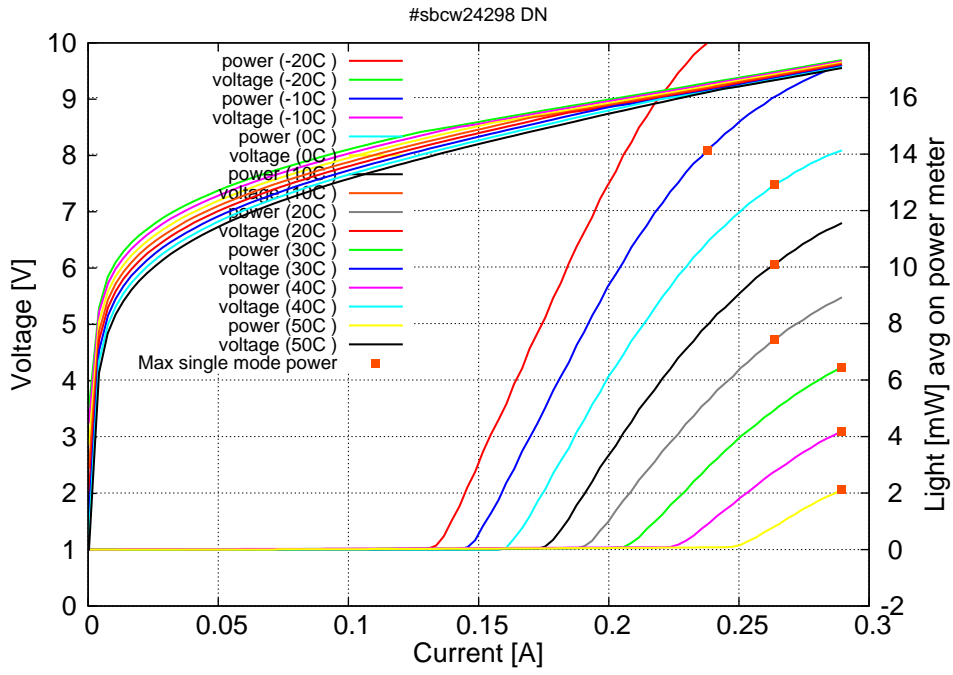


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.13A$ / $V_{th}=8.5V$ (2-wires measurements). Maximum operation current: 0.24A between -20C and -10C, 0.265A between 0C and 20C, 0.29A between 30C and 50C.

Figure 3: spectra at different temperatures for various DC currents

