

Datasheet for #sbcw27262 DN

Recommendations:

Please read the User Manual and have a look at the FAQ at <https://www.alpeslasers.ch/resources/#faq>

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.

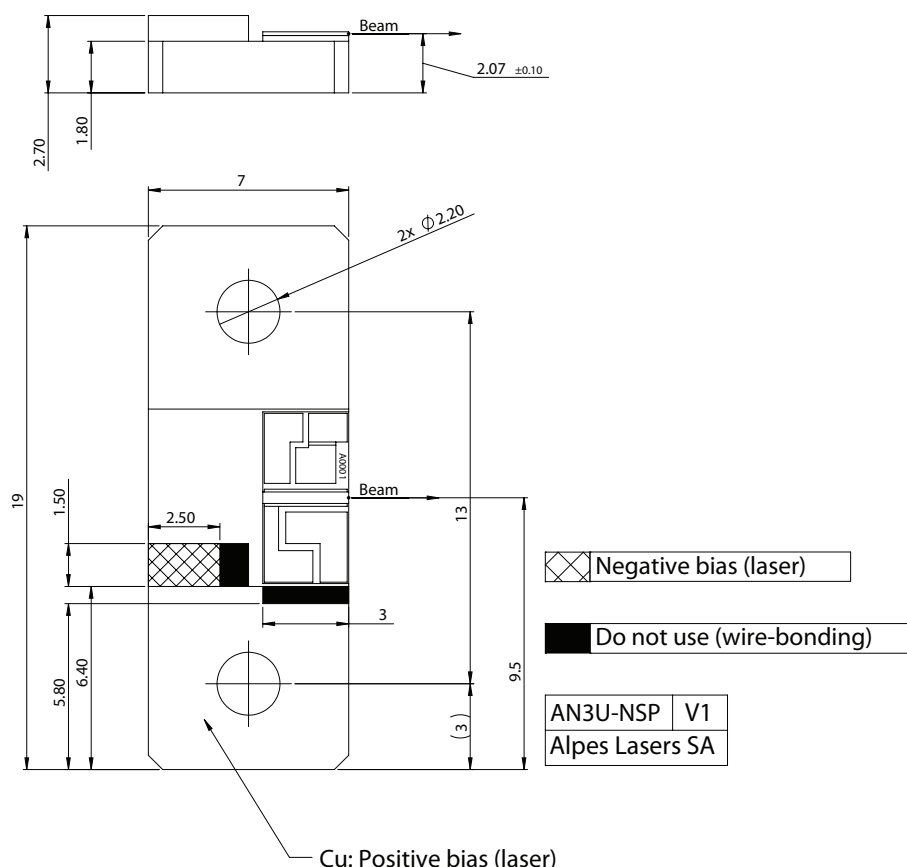


Figure 1: Mechanical and electrical interface for #sbcw27262 DN

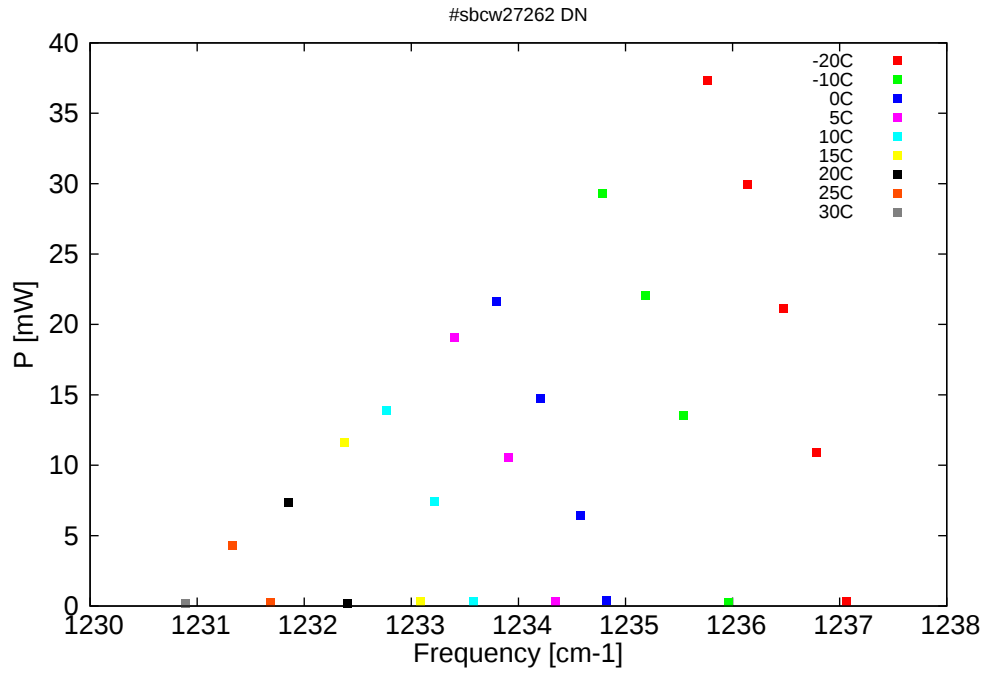


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

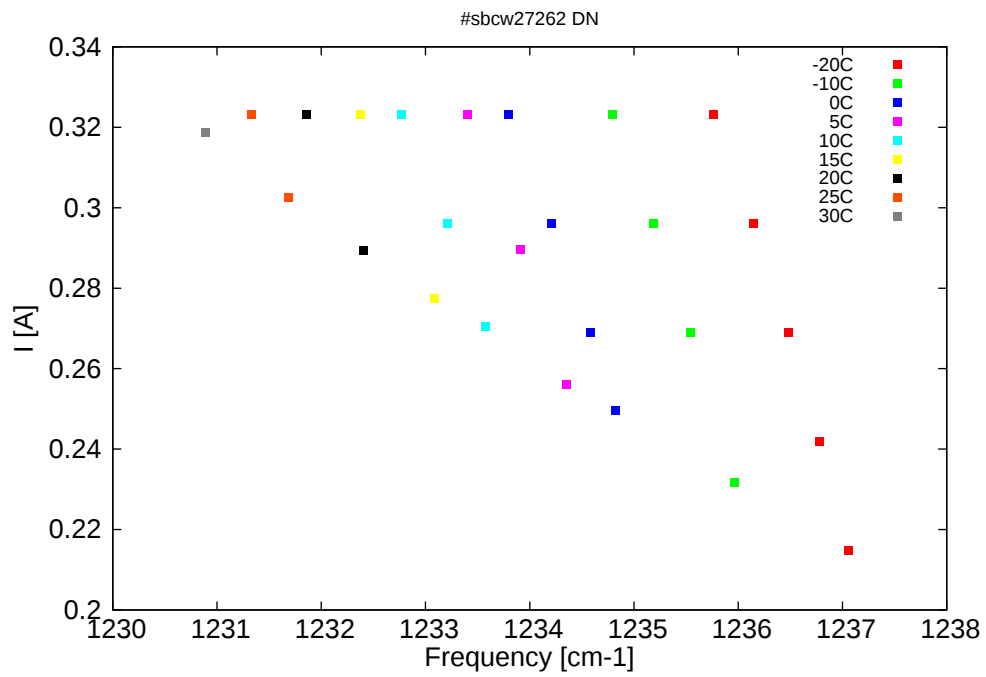


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
8083.7	1237.1	0.3	-20	7.38	0.215
8085.5	1236.8	10.9	-20	7.6	0.242
8087.5	1236.5	21.1	-20	7.83	0.269
8089.7	1236.1	29.9	-20	8.08	0.296
8092.2	1235.8	37.4	-20	8.35	0.323
8090.8	1236	0.3	-10	7.51	0.232
8093.6	1235.5	13.5	-10	7.83	0.269
8095.9	1235.2	22.1	-10	8.09	0.296
8098.5	1234.8	29.3	-10	8.37	0.323
8098.4	1234.8	0.4	0	7.66	0.25
8099.9	1234.6	6.4	0	7.84	0.269
8102.4	1234.2	14.8	0	8.11	0.296
8105.1	1233.8	21.6	0	8.39	0.323
8101.4	1234.3	0.3	5	7.73	0.256
8104.3	1233.9	10.6	5	8.06	0.29
8107.7	1233.4	19.1	5	8.41	0.323
8106.5	1233.6	0.3	10	7.86	0.271
8108.9	1233.2	7.4	10	8.12	0.296
8111.8	1232.8	13.9	10	8.41	0.323
8109.7	1233.1	0.3	15	7.94	0.277
8114.4	1232.4	11.6	15	8.43	0.323
8114.2	1232.4	0.2	20	8.07	0.289
8117.8	1231.9	7.3	20	8.44	0.323
8118.9	1231.7	0.2	25	8.22	0.303
8119	1231.7	0.2	25	8.22	0.303
8121.3	1231.3	4.3	25	8.45	0.323
8124.2	1230.9	0.2	30	8.41	0.319

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

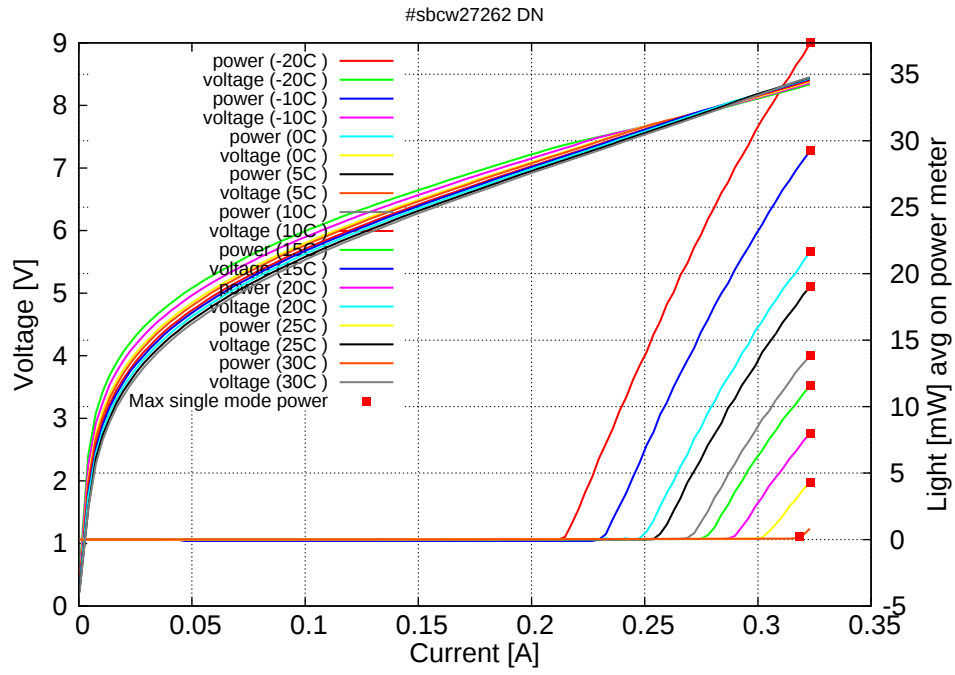


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.21A$ / $V_{th}=7.3V$ (2-wires measurements). Maximum operation current: 0.325A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

