

Datasheet for #sbcw26080 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.

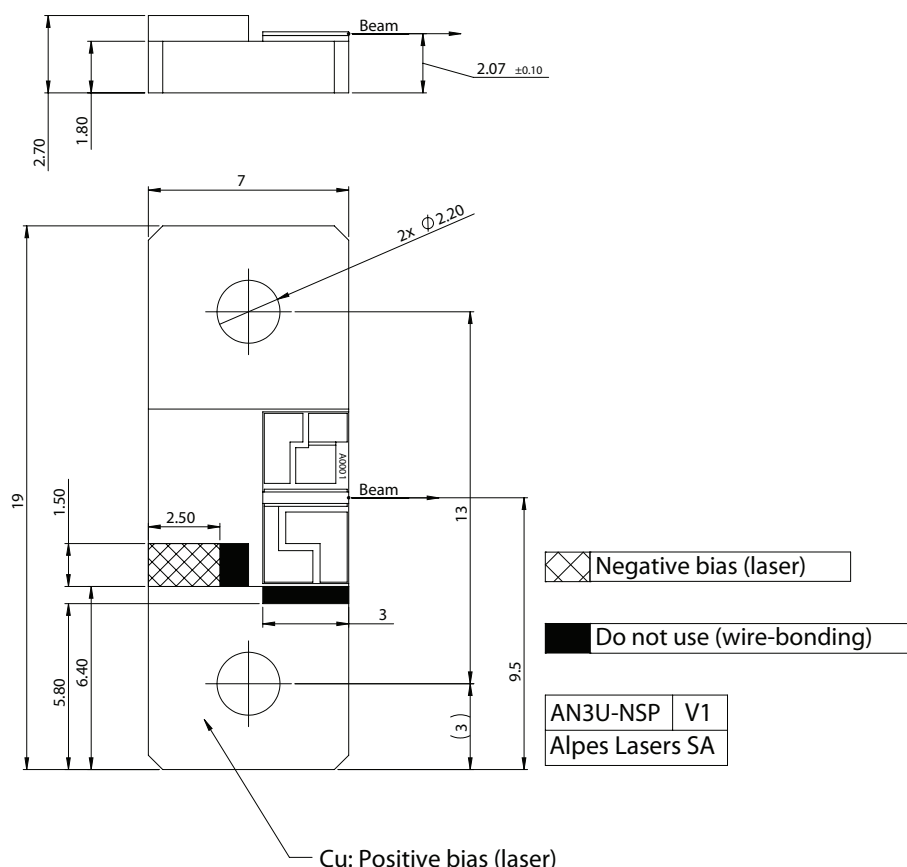


Figure 1: Mechanical and electrical interface for #sbcw26080 DN

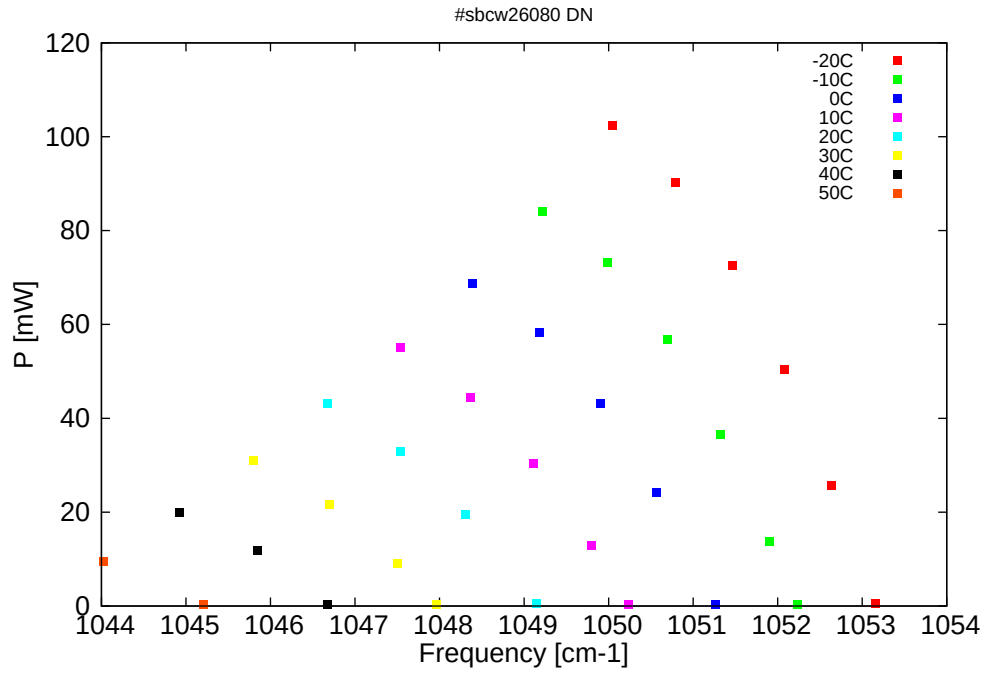


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

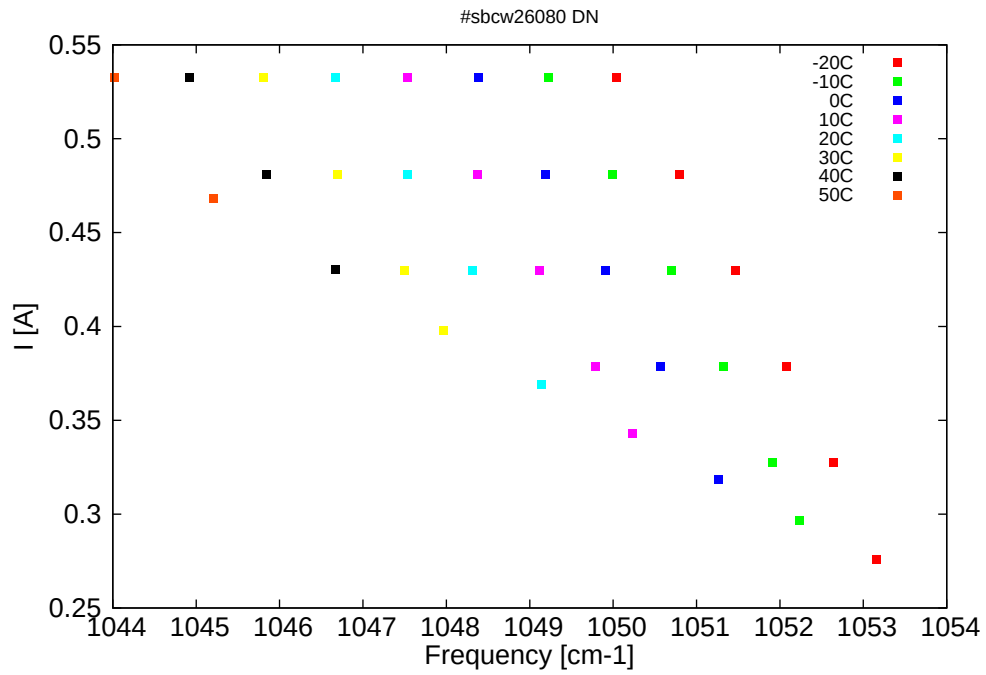


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
9495.2	1053.2	0.6	-20	9.25	0.276
9499.9	1052.6	25.7	-20	9.62	0.327
9505	1052.1	50.5	-20	9.96	0.379
9510.6	1051.5	72.6	-20	10.28	0.43
9516.6	1050.8	90.3	-20	10.62	0.481
9523.4	1050	102.4	-20	10.97	0.532
9503.6	1052.2	0.4	-10	9.29	0.297
9506.5	1051.9	13.8	-10	9.51	0.327
9511.8	1051.3	36.6	-10	9.86	0.379
9517.5	1050.7	56.9	-10	10.2	0.43
9523.9	1050	73.2	-10	10.54	0.481
9530.9	1049.2	84.1	-10	10.9	0.532
9512.4	1051.3	0.4	0	9.33	0.319
9518.7	1050.6	24.3	0	9.76	0.379
9524.6	1049.9	43.1	0	10.11	0.43
9531.2	1049.2	58.2	0	10.47	0.481
9538.5	1048.4	68.8	0	10.84	0.532
9521.7	1050.2	0.3	10	9.41	0.343
9525.7	1049.8	13	10	9.67	0.379
9531.8	1049.1	30.3	10	10.03	0.43
9538.6	1048.4	44.5	10	10.4	0.481
9546.2	1047.5	55	10	10.78	0.532
9531.6	1049.1	0.6	20	9.51	0.369
9539.2	1048.3	19.6	20	9.96	0.43
9546.2	1047.5	32.9	20	10.33	0.481
9554.1	1046.7	43.1	20	10.73	0.532
9542.3	1048	0.3	30	9.65	0.398
9546.5	1047.5	9	30	9.89	0.43
9553.9	1046.7	21.7	30	10.28	0.481
9562	1045.8	31	30	10.68	0.532
9554.1	1046.7	0.4	40	9.83	0.43
9561.6	1045.8	11.8	40	10.22	0.481
9570.1	1044.9	20	40	10.65	0.532
9567.4	1045.2	0.4	50	10.08	0.468
9578.3	1044	9.5	50	10.61	0.532

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

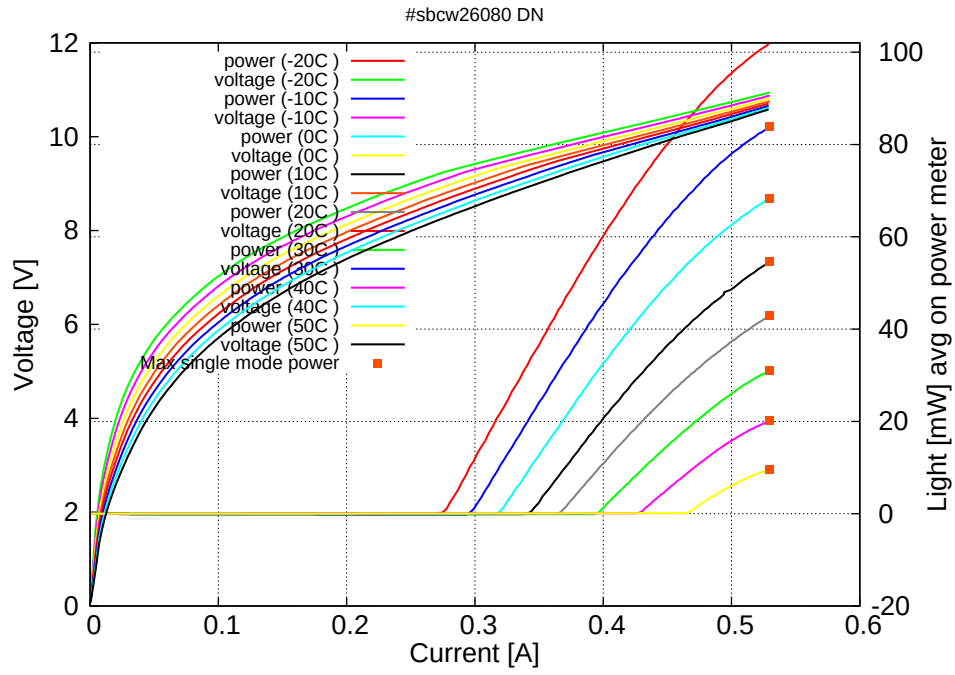


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.27A$ / $V_{th}=9.2V$ (2-wires measurements). Maximum operation current: 0.53A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

