

Datasheet for #sbcw26110 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.

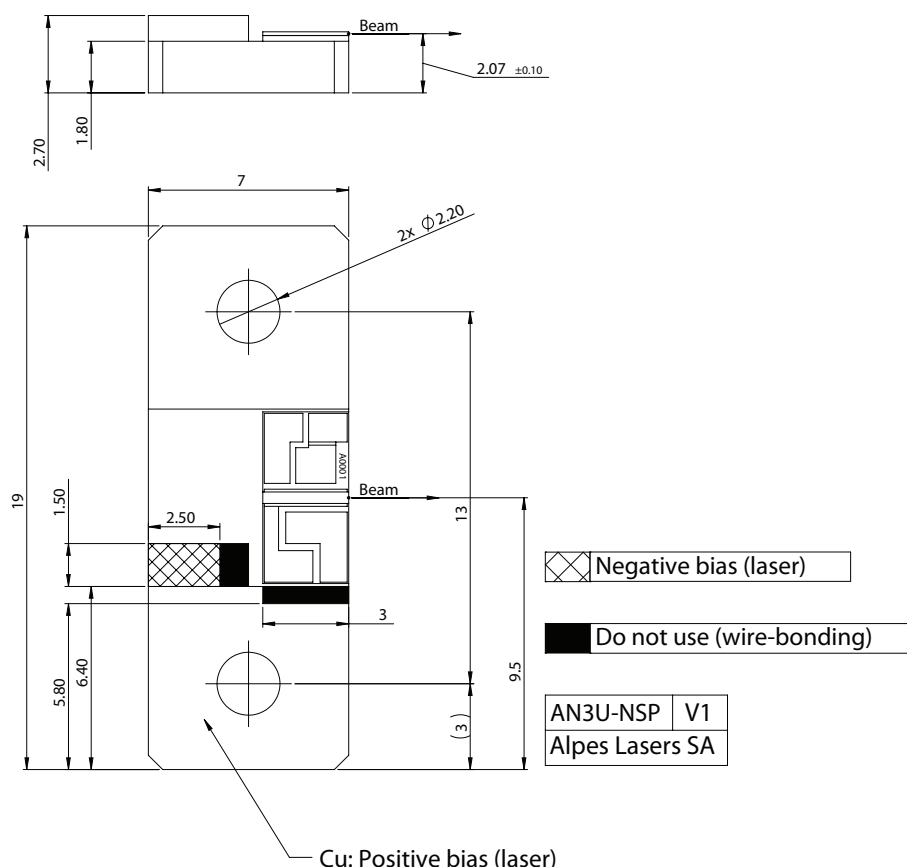


Figure 1: Mechanical and electrical interface for #sbcw26110 DN

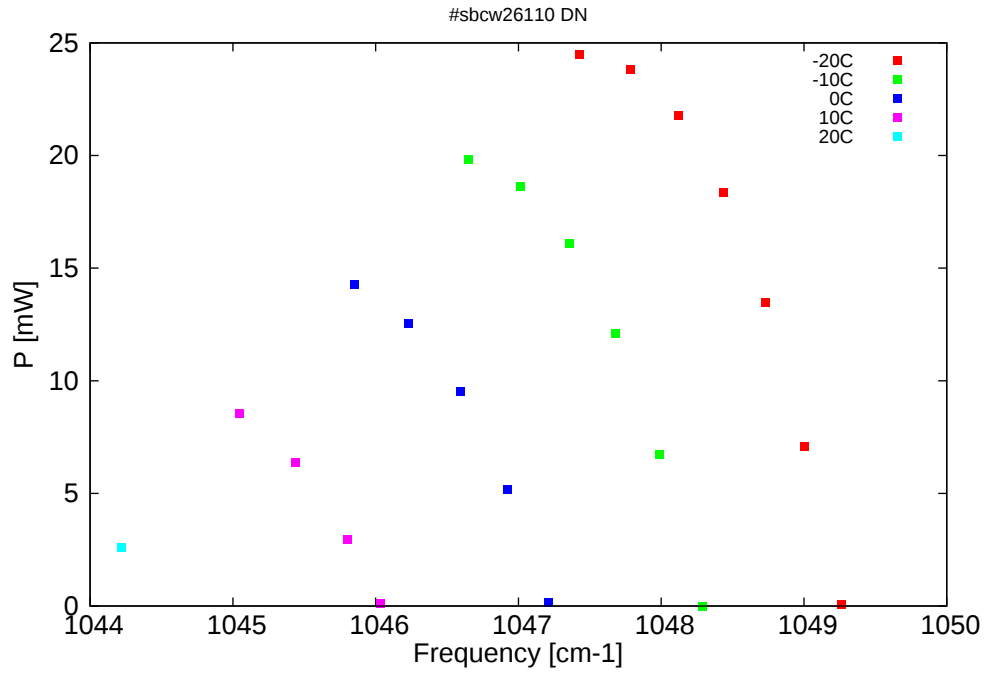


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

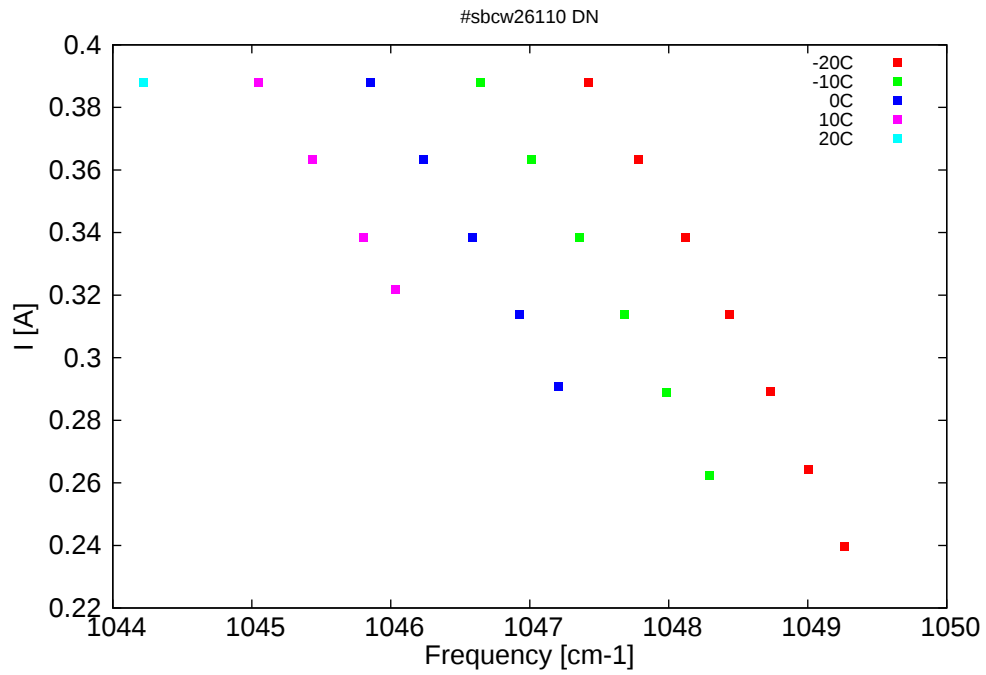


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
9530.5	1049.3	0.1	-20	9.67	0.24
9532.8	1049	7.1	-20	9.9	0.264
9535.3	1048.7	13.5	-20	10.12	0.289
9538	1048.4	18.4	-20	10.33	0.314
9540.9	1048.1	21.8	-20	10.56	0.339
9543.9	1047.8	23.8	-20	10.78	0.363
9547.2	1047.4	24.5	-20	11.01	0.388
9539.3	1048.3	0	-10	9.78	0.263
9542.1	1048	6.7	-10	10.01	0.289
9544.9	1047.7	12.1	-10	10.24	0.314
9547.8	1047.4	16.1	-10	10.46	0.339
9551	1047	18.6	-10	10.69	0.363
9554.3	1046.6	19.8	-10	10.91	0.388
9549.2	1047.2	0.2	0	9.94	0.291
9551.8	1046.9	5.2	0	10.14	0.314
9554.8	1046.6	9.5	0	10.37	0.339
9558.1	1046.2	12.5	0	10.6	0.363
9561.6	1045.9	14.3	0	10.83	0.388
9559.9	1046	0.1	10	10.13	0.322
9562	1045.8	2.9	10	10.28	0.339
9565.4	1045.4	6.4	10	10.52	0.363
9569	1045	8.5	10	10.75	0.388
9576.5	1044.2	2.6	20	10.67	0.388

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

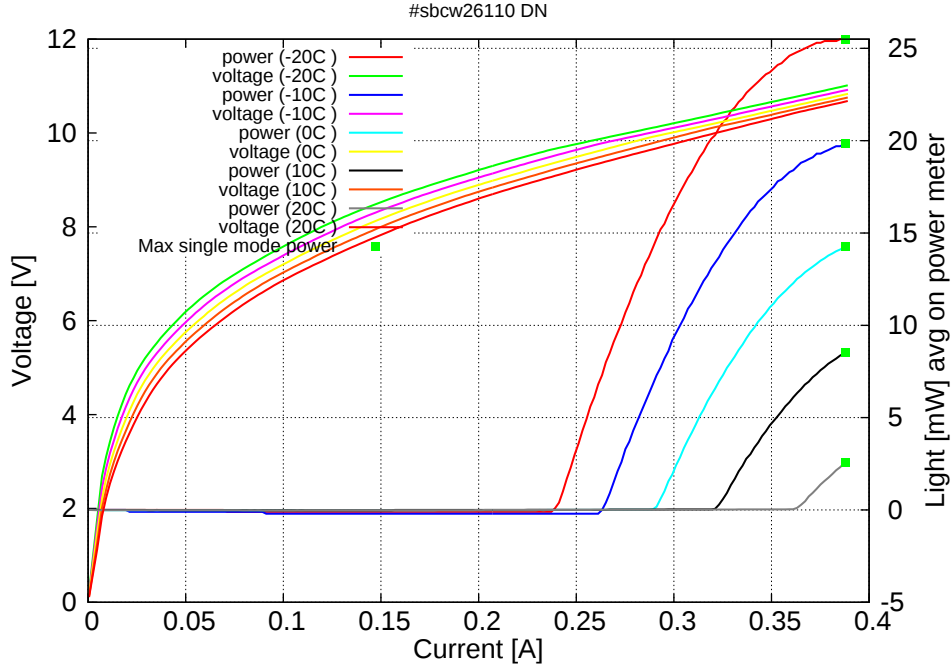


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.24A$ / $V_{th}=9.6V$ (2-wires measurements). Maximum operation current: 0.39A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

