

Datasheet for #sbcw26109 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.

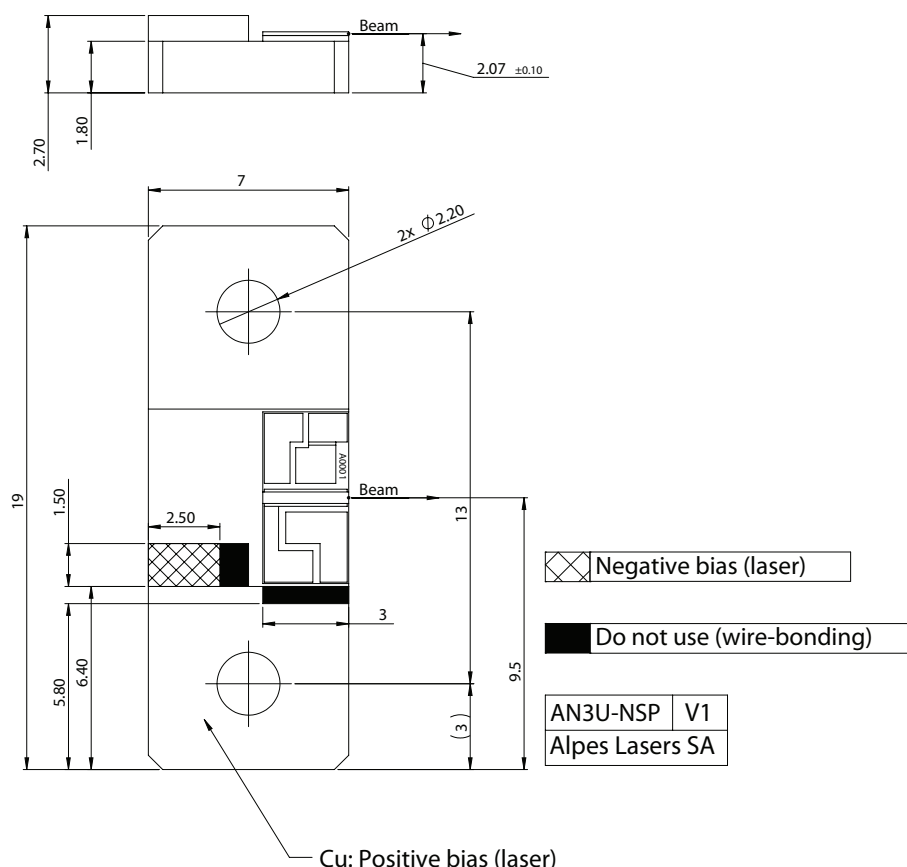


Figure 1: Mechanical and electrical interface for #sbcw26109 DN

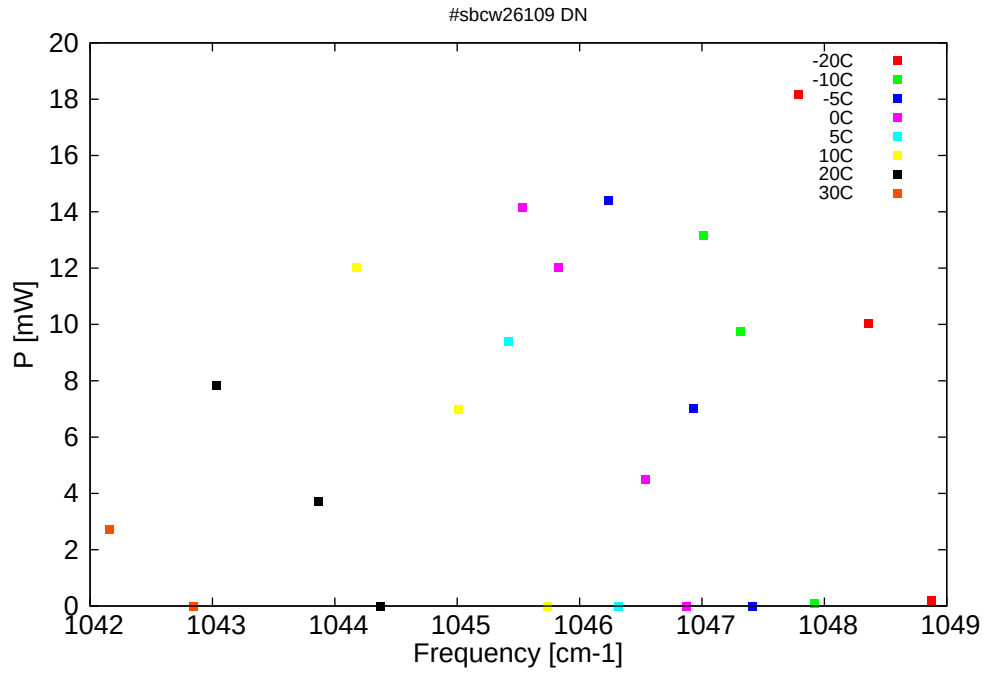


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

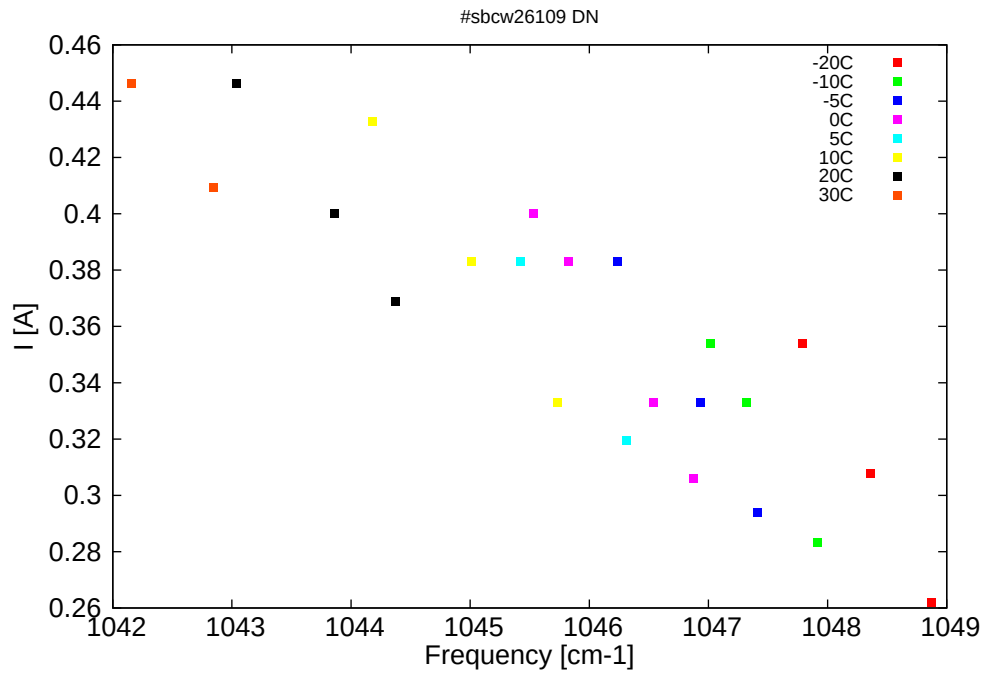


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
9534	1048.9	0.2	-20	10.09	0.262
9538.7	1048.4	10	-20	10.51	0.308
9543.9	1047.8	18.2	-20	10.93	0.354
9542.7	1047.9	0.1	-10	10.18	0.283
9548.2	1047.3	9.8	-10	10.64	0.333
9551	1047	13.2	-10	10.83	0.354
9547.3	1047.4	0	-5	10.23	0.294
9551.7	1046.9	7	-5	10.6	0.333
9558.1	1046.2	14.4	-5	11.05	0.383
9552.2	1046.9	0	0	10.3	0.306
9555.3	1046.5	4.5	0	10.55	0.333
9561.8	1045.8	12	0	11.01	0.383
9564.5	1045.5	14.1	0	11.16	0.4
9557.3	1046.3	0	5	10.38	0.32
9565.5	1045.4	9.4	5	10.96	0.383
9562.6	1045.7	0	10	10.47	0.333
9569.3	1045	7	10	10.92	0.383
9576.9	1044.2	12	10	11.39	0.433
9575.1	1044.4	0	20	10.71	0.369
9579.8	1043.9	3.7	20	11	0.4
9587.4	1043	7.8	20	11.44	0.446
9589.2	1042.8	0	30	11.02	0.409
9595.5	1042.2	2.7	30	11.37	0.446

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

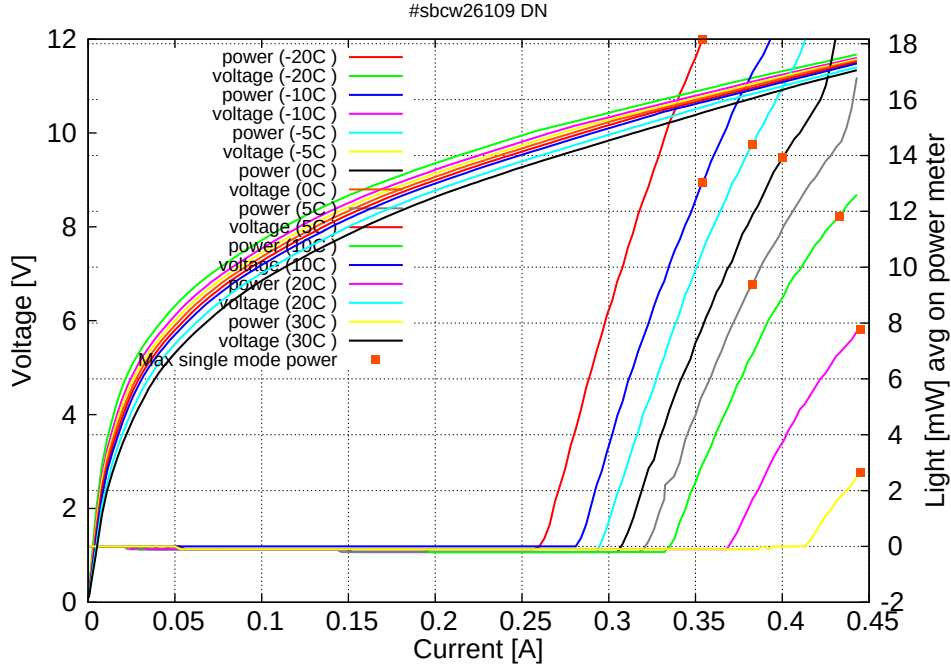


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.26A$ / $V_{th}=10.1V$ (2-wires measurements). Maximum operation current: 0.355A between -20C and -10C, 0.385A at -5C, 0.40A between 0C and 5C, 0.435A at 10C, 0.445A between 20C and 30C.

Figure 3: spectra at different temperatures for various DC currents

