

Datasheet for #sbcw14809 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.

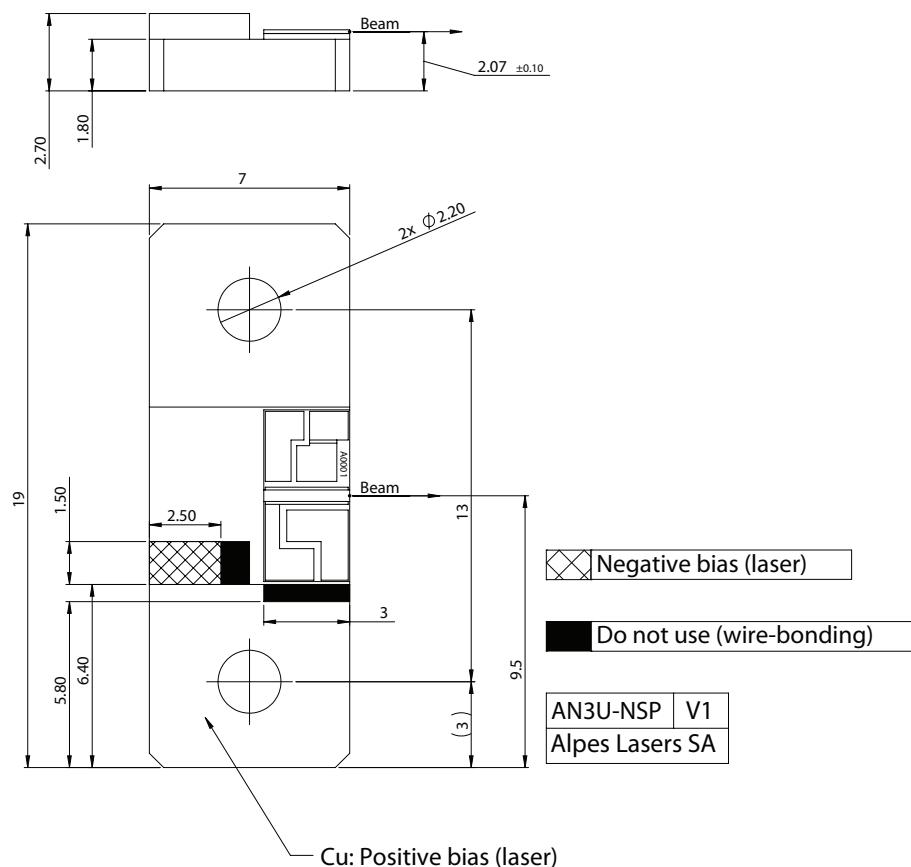


Figure 1: Mechanical and electrical interface for #sbcw14809 DN

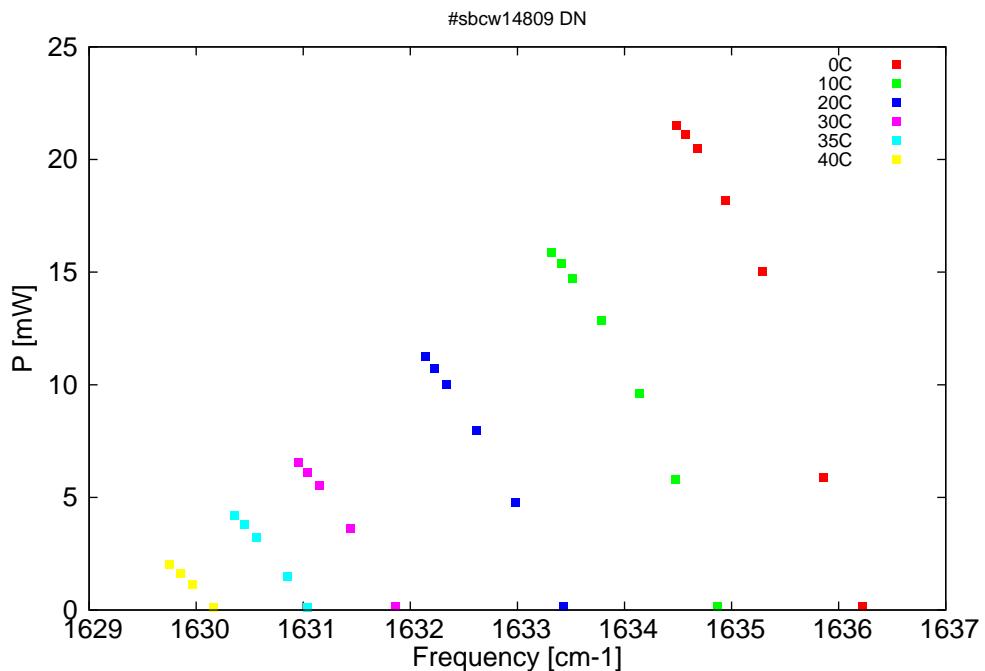


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

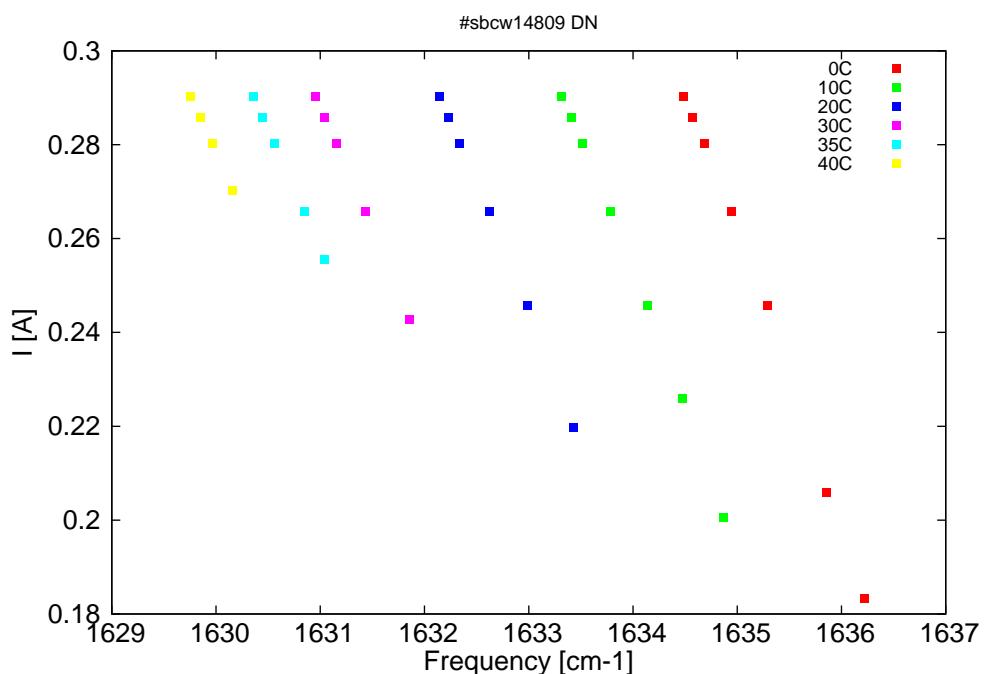


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm $^{-1}$]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
6111.6	1636.2	0.1	0	9.62	0.183
6113	1635.9	5.9	0	9.86	0.206
6115.1	1635.3	15	0	10.28	0.246
6116.4	1634.9	18.2	0	10.5	0.266
6117.4	1634.7	20.5	0	10.67	0.28
6117.8	1634.6	21.1	0	10.73	0.286
6118.1	1634.5	21.5	0	10.79	0.29
6116.7	1634.9	0.2	10	9.76	0.201
6118.2	1634.5	5.8	10	10.03	0.226
6119.4	1634.1	9.6	10	10.24	0.246
6120.8	1633.8	12.8	10	10.47	0.266
6121.8	1633.5	14.7	10	10.63	0.28
6122.2	1633.4	15.4	10	10.7	0.286
6122.5	1633.3	15.9	10	10.75	0.29
6122.1	1633.4	0.1	20	9.92	0.22
6123.8	1633	4.8	20	10.2	0.246
6125.1	1632.6	8	20	10.42	0.266
6126.2	1632.3	10	20	10.59	0.28
6126.6	1632.2	10.7	20	10.65	0.286
6126.9	1632.1	11.2	20	10.71	0.29
6128	1631.9	0.1	30	10.12	0.243
6129.6	1631.4	3.6	30	10.37	0.266
6130.6	1631.2	5.5	30	10.54	0.28
6131	1631	6.1	30	10.61	0.286
6131.4	1631	6.6	30	10.66	0.29
6131	1631	0.1	35	10.24	0.256
6131.8	1630.9	1.5	35	10.35	0.266
6132.9	1630.6	3.2	35	10.52	0.28
6133.3	1630.5	3.8	35	10.59	0.286
6133.6	1630.4	4.2	35	10.64	0.29
6134.4	1630.2	0.1	40	10.38	0.27
6135.1	1630	1.1	40	10.5	0.28
6135.5	1629.8	1.6	40	10.57	0.286
6135.9	1629.8	2	40	10.62	0.29

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

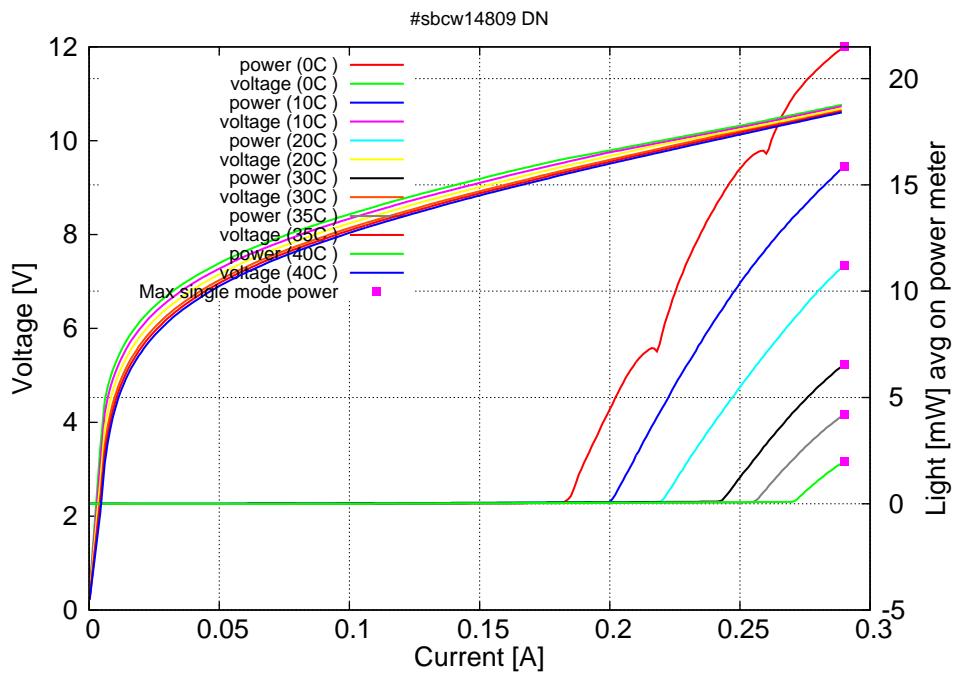


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at 0C: I_{th}=0.18A / V_{th}=9.6V (2-wires measurements). Maximum operation current: 0.29A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

