

Datasheet for #sbcw22485 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.

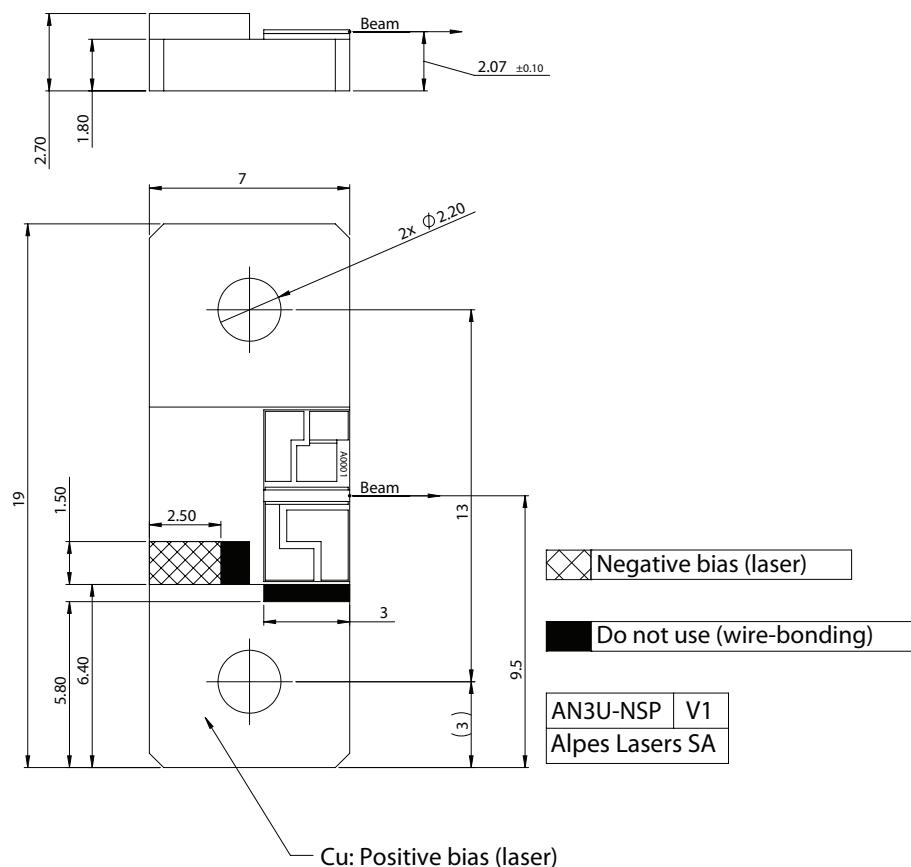


Figure 1: Mechanical and electrical interface for #sbcw22485 DN

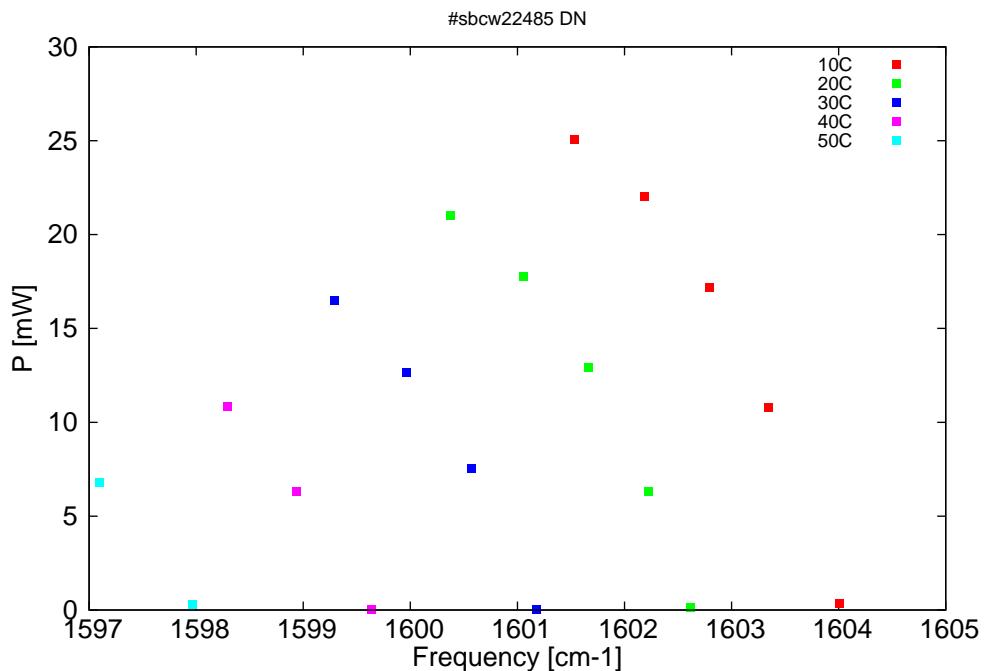


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

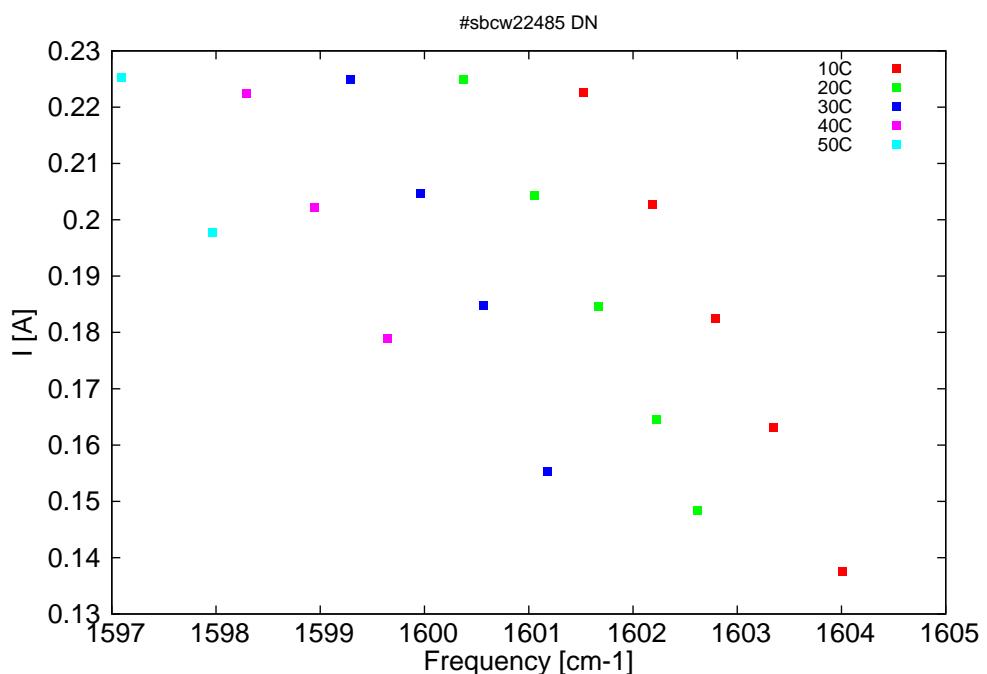


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm $^{-1}$]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
6234.4	1604	0.3	10	10.94	0.138
6237	1603.3	10.8	10	11.39	0.163
6239.1	1602.8	17.2	10	11.71	0.182
6241.5	1602.2	22	10	12.03	0.203
6244	1601.5	25.1	10	12.34	0.223
6239.8	1602.6	0.2	20	10.88	0.148
6241.3	1602.2	6.3	20	11.14	0.165
6243.5	1601.7	12.9	20	11.47	0.185
6245.9	1601.1	17.8	20	11.77	0.204
6248.5	1600.4	21	20	12.09	0.225
6245.4	1601.2	0	30	10.83	0.155
6247.8	1600.6	7.5	30	11.21	0.185
6250.1	1600	12.7	30	11.52	0.205
6252.8	1599.3	16.5	30	11.82	0.225
6251.4	1599.6	0.1	40	10.84	0.179
6254.1	1598.9	6.3	40	11.23	0.202
6256.7	1598.3	10.8	40	11.54	0.222
6258	1598	0.3	50	10.94	0.198
6261.4	1597.1	6.8	50	11.35	0.225

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

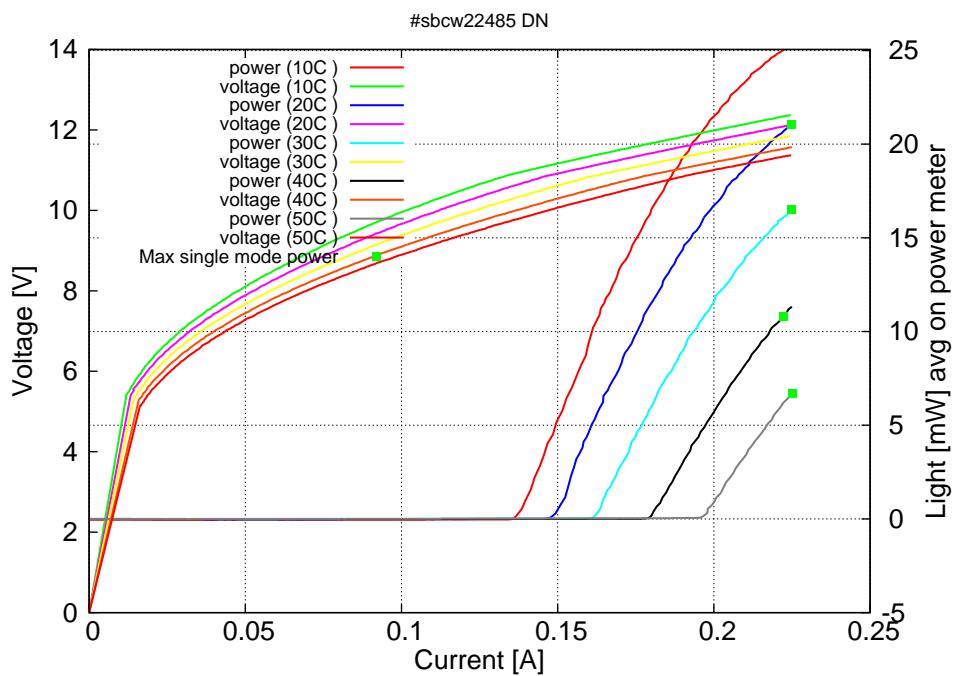


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.10A$ / $V_{th}=11.1V$ (2-wires measurements). Maximum operation current: 0.225A between 10C and 50C.

Figure 3: spectra at different temperatures for various DC currents

