

Datasheet for #sbcw24673 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.

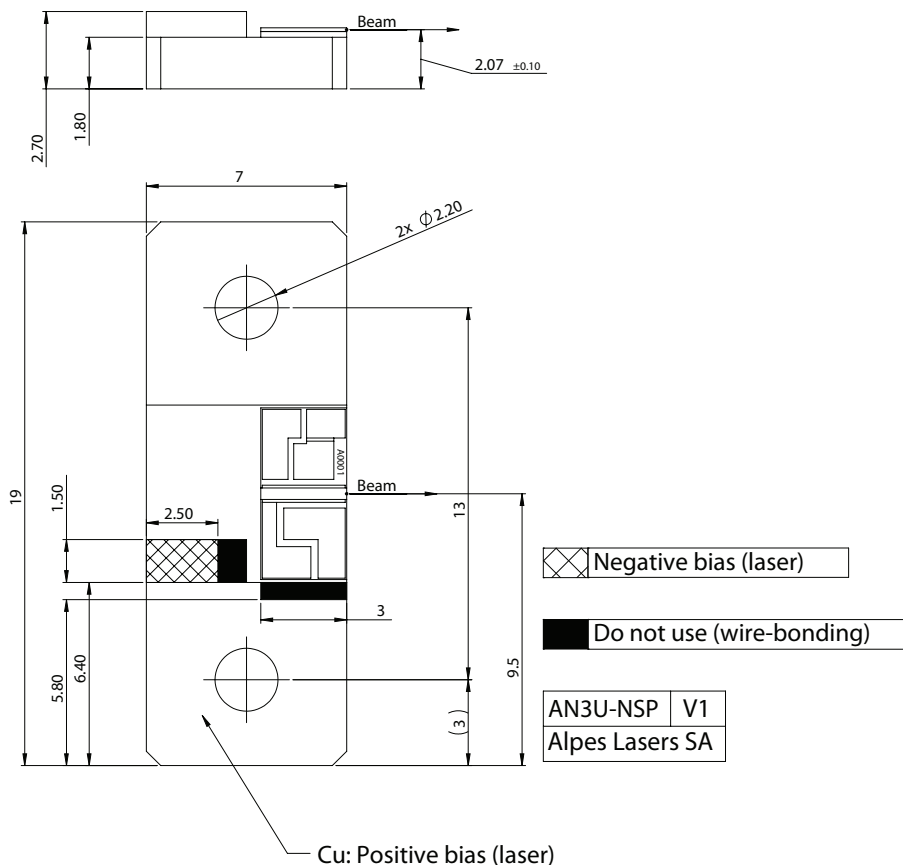


Figure 1: Mechanical and electrical interface for #sbcw24673 DN

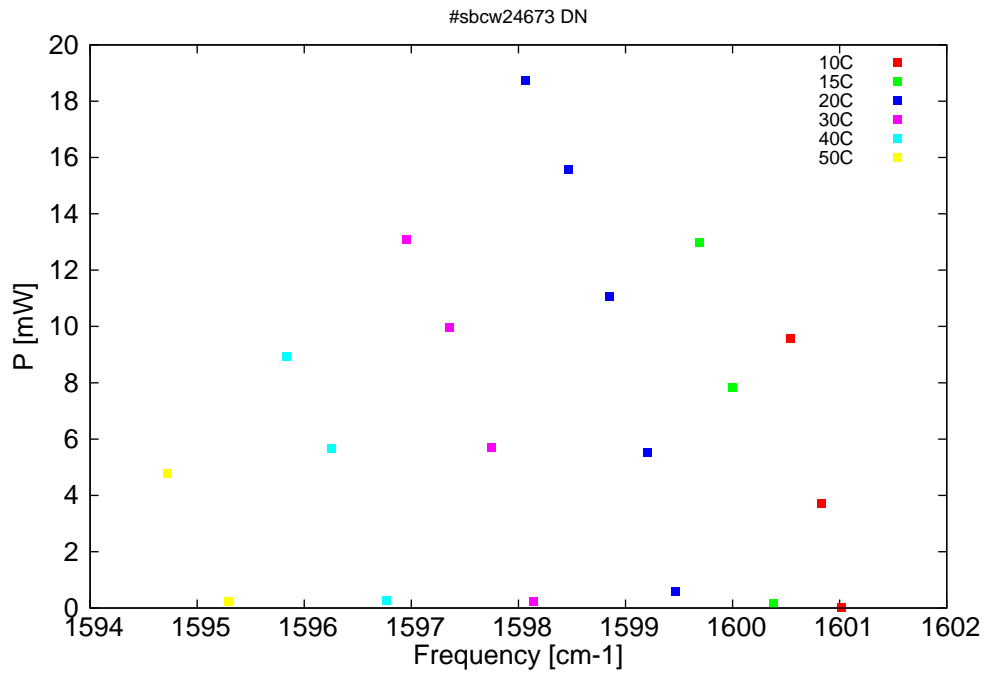


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

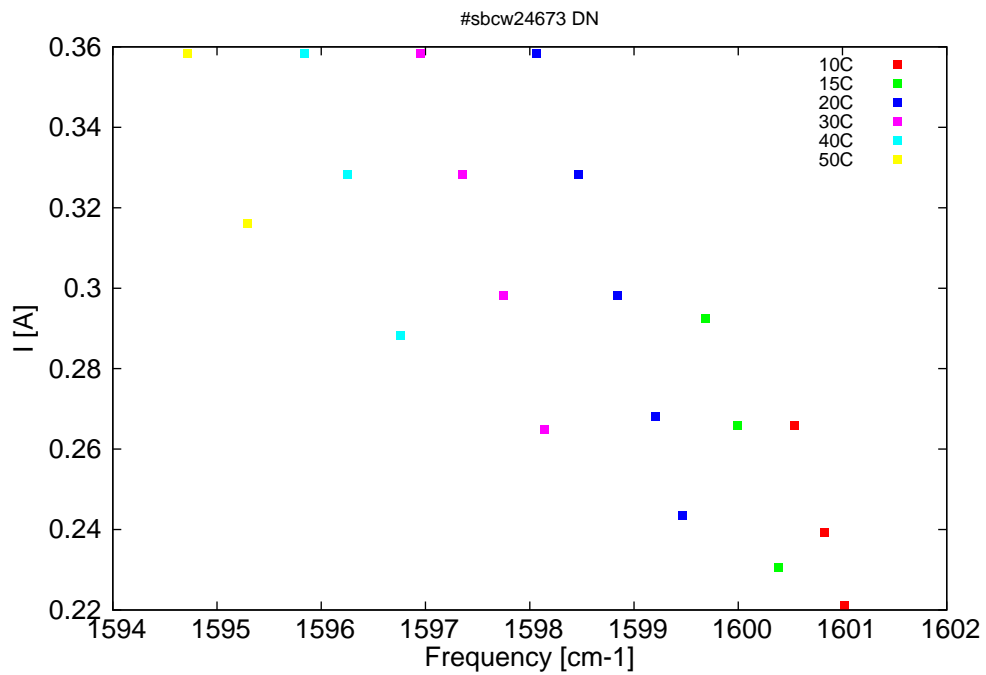


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm^{-1}]	P[mW]	Temp[$^{\circ}\text{C}$]	U_{LASER} [V]	I[A]
6246	1601	0	10	9.56	0.221
6246.8	1600.8	3.7	10	9.72	0.239
6247.9	1600.5	9.6	10	9.95	0.266
6248.5	1600.4	0.2	15	9.6	0.231
6250	1600	7.8	15	9.91	0.266
6251.2	1599.7	13	15	10.14	0.292
6252.1	1599.5	0.6	20	9.66	0.244
6253.1	1599.2	5.5	20	9.86	0.268
6254.5	1598.8	11.1	20	10.13	0.298
6256	1598.5	15.6	20	10.38	0.328
6257.6	1598.1	18.7	20	10.65	0.358
6257.3	1598.1	0.2	30	9.76	0.265
6258.8	1597.7	5.7	30	10.05	0.298
6260.3	1597.4	10	30	10.31	0.328
6261.9	1597	13.1	30	10.57	0.358
6262.7	1596.8	0.3	40	9.89	0.288
6264.7	1596.3	5.7	40	10.23	0.328
6266.3	1595.8	8.9	40	10.49	0.358
6268.4	1595.3	0.2	50	10.05	0.316
6270.7	1594.7	4.8	50	10.41	0.358

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

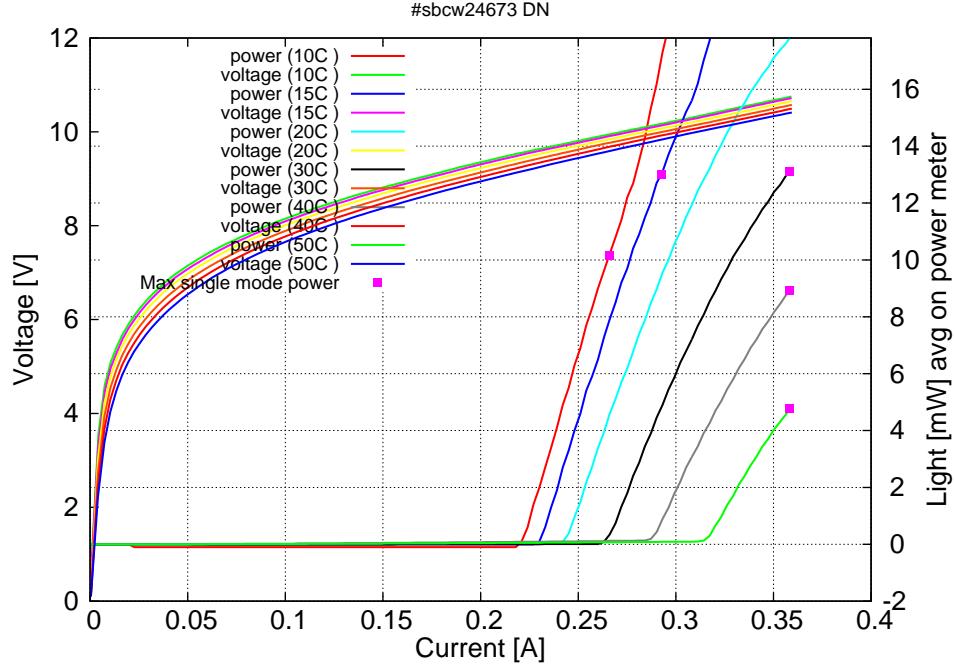


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

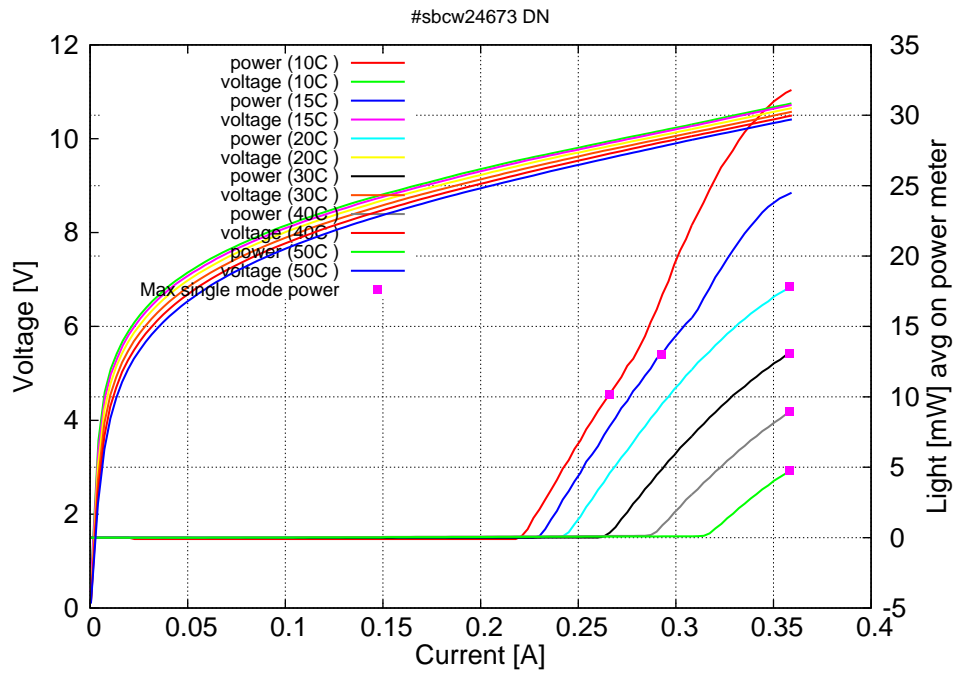


Figure 5: voltage and avg power vs current in continuous-wave operation (including the multimode region)

Note: at 10C: $I_{th}=0.22A$ / $V_{th}=9.5V$ (2-wires measurements). Maximum operation current: 0.27A at 10C, 0.29A at 15C, 0.36A between 20C and 50C.

Figure 4: spectra at different temperatures for various DC currents

