

Datasheet for #sbcw19886 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.

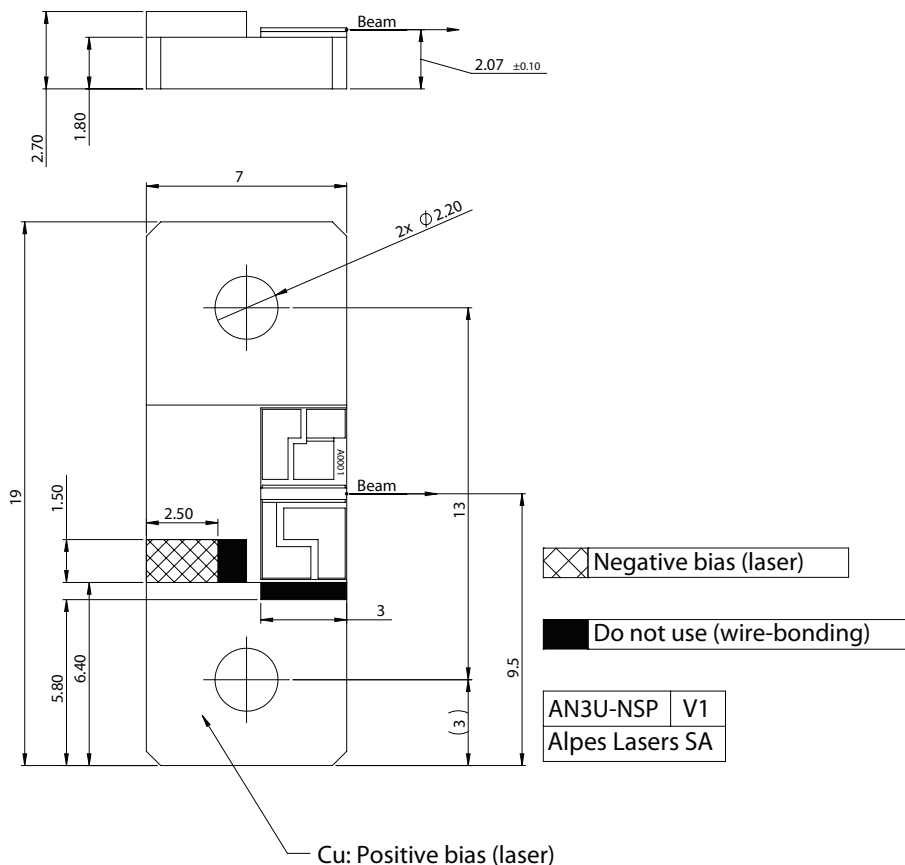


Figure 1: Mechanical and electrical interface for #sbcw19886 DN

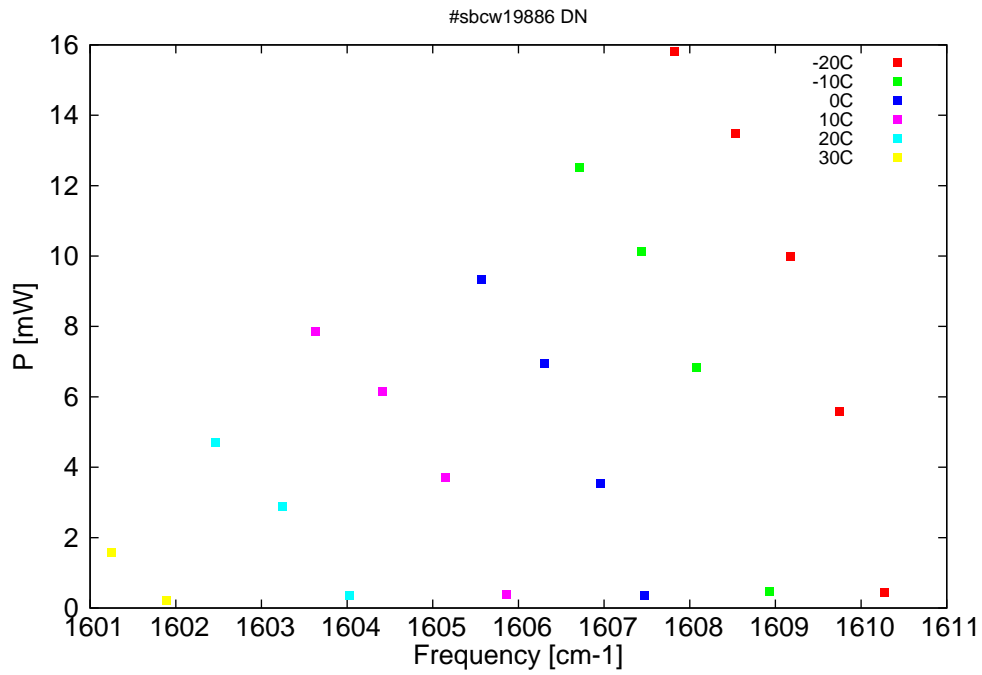


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

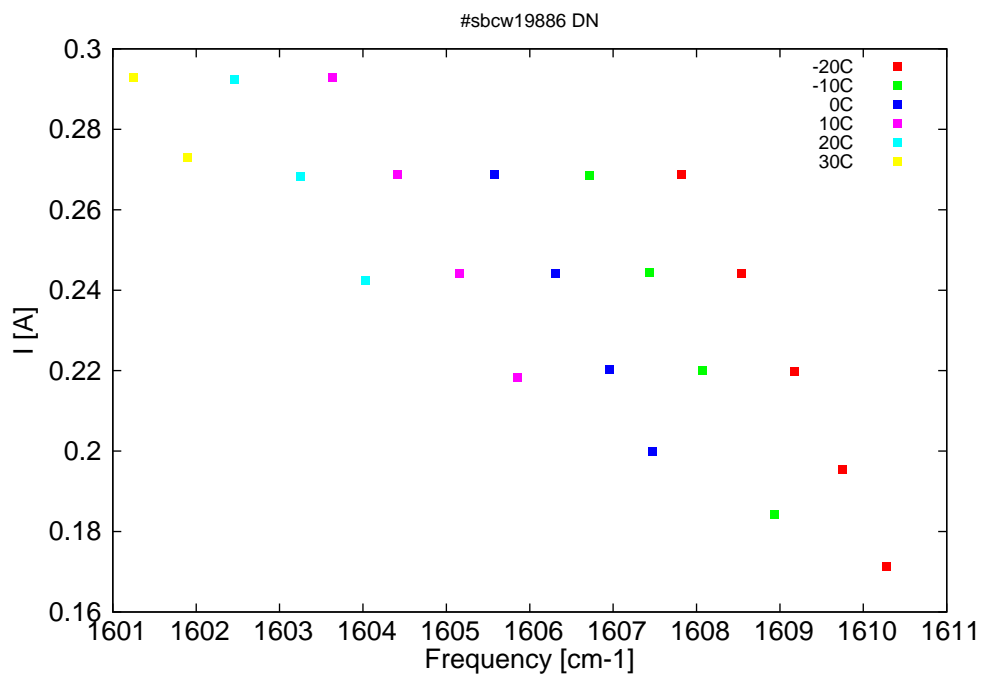


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
6210.1	1610.3	0.4	-20	10.04	0.171
6212.1	1609.8	5.6	-20	10.4	0.195
6214.4	1609.2	10	-20	10.76	0.22
6216.8	1608.5	13.5	-20	11.14	0.244
6219.6	1607.8	15.8	-20	11.54	0.269
6215.3	1608.9	0.5	-10	10.15	0.184
6218.6	1608.1	6.8	-10	10.68	0.22
6221.1	1607.4	10.1	-10	11.06	0.244
6223.9	1606.7	12.5	-10	11.45	0.269
6221	1607.5	0.3	0	10.3	0.2
6222.9	1607	3.5	0	10.6	0.22
6225.5	1606.3	7	0	10.97	0.244
6228.3	1605.6	9.3	0	11.37	0.269
6227.2	1605.9	0.4	10	10.5	0.218
6229.9	1605.2	3.7	10	10.89	0.244
6232.8	1604.4	6.2	10	11.28	0.269
6235.8	1603.6	7.9	10	11.67	0.293
6234.3	1604	0.3	20	10.78	0.242
6237.3	1603.2	2.9	20	11.18	0.268
6240.4	1602.5	4.7	20	11.56	0.292
6242.6	1601.9	0.2	30	11.17	0.273
6245.1	1601.2	1.6	30	11.47	0.293

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

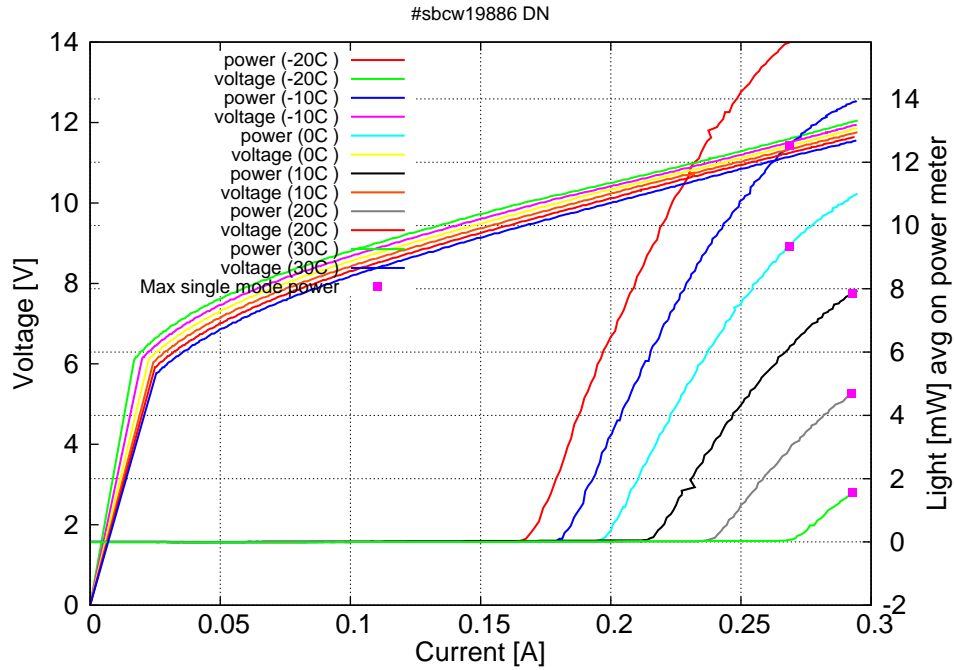


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.17A$ / $V_{th}=10.0V$ (2-wires measurements). Maximum operation current: 0.27A between -20C and 0C, 0.295A between 10C and 30C.

Figure 3: spectra at different temperatures for various DC currents

