

Datasheet for #sbcw9037 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.

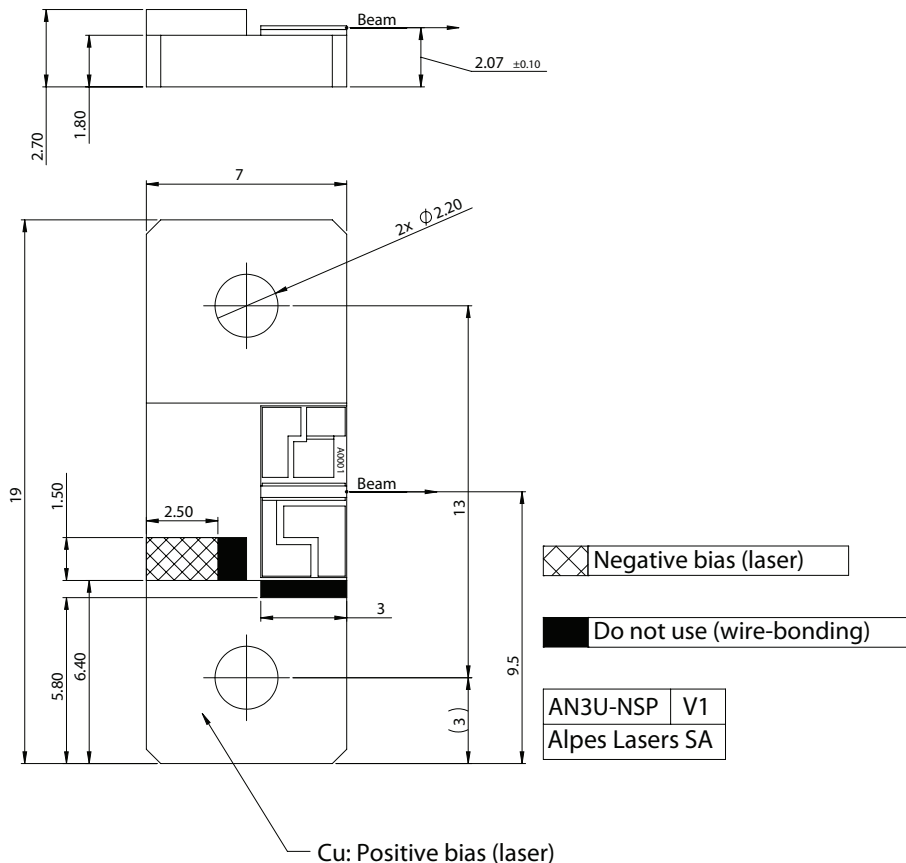


Figure 1: Mechanical and electrical interface for #sbcw9037 DN

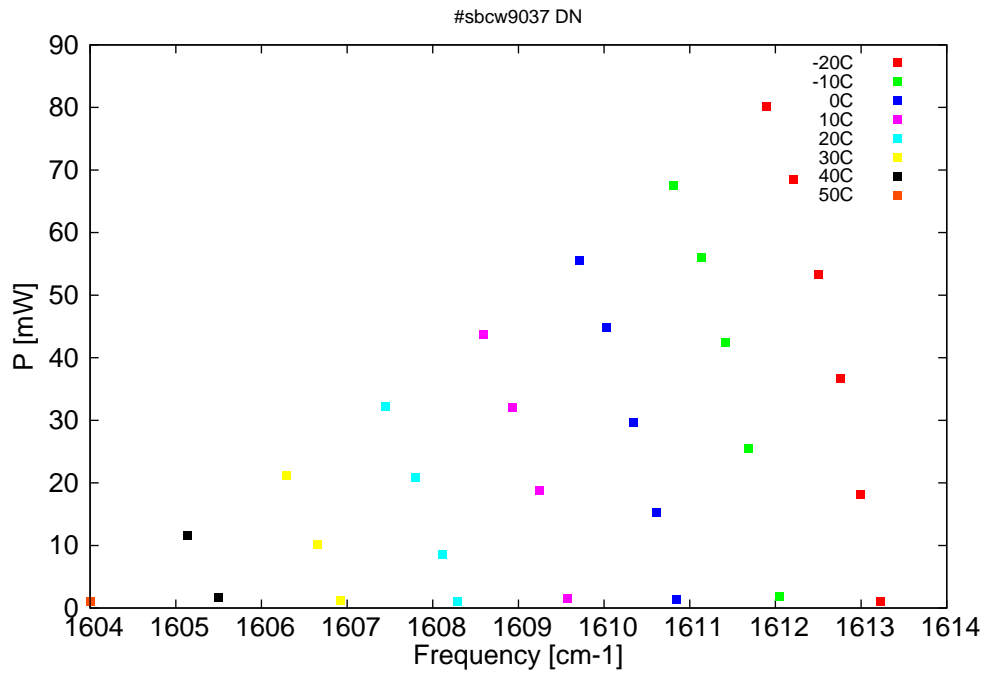


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

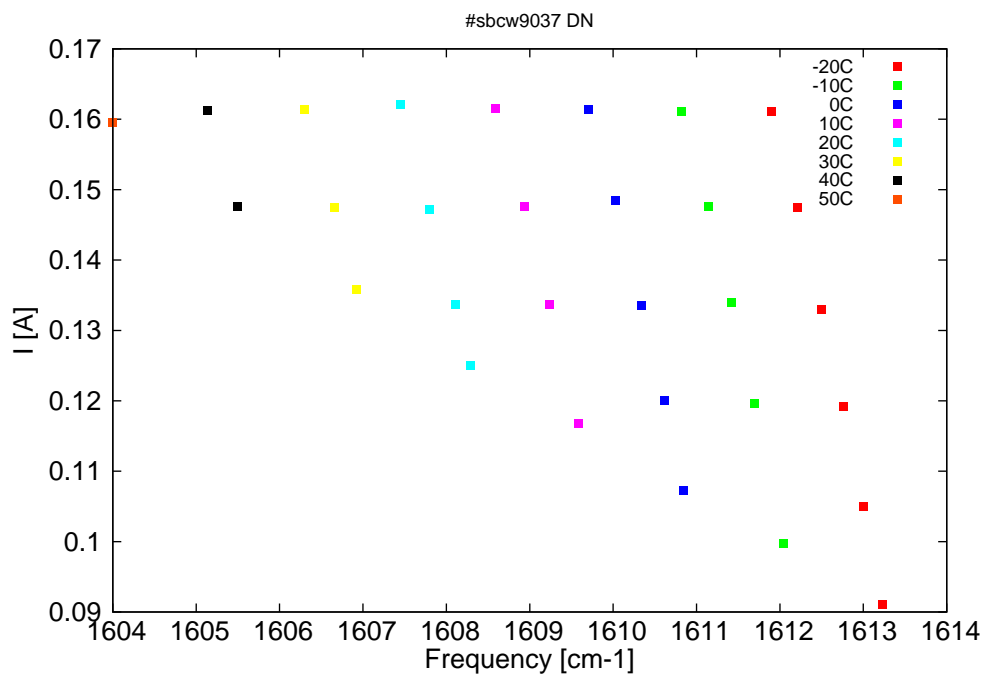


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
6198.8	1613.2	1.1	-20	9.51	0.091
6199.6	1613	18.1	-20	9.76	0.105
6200.6	1612.8	36.7	-20	10.01	0.119
6201.6	1612.5	53.3	-20	10.25	0.133
6202.7	1612.2	68.5	-20	10.5	0.147
6203.9	1611.9	80.1	-20	10.76	0.161
6203.3	1612	1.9	-10	9.59	0.1
6204.7	1611.7	25.6	-10	9.95	0.12
6205.7	1611.4	42.3	-10	10.2	0.134
6206.8	1611.1	56	-10	10.44	0.148
6208	1610.8	67.6	-10	10.7	0.161
6207.9	1610.8	1.3	0	9.66	0.107
6208.8	1610.6	15.3	0	9.88	0.12
6209.9	1610.3	29.7	0	10.13	0.134
6211.1	1610	44.8	0	10.39	0.148
6212.3	1609.7	55.6	0	10.65	0.161
6212.8	1609.6	1.5	10	9.77	0.117
6214.1	1609.2	18.9	10	10.07	0.134
6215.3	1608.9	32.1	10	10.32	0.148
6216.6	1608.6	43.6	10	10.58	0.161
6217.8	1608.3	1	20	9.86	0.125
6218.5	1608.1	8.6	20	10.01	0.134
6219.7	1607.8	20.9	20	10.26	0.147
6221	1607.4	32.3	20	10.53	0.162
6223.1	1606.9	1.2	30	10.01	0.136
6224.1	1606.7	10.1	30	10.22	0.148
6225.5	1606.3	21.2	30	10.48	0.161
6228.6	1605.5	1.6	40	10.17	0.148
6230	1605.1	11.6	40	10.43	0.161
6234.4	1604	1.1	50	10.35	0.16

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

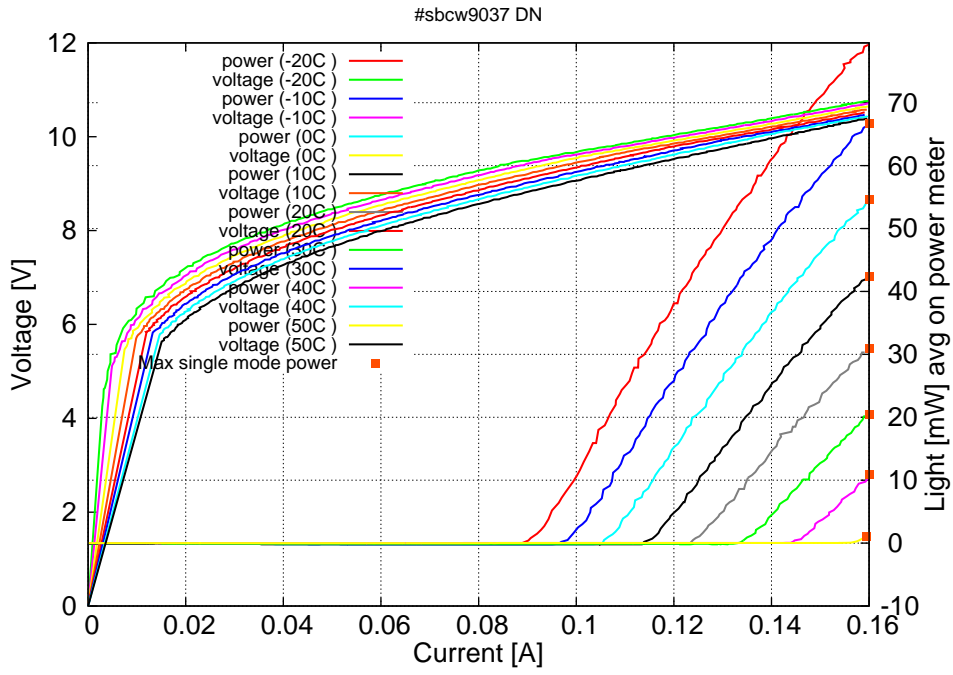


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.09A$ / $V_{th}=9.5V$ (2-wires measurements). Maximum operation current: 0.16A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

