

Datasheet for #sbcw25540 DN

Recommendations:

Please read the User Manual and have a look at the FAQ at <https://www.alpeslasers.ch/resources/#faq>

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.

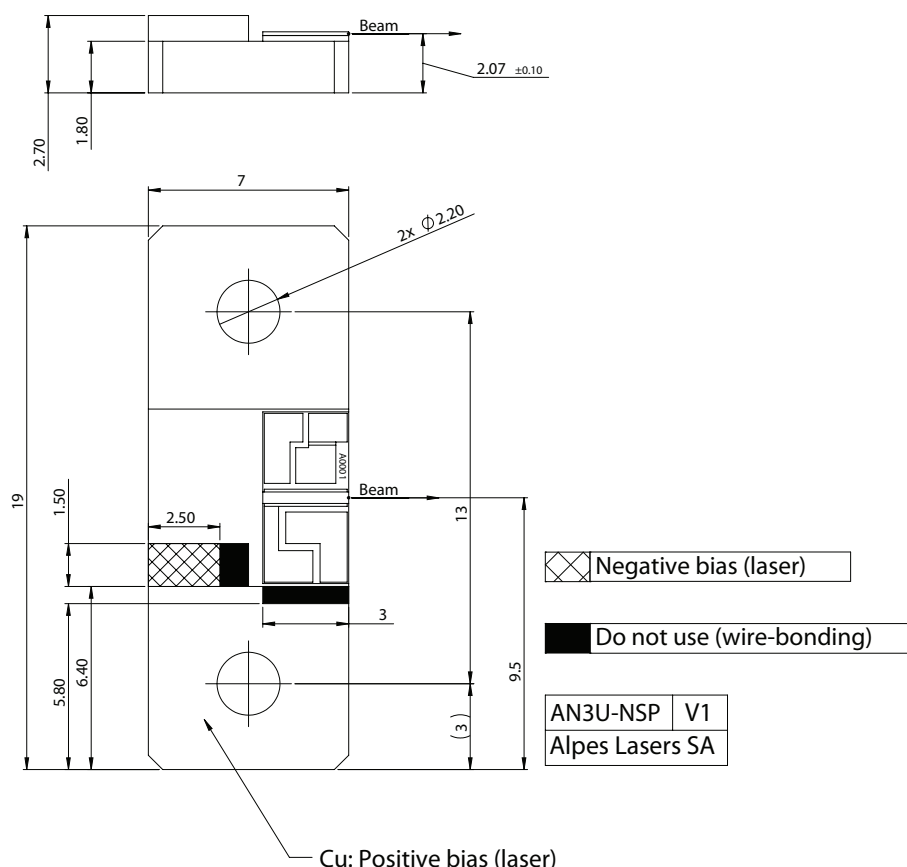


Figure 1: Mechanical and electrical interface for #sbcw25540 DN

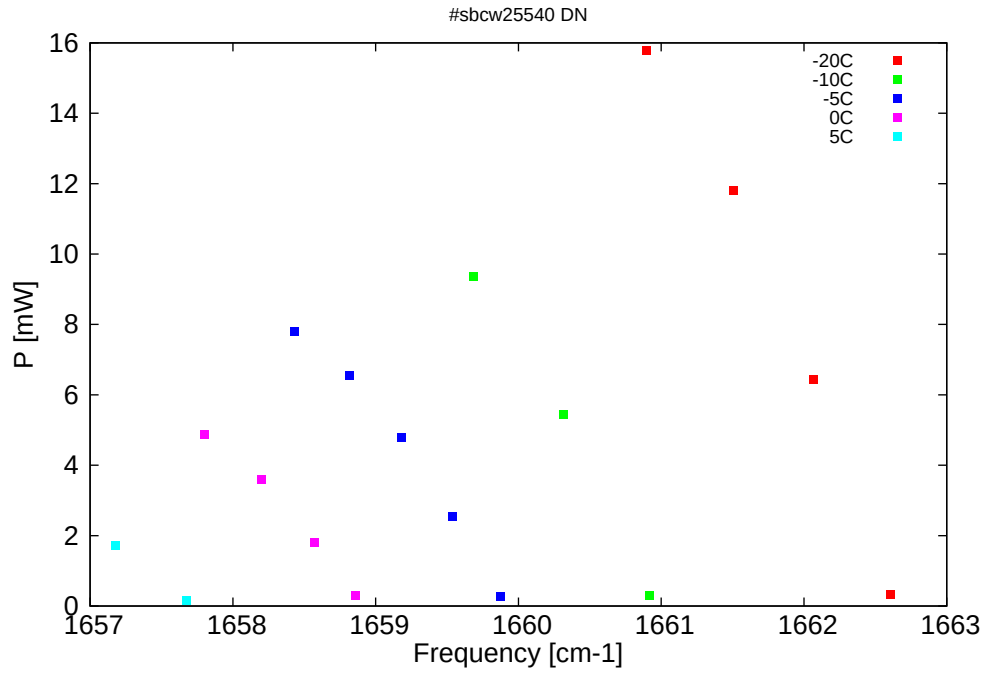


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

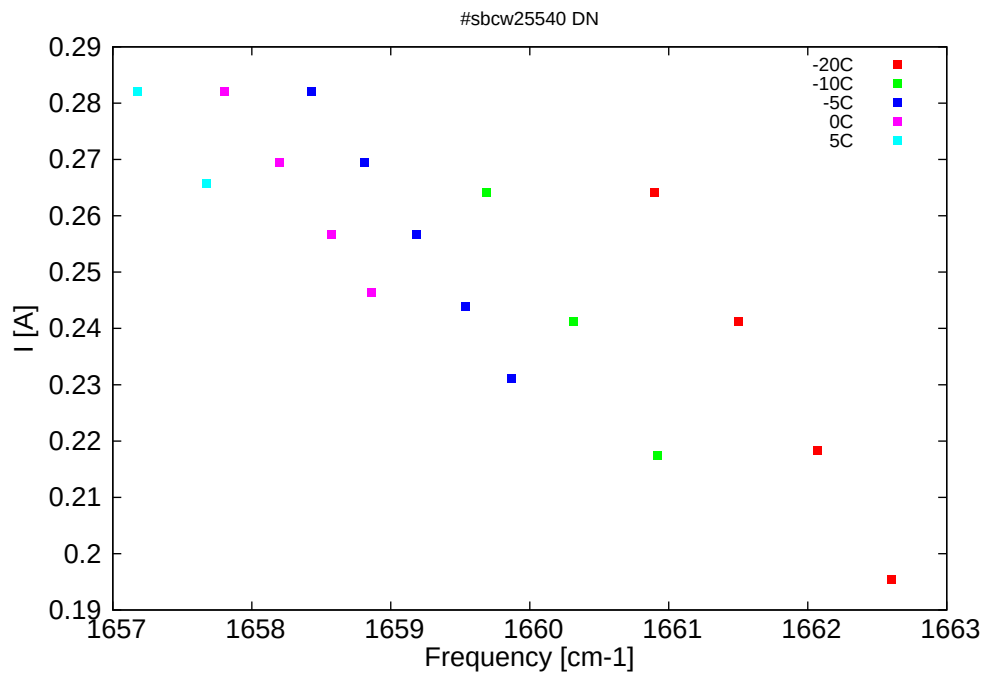


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
6014.7	1662.6	0.3	-20	10.22	0.196
6016.6	1662.1	6.4	-20	10.48	0.218
6018.6	1661.5	11.8	-20	10.73	0.241
6020.9	1660.9	15.8	-20	10.99	0.264
6020.8	1660.9	0.3	-10	10.39	0.217
6022.9	1660.3	5.4	-10	10.66	0.241
6025.2	1659.7	9.4	-10	10.91	0.264
6024.6	1659.9	0.3	-5	10.49	0.231
6025.8	1659.5	2.5	-5	10.63	0.244
6027.1	1659.2	4.8	-5	10.77	0.257
6028.4	1658.8	6.6	-5	10.91	0.269
6029.8	1658.4	7.8	-5	11.06	0.282
6028.2	1658.9	0.3	0	10.62	0.246
6029.3	1658.6	1.8	0	10.73	0.257
6030.6	1658.2	3.6	0	10.88	0.269
6032.1	1657.8	4.9	0	11.03	0.282
6032.5	1657.7	0.1	5	10.8	0.266
6034.4	1657.2	1.7	5	10.99	0.282

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

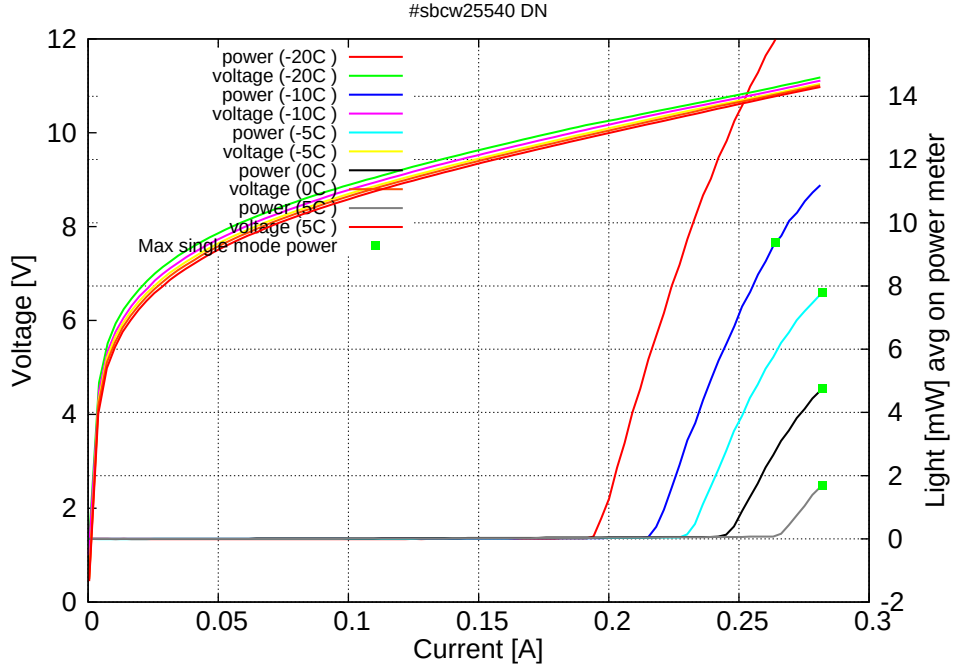


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20°C: $I_{th}=0.19A$ / $V_{th}=10.2V$ (2-wires measurements). Maximum operation current: 0.282A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

