

Datasheet for #sbcw20365 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 bias and positive bias on the specific zones drawn below. 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.

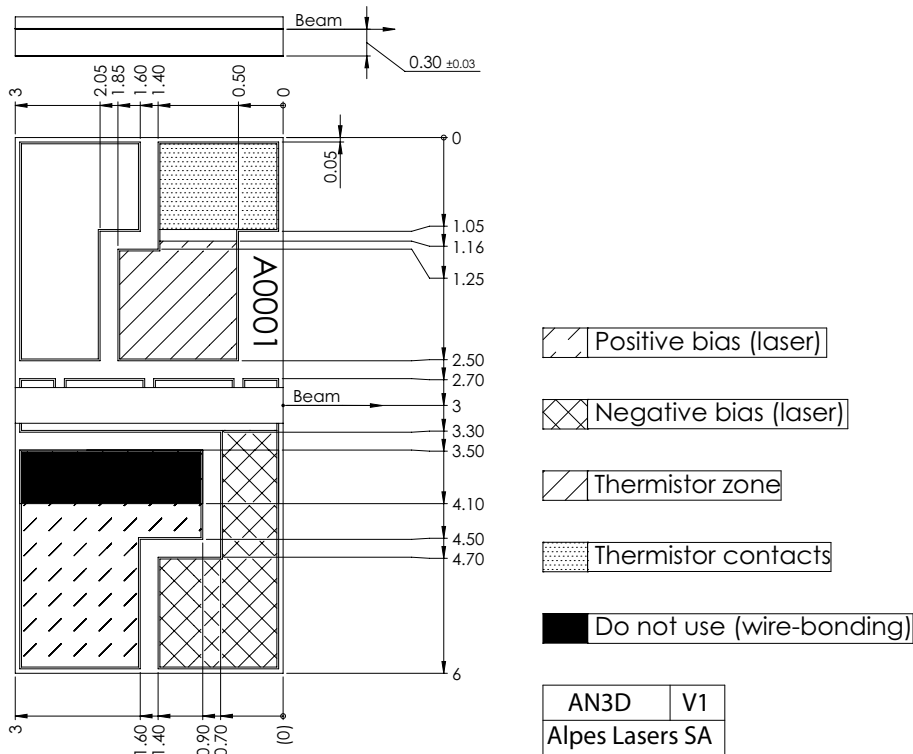


Figure 1: Mechanical and electrical interface for #sbcw20365 DN (please note that AlN submount numbering is P4130)

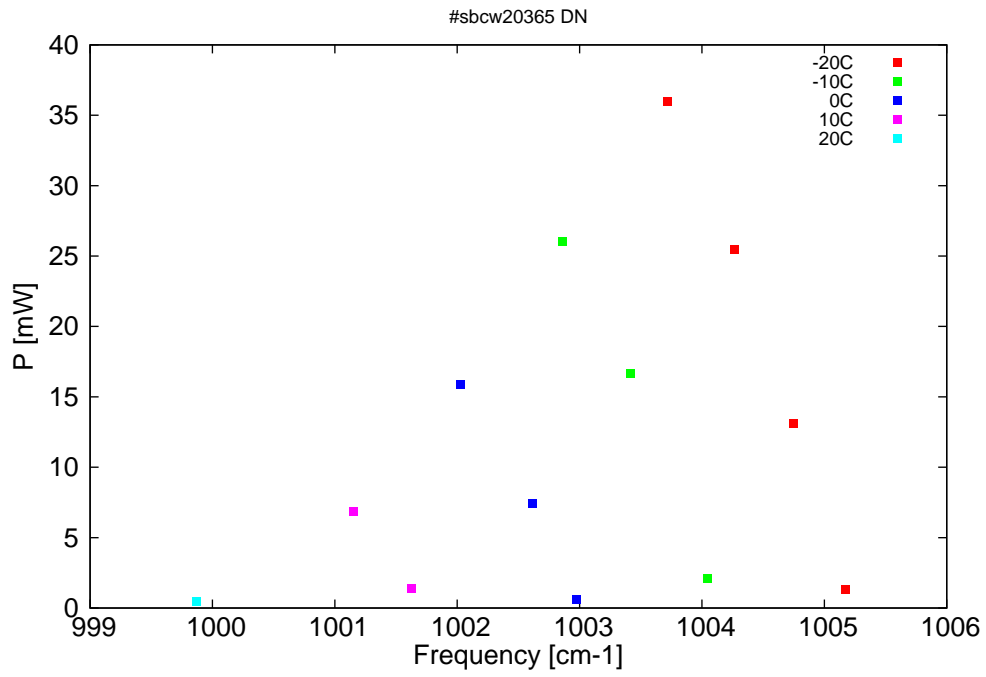


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

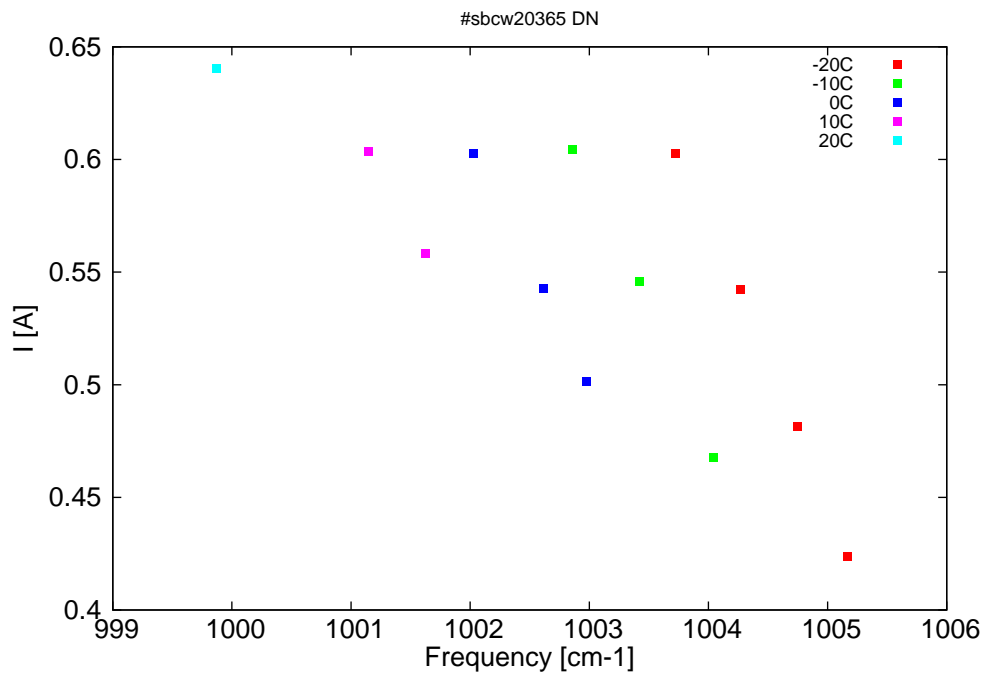


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
9948.6	1005.2	1.3	-20	8.69	0.424
9952.7	1004.8	13.1	-20	8.99	0.481
9957.5	1004.3	25.5	-20	9.33	0.542
9962.9	1003.7	36	-20	9.71	0.603
9959.7	1004	2.1	-10	8.9	0.468
9965.9	1003.4	16.6	-10	9.35	0.546
9971.5	1002.9	26	-10	9.73	0.604
9970.3	1003	0.6	0	9.08	0.501
9973.9	1002.6	7.4	0	9.32	0.543
9979.8	1002	15.9	0	9.71	0.603
9983.8	1001.6	1.4	10	9.42	0.558
9988.5	1001.1	6.9	10	9.72	0.603
10001.3	999.9	0.5	20	10	0.64

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

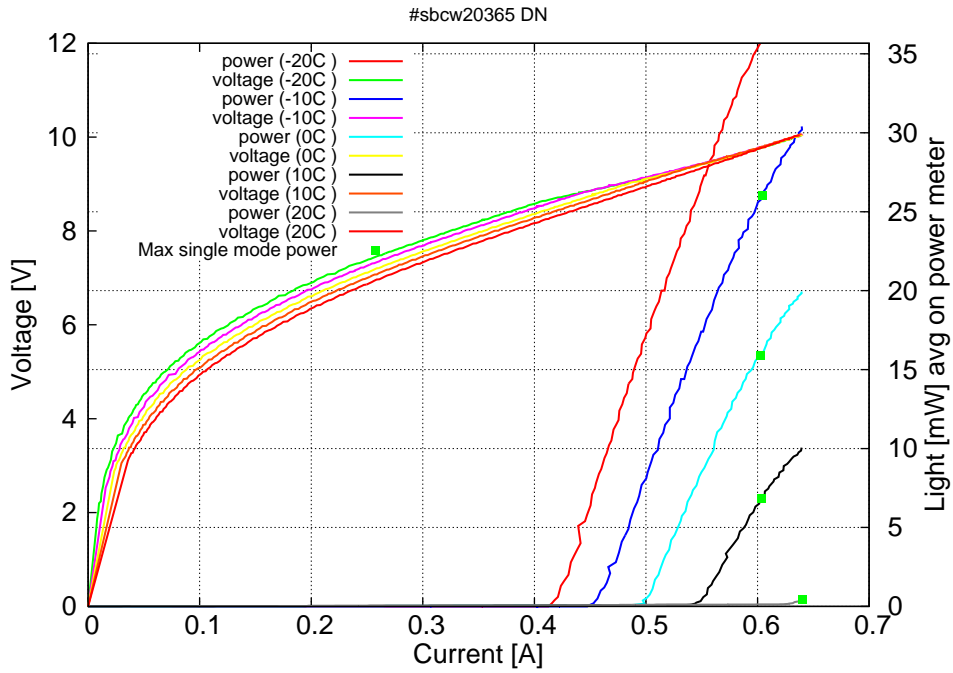


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.41A$ / $V_{th}=8.7V$ (2-wires measurements). Maximum operation current: 0.64A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

