

Datasheet for #sbcw22364 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 #sbcw22364 DN (please note that AlN submount numbering is A0P7D)

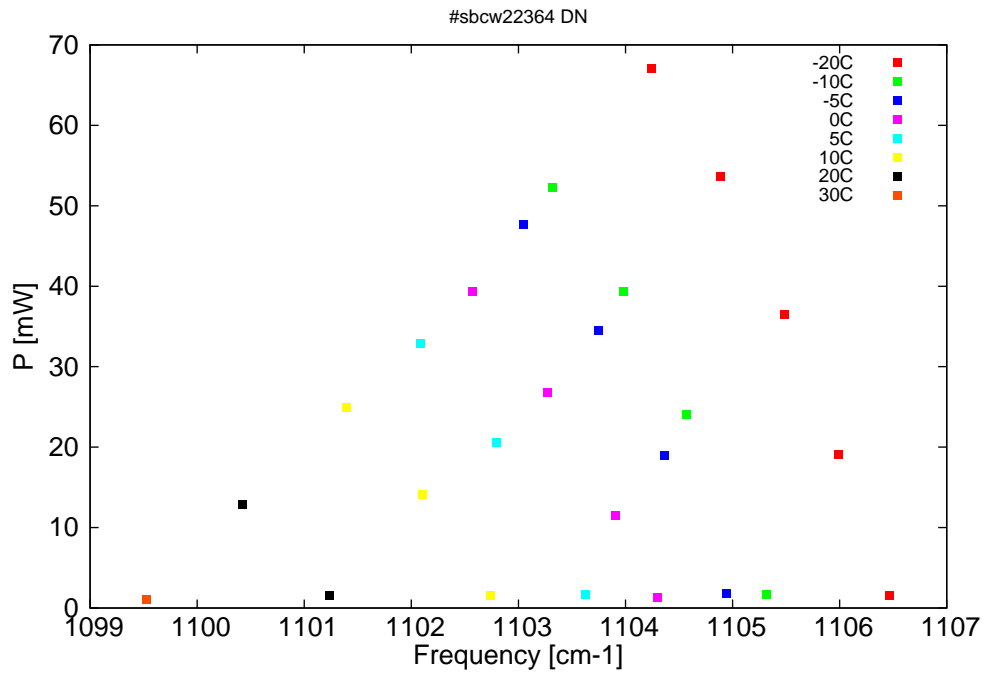


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

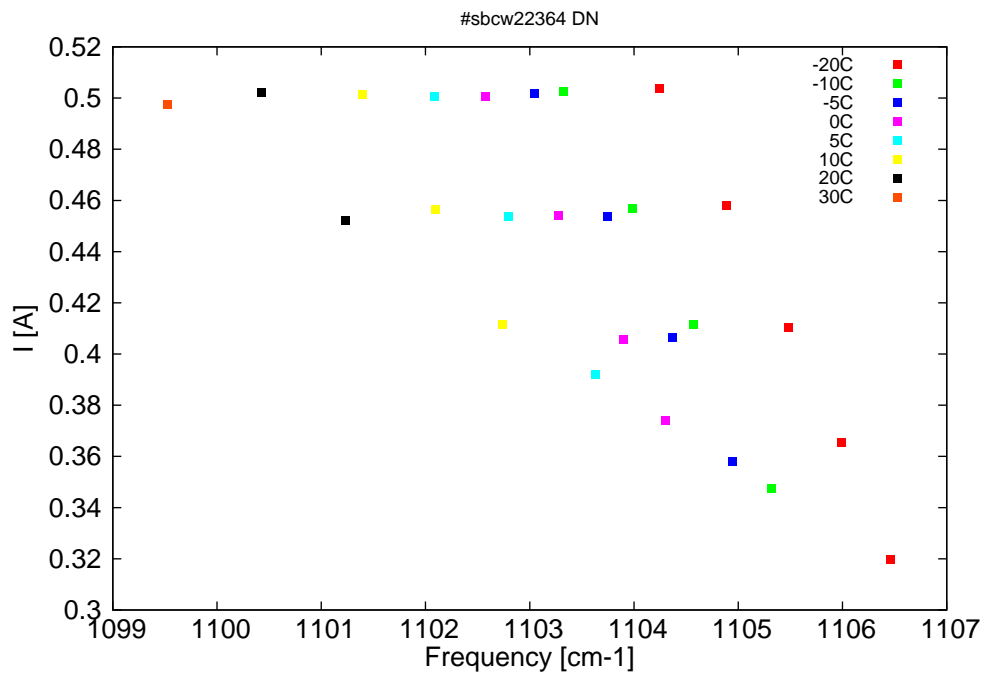


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
9037.8	1106.5	1.5	-20	9.9	0.32
9041.7	1106	19.1	-20	10.27	0.366
9045.8	1105.5	36.5	-20	10.62	0.41
9050.7	1104.9	53.6	-20	11	0.458
9055.9	1104.2	67.1	-20	11.38	0.504
9047.2	1105.3	1.6	-10	10.04	0.347
9053.3	1104.6	24	-10	10.56	0.412
9058.1	1104	39.4	-10	10.92	0.457
9063.6	1103.3	52.3	-10	11.31	0.503
9050.2	1104.9	1.8	-5	10.15	0.358
9055	1104.4	18.9	-5	10.55	0.406
9060	1103.7	34.5	-5	10.94	0.454
9065.8	1103	47.7	-5	11.35	0.502
9055.5	1104.3	1.3	0	10.24	0.374
9058.8	1103.9	11.5	0	10.5	0.406
9064	1103.3	26.8	0	10.9	0.454
9069.7	1102.6	39.3	0	11.3	0.501
9061	1103.6	1.7	5	10.35	0.392
9067.8	1102.8	20.6	5	10.86	0.454
9073.7	1102.1	32.9	5	11.27	0.501
9068.3	1102.7	1.5	10	10.44	0.411
9073.6	1102.1	14.1	10	10.82	0.456
9079.4	1101.4	24.9	10	11.2	0.501
9080.7	1101.2	1.5	20	10.73	0.452
9087.4	1100.4	12.9	20	11.16	0.502
9094.8	1099.5	1.1	30	11.08	0.497

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

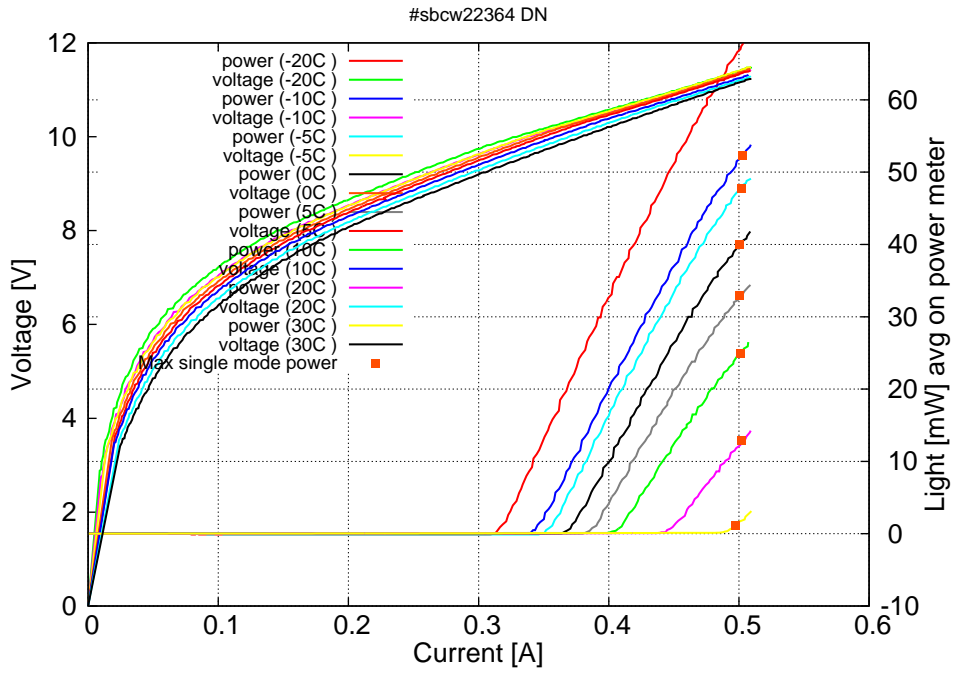


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.31A$ / $V_{th}=9.8V$ (2-wires measurements). Maximum operation current: 0.51A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

