

Datasheet for #sbcw22566 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 #sbcw22566 DN

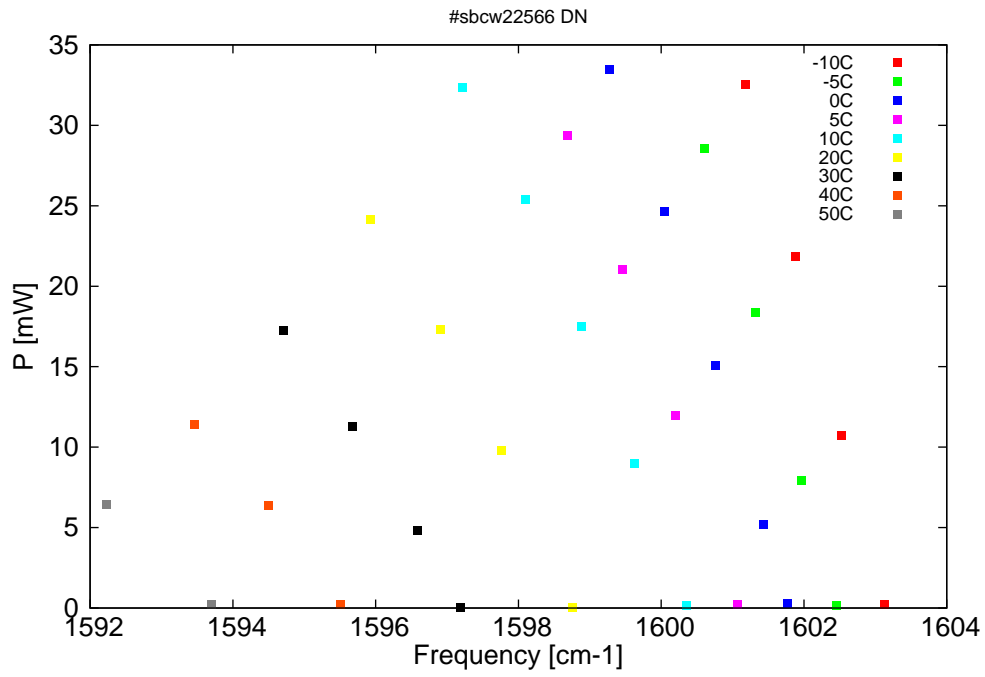


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

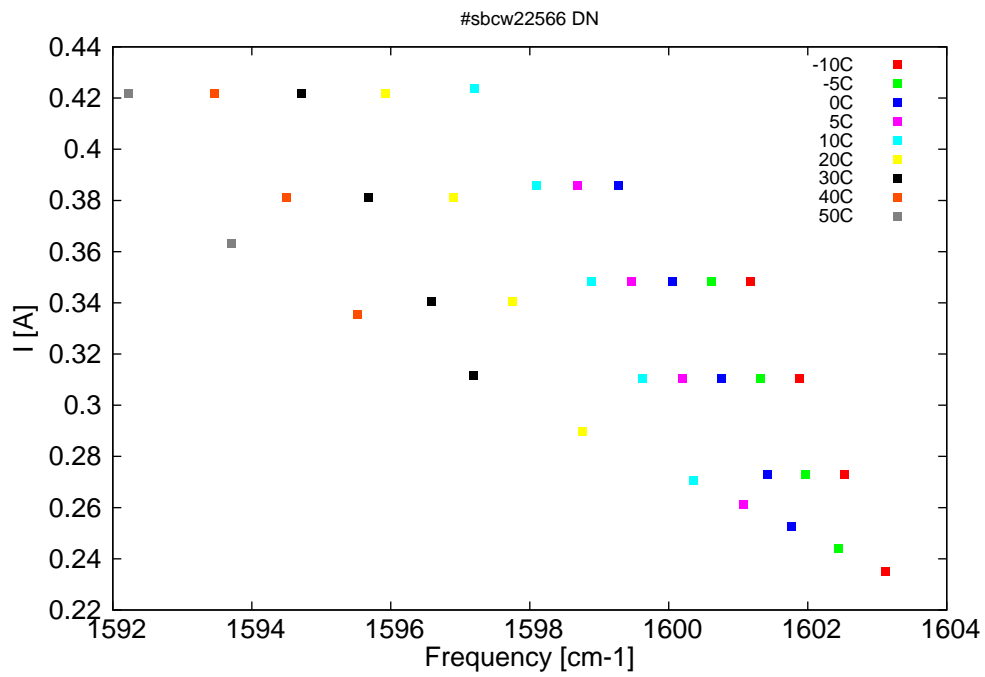


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
6237.8	1603.1	0.2	-10	8.62	0.235
6240.1	1602.5	10.7	-10	8.88	0.273
6242.7	1601.9	21.9	-10	9.14	0.311
6245.4	1601.2	32.5	-10	9.4	0.348
6240.4	1602.5	0.1	-5	8.65	0.244
6242.3	1602	7.9	-5	8.85	0.273
6244.8	1601.3	18.4	-5	9.11	0.311
6247.6	1600.6	28.6	-5	9.37	0.348
6243.1	1601.8	0.3	0	8.67	0.253
6244.4	1601.4	5.2	0	8.82	0.273
6247	1600.8	15.1	0	9.08	0.311
6249.8	1600	24.7	0	9.34	0.348
6252.8	1599.3	33.5	0	9.61	0.386
6245.8	1601.1	0.2	5	8.7	0.261
6249.2	1600.2	12	5	9.04	0.311
6252.1	1599.5	21	5	9.31	0.348
6255.1	1598.7	29.4	5	9.59	0.386
6248.6	1600.4	0.1	10	8.73	0.27
6251.5	1599.6	9	10	9.01	0.311
6254.3	1598.9	17.5	10	9.28	0.348
6257.5	1598.1	25.4	10	9.56	0.386
6260.9	1597.2	32.4	10	9.85	0.424
6254.9	1598.8	0.1	20	8.78	0.29
6258.8	1597.8	9.8	20	9.14	0.341
6262.1	1596.9	17.3	20	9.44	0.381
6265.9	1595.9	24.2	20	9.75	0.422
6261	1597.2	0.1	30	8.87	0.312
6263.3	1596.6	4.8	30	9.08	0.341
6266.9	1595.7	11.3	30	9.39	0.381
6270.7	1594.7	17.3	30	9.69	0.422
6267.6	1595.5	0.2	40	8.99	0.336
6271.6	1594.5	6.4	40	9.33	0.381
6275.6	1593.5	11.4	40	9.64	0.422
6274.7	1593.7	0.2	50	9.13	0.363
6280.5	1592.2	6.4	50	9.58	0.422

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

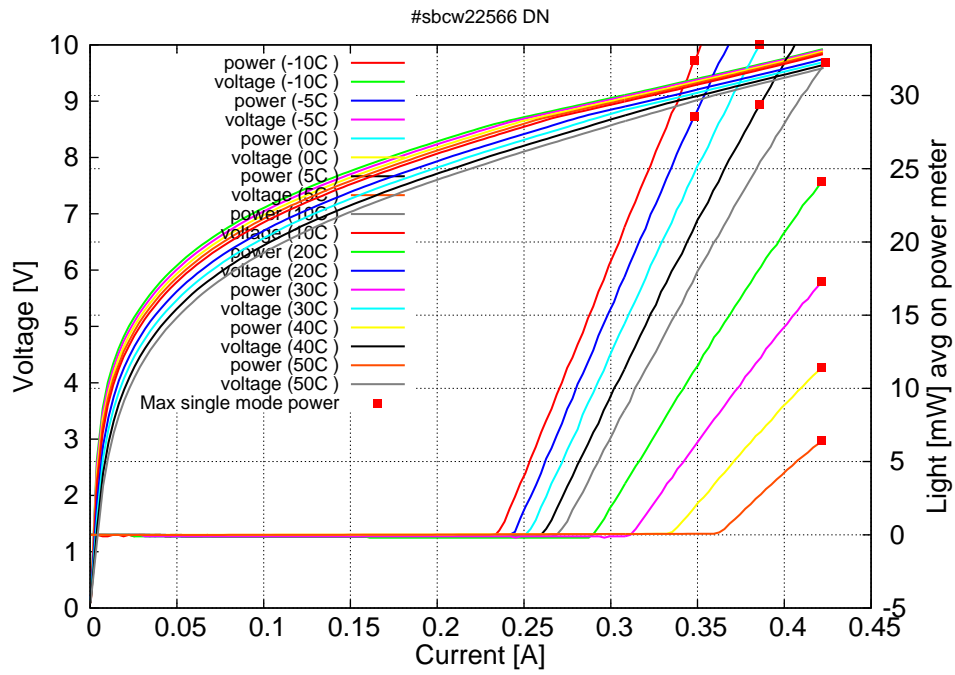


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -10C: $I_{th}=0.23A$ / $V_{th}=8.6V$ (2-wires measurements). Maximum operation current: 0.35A between -10C and -5C, 0.385A between 0C and 5C, 0.425A between 10C and 50C.

Figure 3: spectra at different temperatures for various DC currents

