

Datasheet for #sbcw25888 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 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 #sbcw25888 DN (please note that AlN submount numbering is A0V8D)

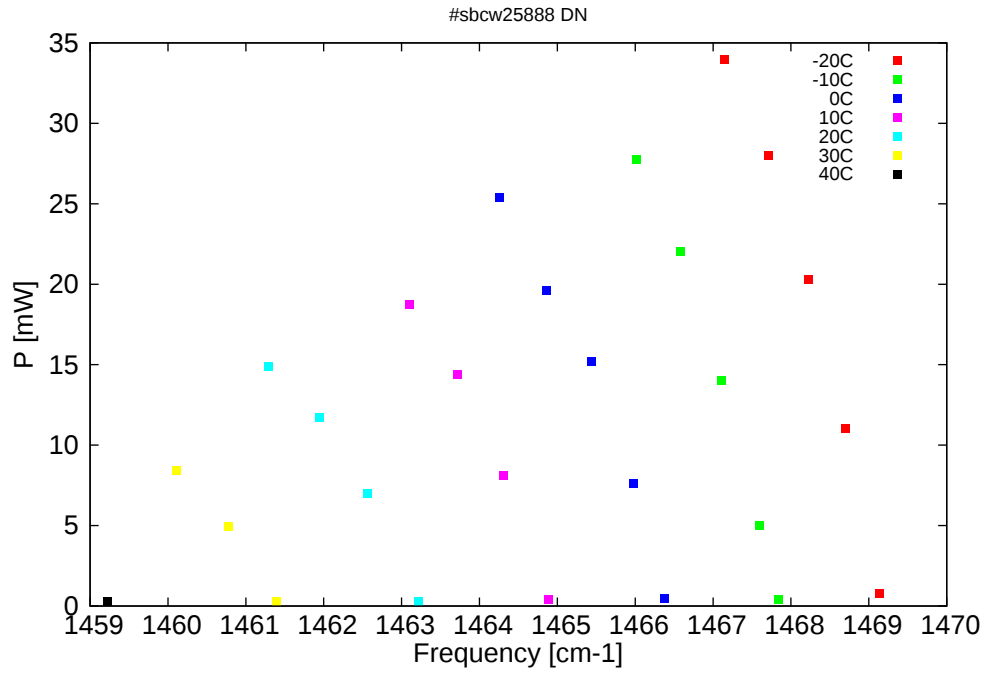


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

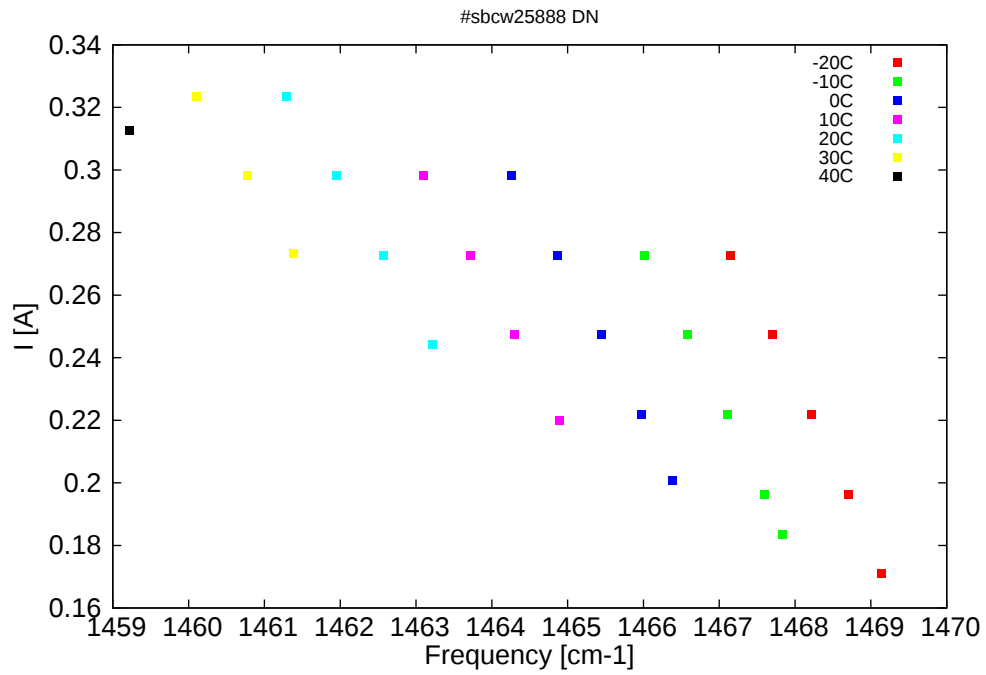


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
6806.7	1469.1	0.8	-20	11.66	0.171
6808.7	1468.7	11	-20	12.04	0.196
6811	1468.2	20.3	-20	12.42	0.222
6813.4	1467.7	28	-20	12.79	0.247
6815.9	1467.1	34	-20	13.17	0.273
6812.8	1467.8	0.4	-10	11.69	0.184
6813.9	1467.6	5	-10	11.88	0.196
6816.1	1467.1	14	-10	12.25	0.222
6818.6	1466.6	22	-10	12.62	0.247
6821.2	1466	27.7	-10	13	0.273
6819.5	1466.4	0.5	0	11.78	0.201
6821.4	1466	7.6	0	12.09	0.222
6823.9	1465.4	15.2	0	12.46	0.247
6826.6	1464.9	19.6	0	12.82	0.273
6829.4	1464.3	25.4	0	13.19	0.298
6826.4	1464.9	0.4	10	11.91	0.22
6829.2	1464.3	8.1	10	12.31	0.247
6831.9	1463.7	14.4	10	12.66	0.273
6834.8	1463.1	18.7	10	13.02	0.298
6834.3	1463.2	0.3	20	12.1	0.244
6837.3	1462.6	7	20	12.5	0.273
6840.2	1461.9	11.8	20	12.85	0.298
6843.3	1461.3	14.9	20	13.19	0.324
6842.8	1461.4	0.3	30	12.36	0.273
6845.7	1460.8	4.9	30	12.69	0.298
6848.8	1460.1	8.4	30	13.03	0.324
6853	1459.2	0.3	40	12.7	0.313

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

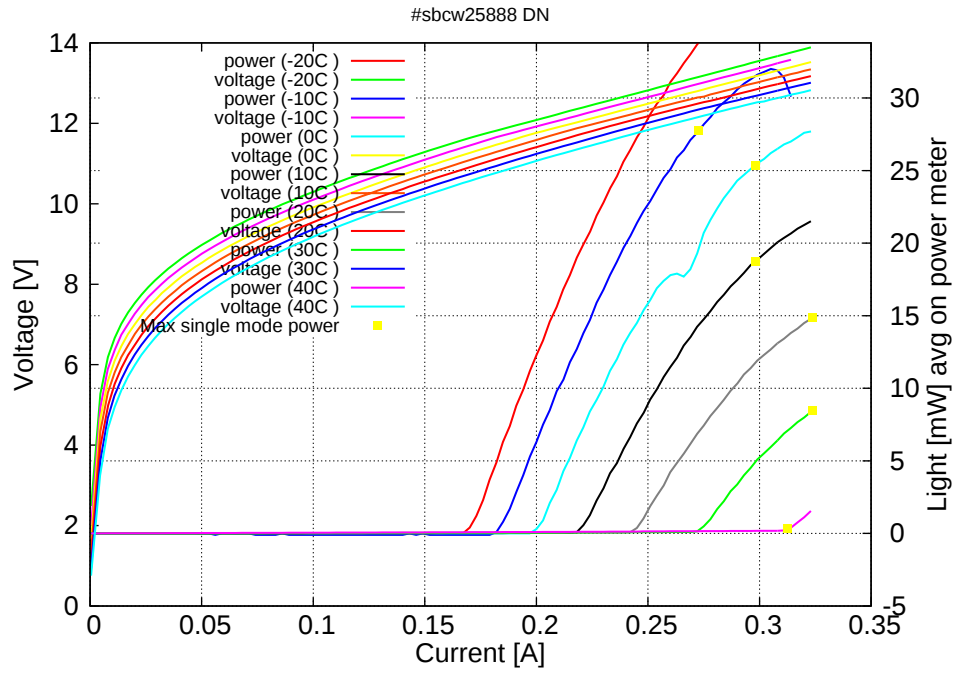


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.17A$ / $V_{th}=11.6V$ (2-wires measurements). Maximum operation current: 0.275A between -20C and -10C, 0.30A between 0C and 10C, 0.325A between 20C and 40C.

Figure 3: spectra at different temperatures for various DC currents

