

Datasheet for #sbcw25886 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 #sbcw25886 DN (please note that AlN submount numbering is A0VXP)

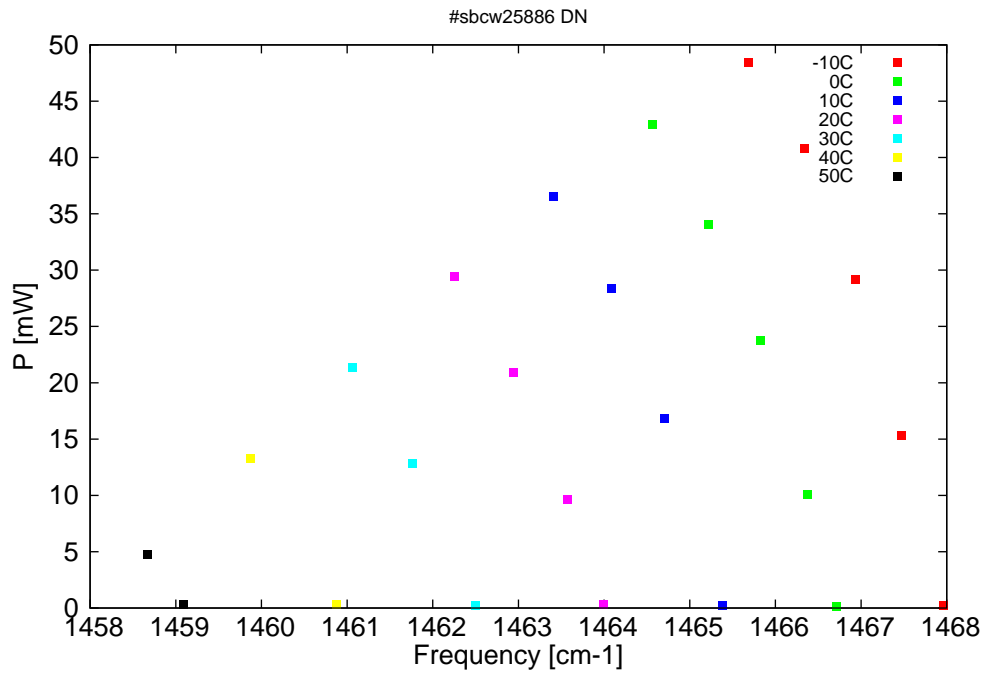


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

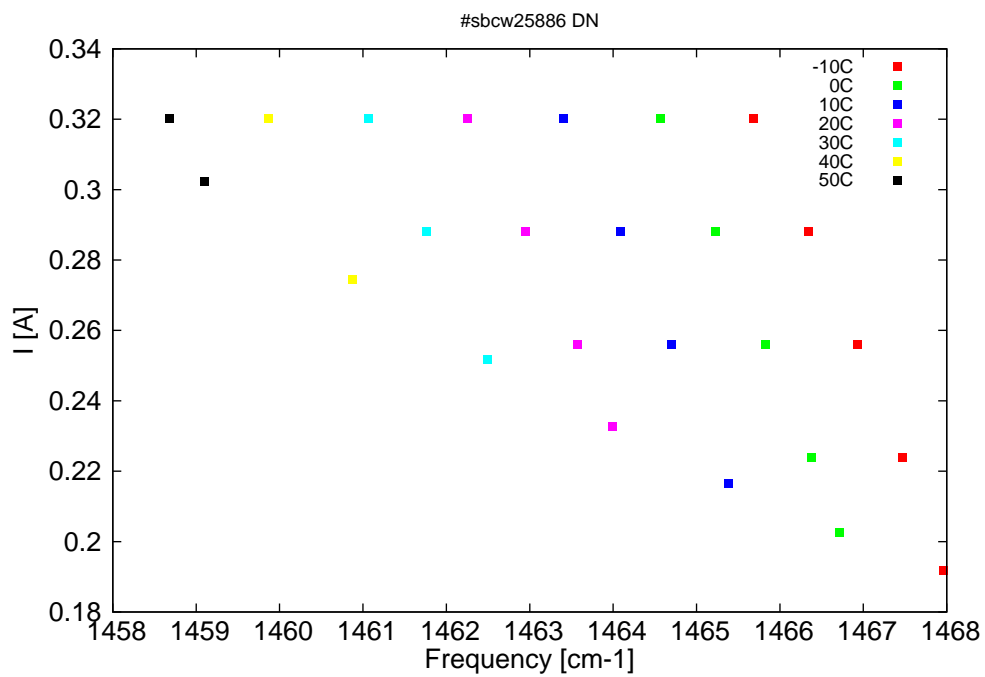


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
6812.2	1468	0.3	-10	11.24	0.192
6814.4	1467.5	15.3	-10	11.63	0.224
6816.9	1466.9	29.1	-10	12.02	0.256
6819.7	1466.3	40.8	-10	12.42	0.288
6822.7	1465.7	48.5	-10	12.82	0.32
6818	1466.7	0.1	0	11.24	0.203
6819.5	1466.4	10.1	0	11.49	0.224
6822.1	1465.8	23.7	0	11.88	0.256
6824.9	1465.2	34.1	0	12.28	0.288
6828	1464.6	42.9	0	12.67	0.32
6824.2	1465.4	0.2	10	11.27	0.216
6827.3	1464.7	16.8	10	11.76	0.256
6830.2	1464.1	28.4	10	12.14	0.288
6833.4	1463.4	36.5	10	12.54	0.32
6830.7	1464	0.3	20	11.35	0.233
6832.6	1463.6	9.6	20	11.63	0.256
6835.5	1462.9	20.9	20	12.02	0.288
6838.8	1462.3	29.4	20	12.41	0.32
6837.6	1462.5	0.3	30	11.45	0.252
6841	1461.8	12.8	30	11.89	0.288
6844.3	1461.1	21.3	30	12.29	0.32
6845.2	1460.9	0.3	40	11.61	0.275
6849.9	1459.9	13.2	40	12.16	0.32
6853.6	1459.1	0.3	50	11.82	0.302
6855.5	1458.7	4.7	50	12.04	0.32

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

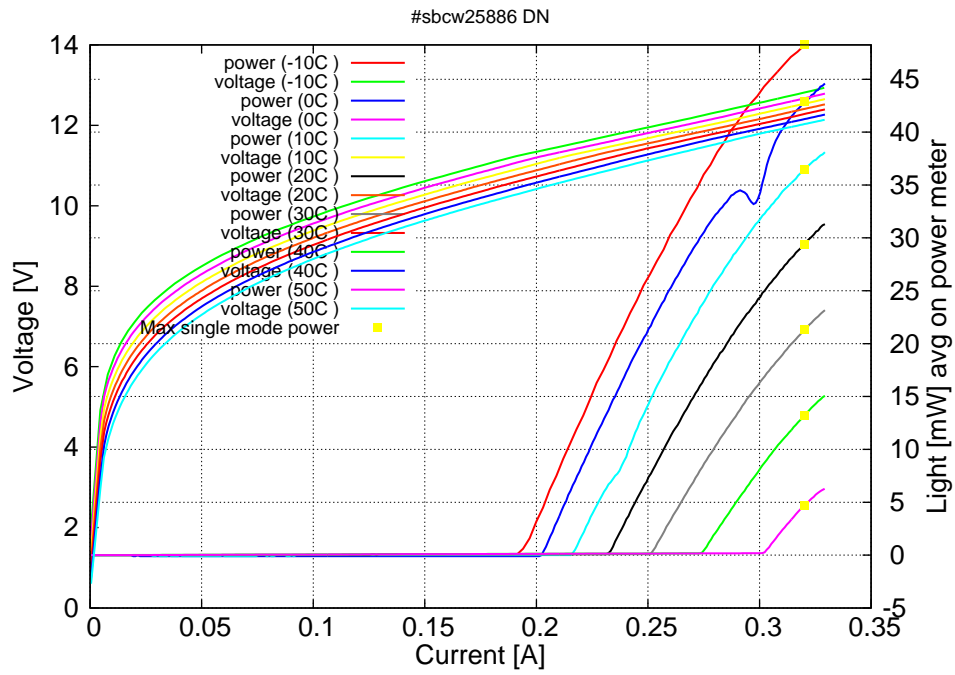


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -10C: $I_{th}=0.19A$ / $V_{th}=11.2V$ (2-wires measurements). Maximum operation current: 0.33A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

