

Datasheet for #sbcw25891 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 #sbcw25891 DN (please note that AlN submount numbering is A0VH2)

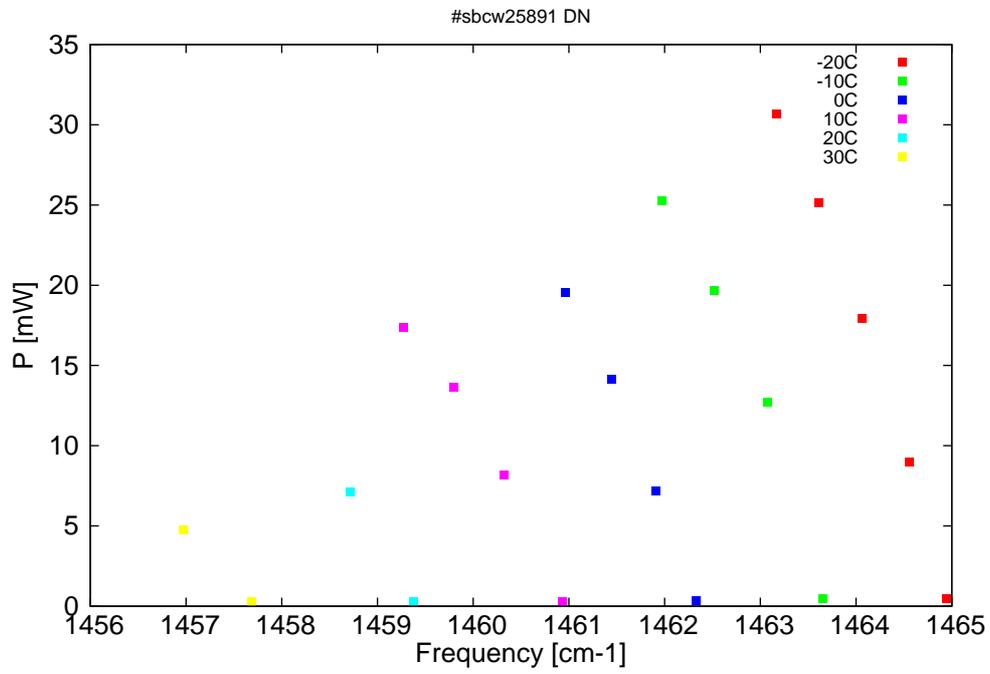


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

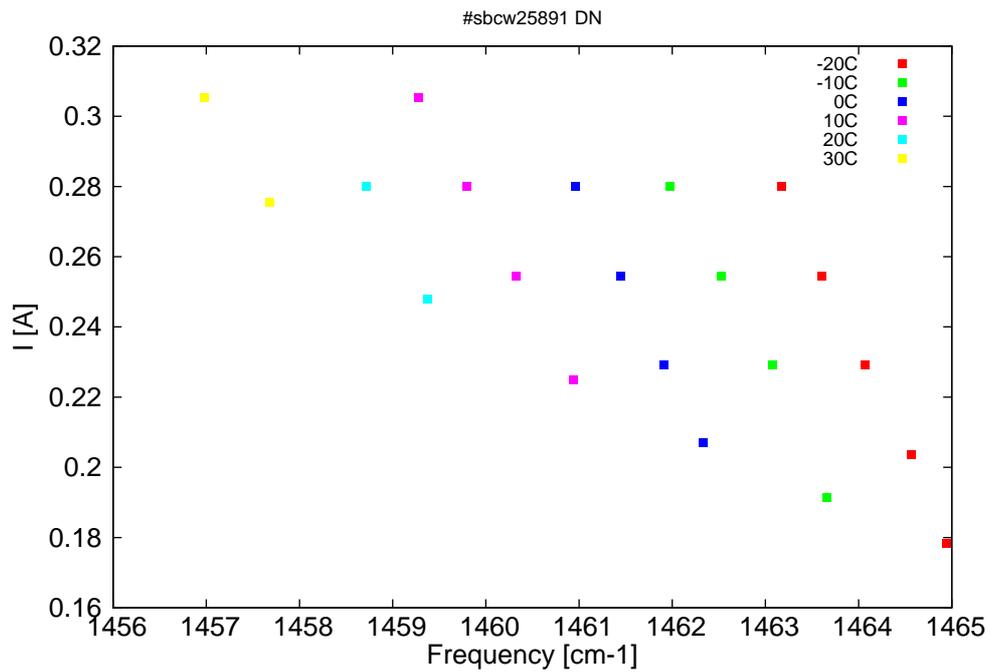


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
6826.2	1464.9	0.5	-20	11.79	0.178
6828	1464.6	9	-20	12.16	0.204
6830.3	1464.1	17.9	-20	12.53	0.229
6832.4	1463.6	25.1	-20	12.91	0.255
6834.5	1463.2	30.7	-20	13.29	0.28
6832.2	1463.7	0.5	-10	11.81	0.191
6834.9	1463.1	12.7	-10	12.36	0.229
6837.5	1462.5	19.7	-10	12.72	0.255
6840.1	1462	25.3	-10	13.1	0.28
6838.4	1462.3	0.4	0	11.87	0.207
6840.4	1461.9	7.2	0	12.19	0.229
6842.5	1461.4	14.2	0	12.55	0.255
6844.8	1461	19.6	0	12.93	0.28
6844.9	1460.9	0.3	10	11.97	0.225
6847.8	1460.3	8.2	10	12.39	0.255
6850.3	1459.8	13.7	10	12.75	0.28
6852.7	1459.3	17.4	10	13.13	0.305
6852.2	1459.4	0.3	20	12.14	0.248
6855.3	1458.7	7.1	20	12.6	0.28
6860.2	1457.7	0.3	30	12.42	0.276
6863.5	1457	4.8	30	12.84	0.305

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

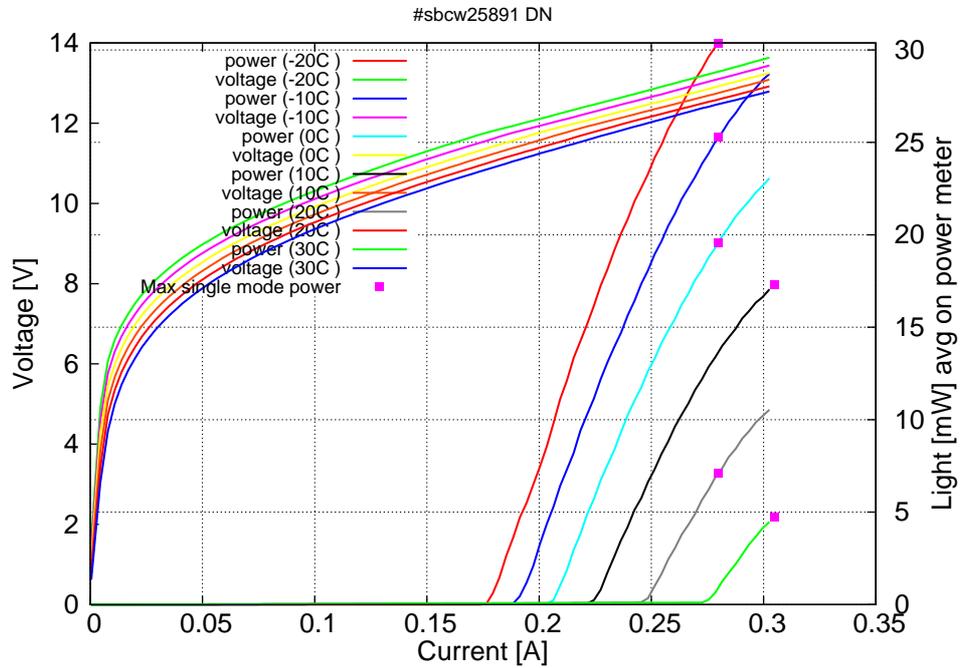


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.17A$ / $V_{th}=11.7V$ (2-wires measurements). Maximum operation

current: 0.28A between -20C and 0C, 0.305A between 10C and 30C.

Figure 3: spectra at different temperatures for various DC currents

