

Datasheet for #sbcw25717 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 #sbcw25717 DN (please note that AlN submount numbering is A0WZN)

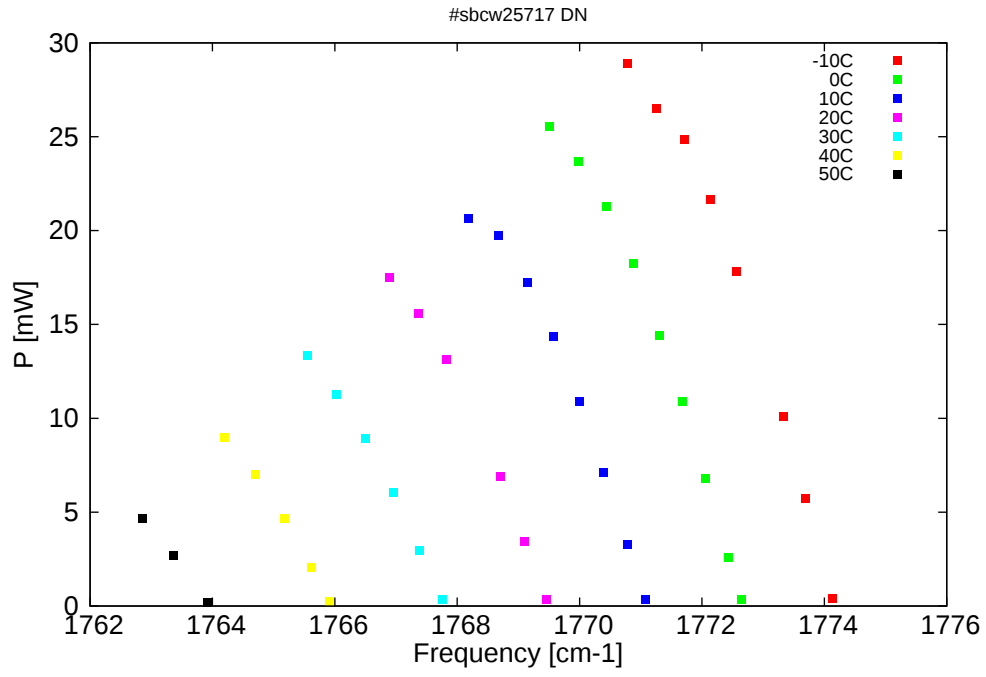


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

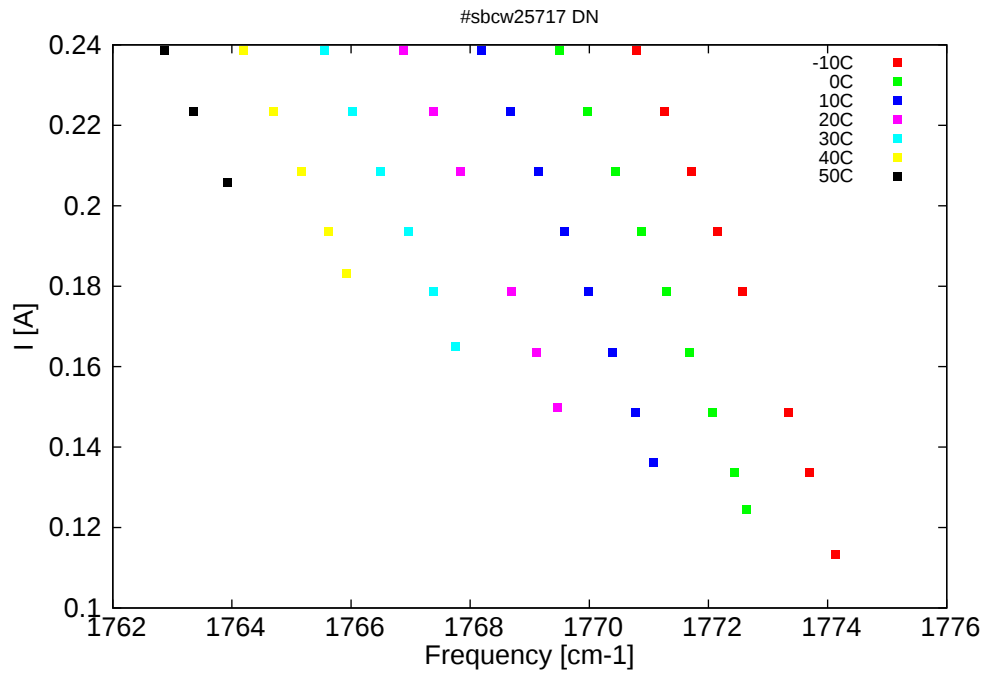


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
5636.5	1774.1	0.4	-10	10.24	0.113
5638	1773.7	5.8	-10	10.56	0.134
5639.1	1773.3	10.1	-10	10.78	0.149
5641.5	1772.6	17.8	-10	11.2	0.179
5642.9	1772.1	21.7	-10	11.41	0.194
5644.3	1771.7	24.8	-10	11.62	0.209
5645.7	1771.3	26.5	-10	11.83	0.224
5647.2	1770.8	28.9	-10	12.04	0.239
5641.3	1772.6	0.4	0	10.24	0.125
5642	1772.4	2.6	0	10.37	0.134
5643.1	1772.1	6.8	0	10.59	0.149
5644.3	1771.7	10.9	0	10.8	0.164
5645.6	1771.3	14.4	0	11.01	0.179
5646.9	1770.9	18.3	0	11.22	0.194
5648.3	1770.4	21.3	0	11.42	0.209
5649.8	1770	23.7	0	11.63	0.224
5651.3	1769.5	25.6	0	11.84	0.239
5646.3	1771.1	0.3	10	10.28	0.136
5647.2	1770.8	3.3	10	10.46	0.149
5648.4	1770.4	7.1	10	10.68	0.164
5649.7	1770	10.9	10	10.89	0.179
5651.1	1769.6	14.4	10	11.1	0.194
5652.5	1769.1	17.2	10	11.3	0.209
5653.9	1768.7	19.7	10	11.5	0.224
5655.5	1768.2	20.7	10	11.71	0.239
5651.4	1769.5	0.3	20	10.26	0.15
5652.6	1769.1	3.4	20	10.46	0.164
5653.9	1768.7	6.9	20	10.66	0.179
5656.7	1767.8	13.2	20	11.1	0.209
5658.1	1767.4	15.6	20	11.3	0.224
5659.7	1766.9	17.5	20	11.48	0.239
5656.9	1767.8	0.3	30	10.28	0.165
5658.1	1767.4	3	30	10.46	0.179
5659.4	1767	6.1	30	10.65	0.194
5660.9	1766.5	8.9	30	10.83	0.209
5662.4	1766	11.3	30	11.02	0.224
5664	1765.6	13.3	30	11.21	0.239
5662.8	1765.9	0.3	40	10.33	0.183
5663.7	1765.6	2	40	10.47	0.194
5665.2	1765.2	4.7	40	10.65	0.209
5666.7	1764.7	7	40	10.83	0.224
5668.3	1764.2	9	40	11.01	0.239
5669.2	1763.9	0.2	50	10.44	0.206
5671	1763.4	2.7	50	10.65	0.224
5672.6	1762.9	4.7	50	10.82	0.239

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

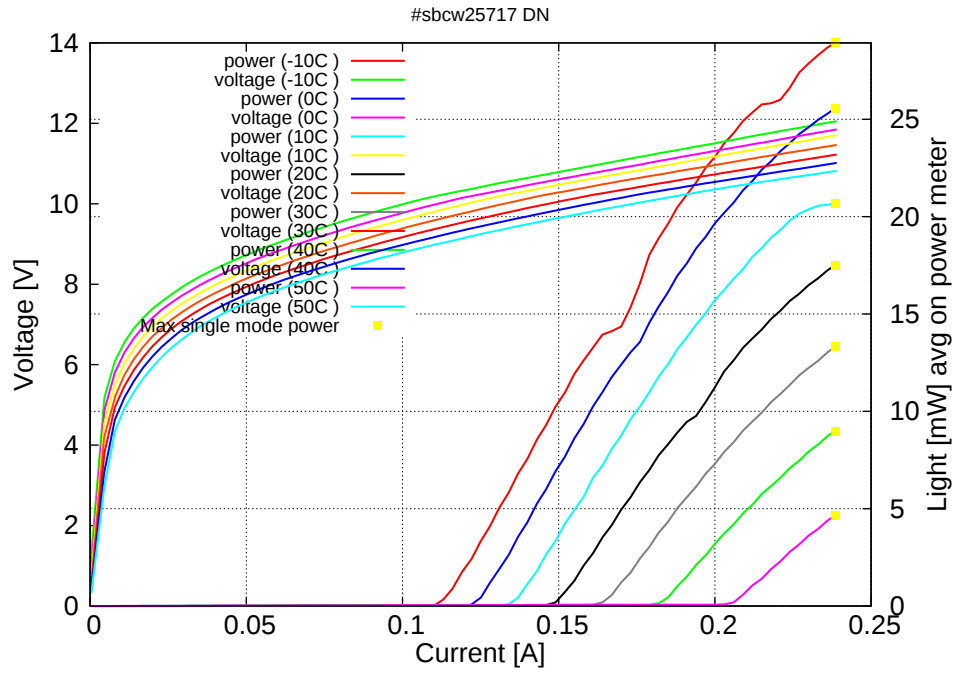


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -10C: $I_{th}=0.11A$ / $V_{th}=10.2V$ (2-wires measurements). Maximum operation current: 0.24A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

