

Datasheet for #sbcw25718 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.

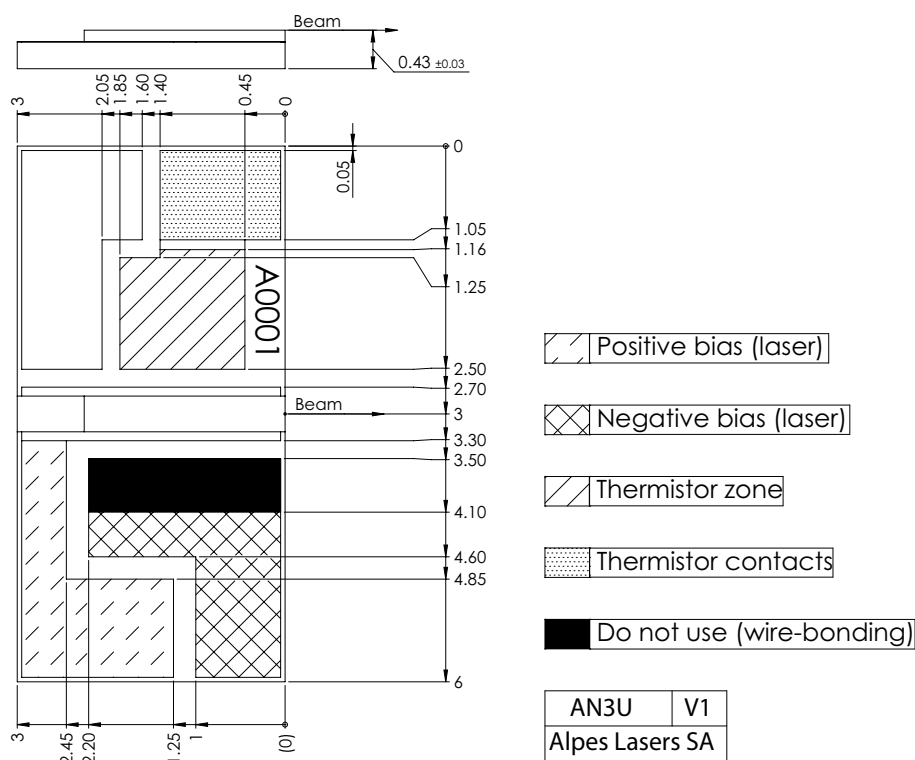


Figure 1: Mechanical and electrical interface for #sbcw25718 DN (please note that AlN submount numbering is A0X6Z)

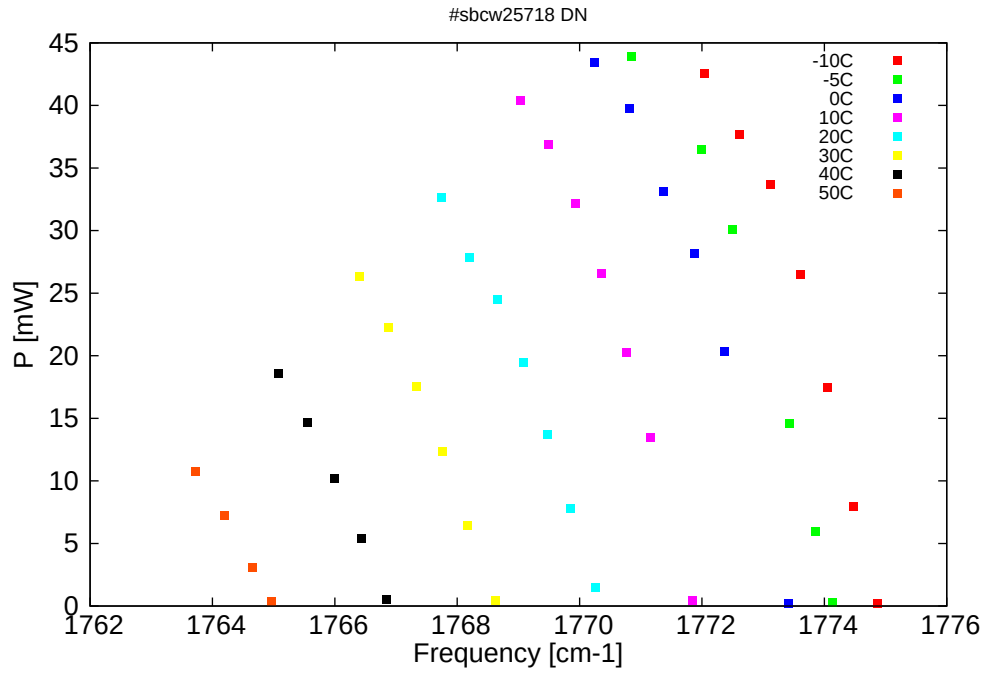


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

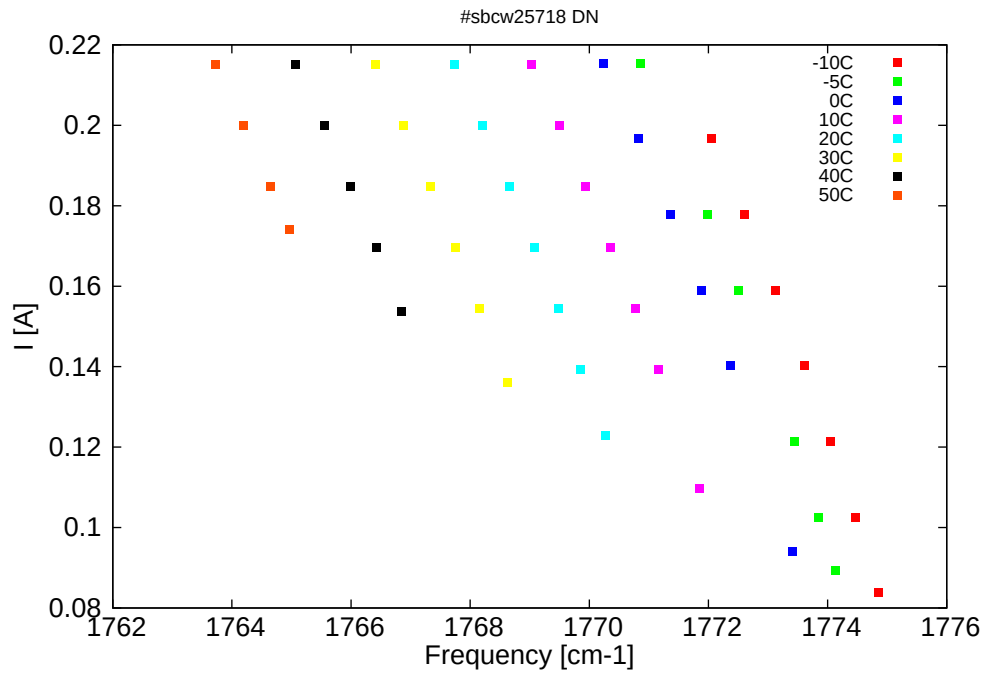


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
5634.2	1774.9	0.2	-10	9.79	0.084
5635.5	1774.5	8	-10	10.11	0.103
5636.8	1774.1	17.5	-10	10.42	0.121
5638.2	1773.6	26.5	-10	10.72	0.14
5639.8	1773.1	33.7	-10	11	0.159
5641.4	1772.6	37.7	-10	11.29	0.178
5643.2	1772	42.6	-10	11.57	0.197
5636.6	1774.1	0.3	-5	9.8	0.089
5637.4	1773.9	6	-5	10.02	0.103
5638.8	1773.4	14.6	-5	10.33	0.121
5641.7	1772.5	30.1	-5	10.9	0.159
5643.4	1772	36.5	-5	11.19	0.178
5647	1770.9	43.9	-5	11.75	0.215
5638.9	1773.4	0.2	0	9.79	0.094
5642.2	1772.4	20.3	0	10.53	0.14
5643.7	1771.9	28.2	0	10.81	0.159
5645.3	1771.4	33.1	0	11.09	0.178
5647.1	1770.8	39.8	0	11.36	0.197
5649	1770.2	43.4	0	11.64	0.215
5643.8	1771.8	0.4	10	9.8	0.11
5646	1771.2	13.4	10	10.24	0.139
5647.3	1770.8	20.2	10	10.45	0.154
5648.6	1770.4	26.6	10	10.66	0.17
5649.9	1769.9	32.2	10	10.87	0.185
5651.3	1769.5	36.9	10	11.08	0.2
5652.8	1769	40.4	10	11.29	0.215
5648.9	1770.3	1.4	20	9.83	0.123
5650.2	1769.9	7.8	20	10.06	0.139
5651.4	1769.5	13.7	20	10.27	0.154
5652.7	1769.1	19.5	20	10.47	0.17
5654	1768.7	24.5	20	10.68	0.185
5655.5	1768.2	27.8	20	10.88	0.2
5656.9	1767.7	32.7	20	11.08	0.215
5654.1	1768.6	0.4	30	9.85	0.136
5655.6	1768.2	6.4	30	10.1	0.154
5656.9	1767.8	12.4	30	10.29	0.17
5658.2	1767.3	17.5	30	10.5	0.185
5659.7	1766.9	22.3	30	10.69	0.2
5661.2	1766.4	26.3	30	10.88	0.215
5659.8	1766.8	0.5	40	9.92	0.154
5661.1	1766.4	5.4	40	10.12	0.17
5662.5	1766	10.2	40	10.31	0.185
5664	1765.5	14.7	40	10.51	0.2
5665.5	1765.1	18.6	40	10.7	0.215
5665.9	1765	0.4	50	10.02	0.174
5666.8	1764.7	3.1	50	10.15	0.185
5668.3	1764.2	7.2	50	10.33	0.2
5669.8	1763.7	10.8	50	10.52	0.215

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Table 1: $\lambda[\text{nm}]$ $\nu[\text{cm}^{-1}]$ $P[\text{mW}]$ $\text{Temp}[\text{°C}]$ $U_{\text{LASER}}[\text{V}]$ $I[\text{A}]$
 Table 1: Singlemode optical output power as function of operating parameters.

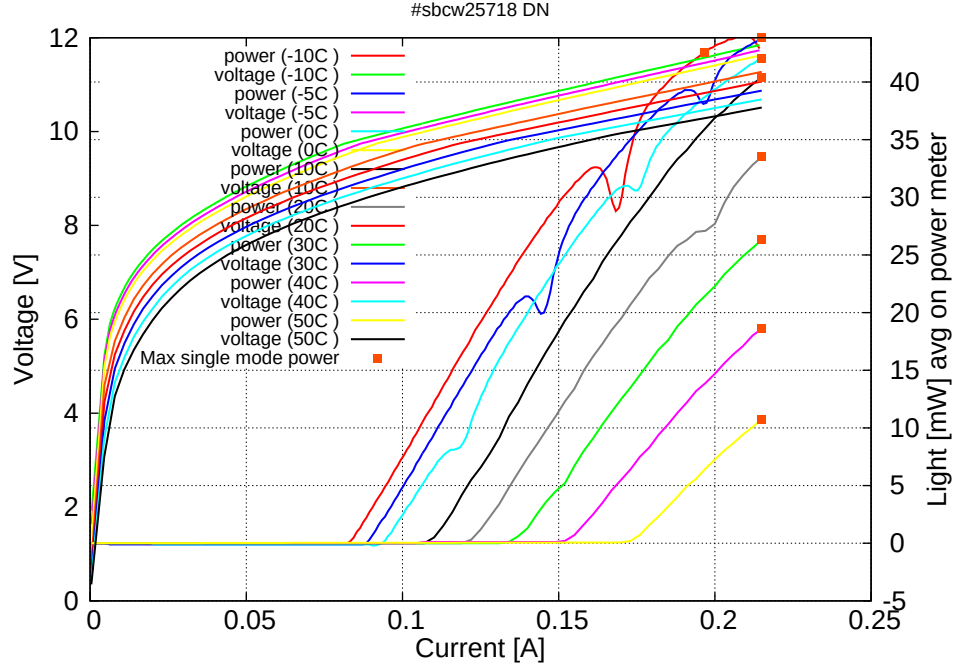


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -10C: $I_{\text{th}}=0.08\text{A}$ / $V_{\text{th}}=9.8\text{V}$ (2-wires measurements). Maximum operation current: 0.215A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

