

Datasheet for #sbcw24772 DN

Recommendations:

Please read the User Manual and have a look at the FAQ at <http://www.alpeslasers.ch/?a=142>

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.

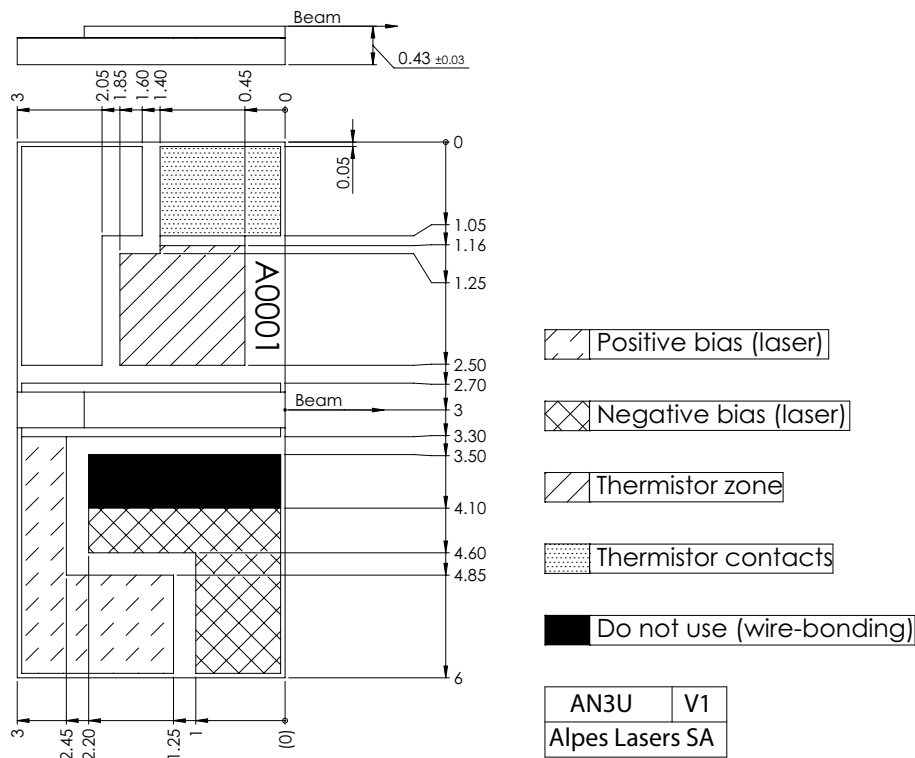


Figure 1: Mechanical and electrical interface for #sbcw24772 DN (please note that AlN submount numbering is A11VU)

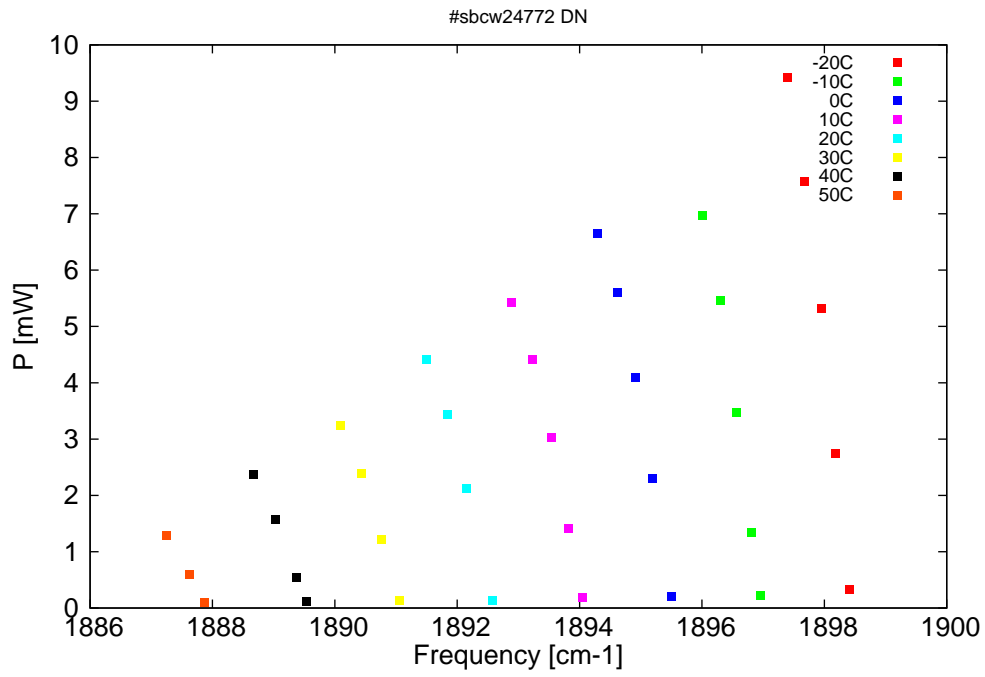


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

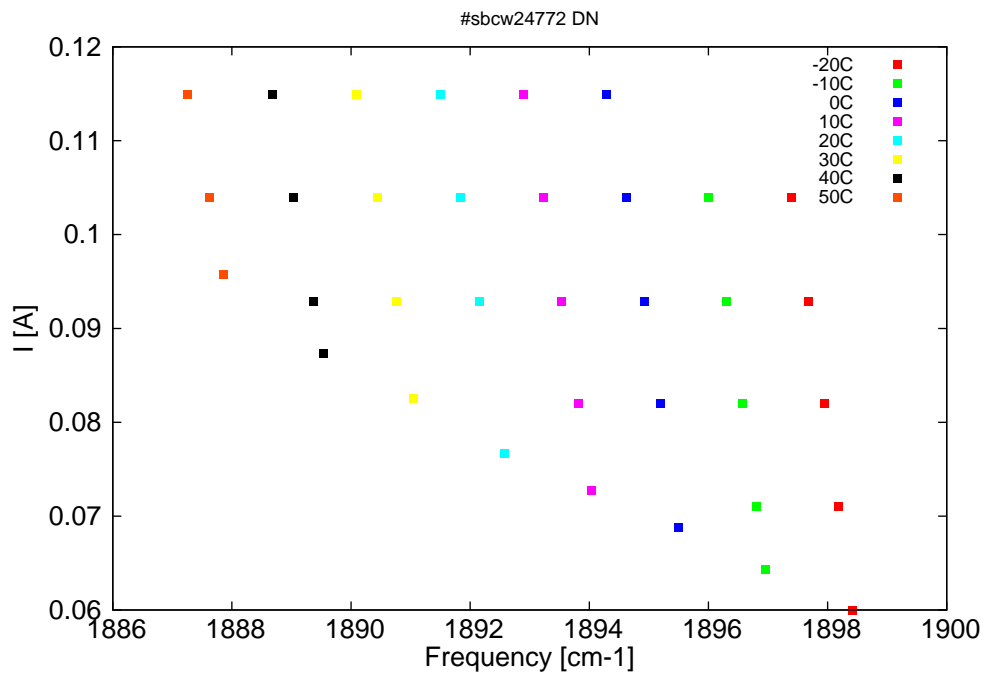


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5267.6	1898.4	0.3	-20	7.79	0.06
5268.2	1898.2	2.7	-20	8.03	0.071
5268.9	1897.9	5.3	-20	8.27	0.082
5269.6	1897.7	7.6	-20	8.53	0.093
5270.4	1897.4	9.4	-20	8.83	0.104
5271.6	1897	0.2	-10	7.83	0.064
5272	1896.8	1.3	-10	7.98	0.071
5272.7	1896.6	3.5	-10	8.24	0.082
5273.4	1896.3	5.5	-10	8.5	0.093
5274.3	1896	7	-10	8.8	0.104
5275.7	1895.5	0.2	0	7.89	0.069
5276.5	1895.2	2.3	0	8.19	0.082
5277.3	1894.9	4.1	0	8.46	0.093
5278.1	1894.6	5.6	0	8.76	0.104
5279	1894.3	6.7	0	9.07	0.115
5279.7	1894	0.2	10	7.94	0.073
5280.3	1893.8	1.4	10	8.16	0.082
5281.1	1893.5	3	10	8.42	0.093
5282	1893.2	4.4	10	8.71	0.104
5282.9	1892.9	5.4	10	9.03	0.115
5283.8	1892.6	0.1	20	7.99	0.077
5285	1892.2	2.1	20	8.38	0.093
5285.9	1891.8	3.4	20	8.67	0.104
5286.8	1891.5	4.4	20	8.98	0.115
5288.1	1891.1	0.1	30	8.08	0.083
5288.9	1890.8	1.2	30	8.34	0.093
5289.8	1890.4	2.4	30	8.63	0.104
5290.8	1890.1	3.2	30	8.93	0.115
5292.3	1889.5	0.1	40	8.16	0.087
5292.8	1889.4	0.5	40	8.3	0.093
5293.7	1889	1.6	40	8.58	0.104
5294.7	1888.7	2.4	40	8.88	0.115
5297	1887.9	0.1	50	8.32	0.096
5297.7	1887.6	0.6	50	8.53	0.104
5298.7	1887.3	1.3	50	8.83	0.115

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

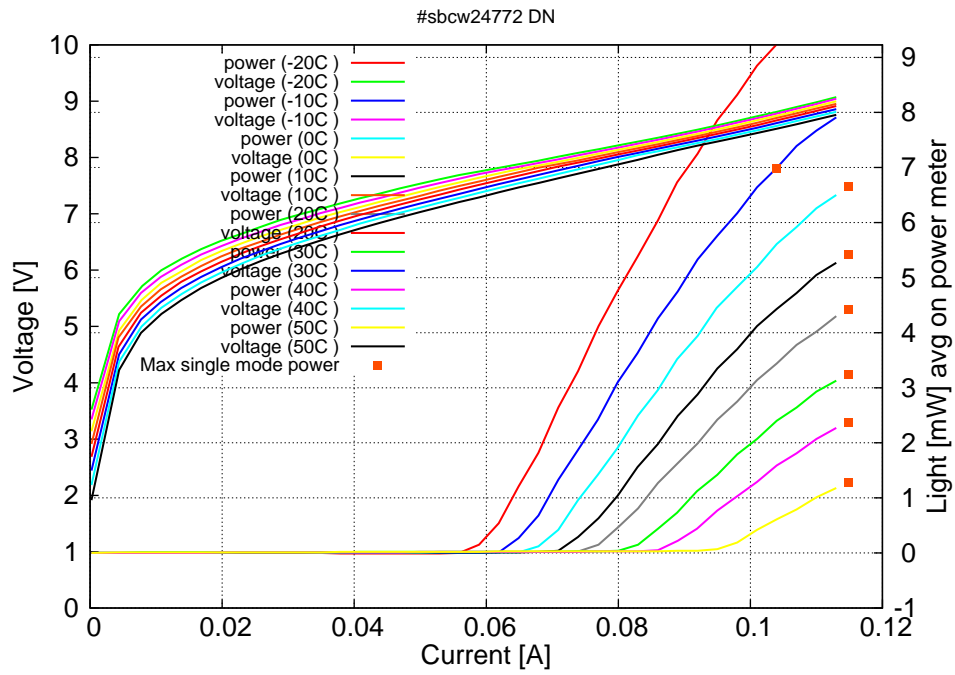


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.06A$ / $V_{th}=7.7V$ (2-wires measurements). Maximum operation current: 0.105A between -20C and -10C, 0.115A between 0C and 50C.

Figure 3: spectra at different temperatures for various DC currents

