

Datasheet for #sbcw26477 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.

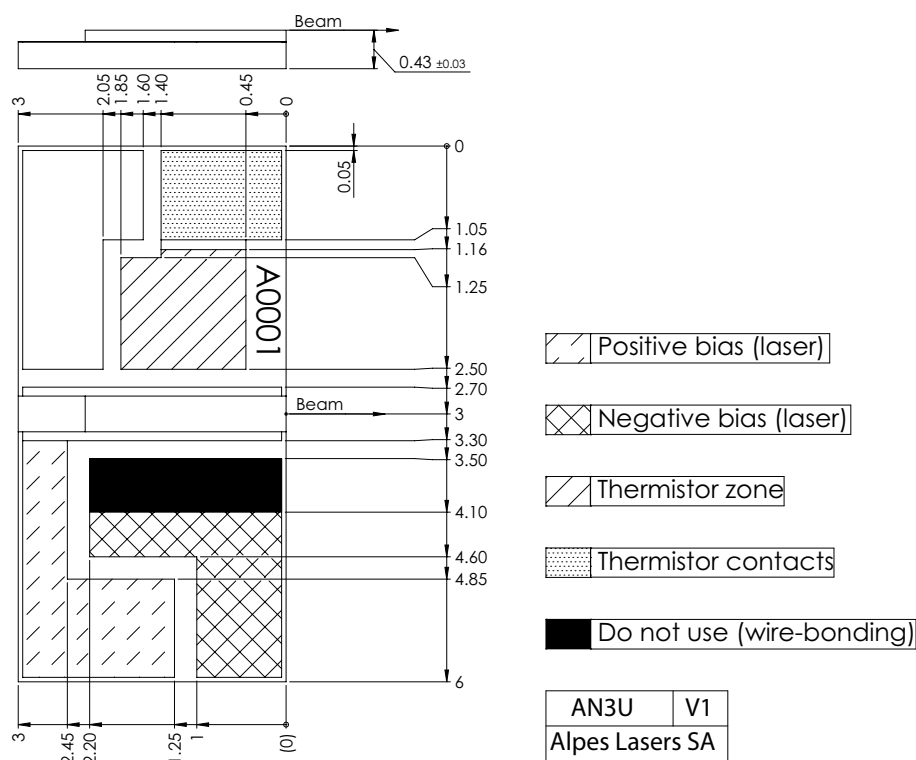


Figure 1: Mechanical and electrical interface for #sbcw26477 DN (please note that AlN submount numbering is A0WHT)

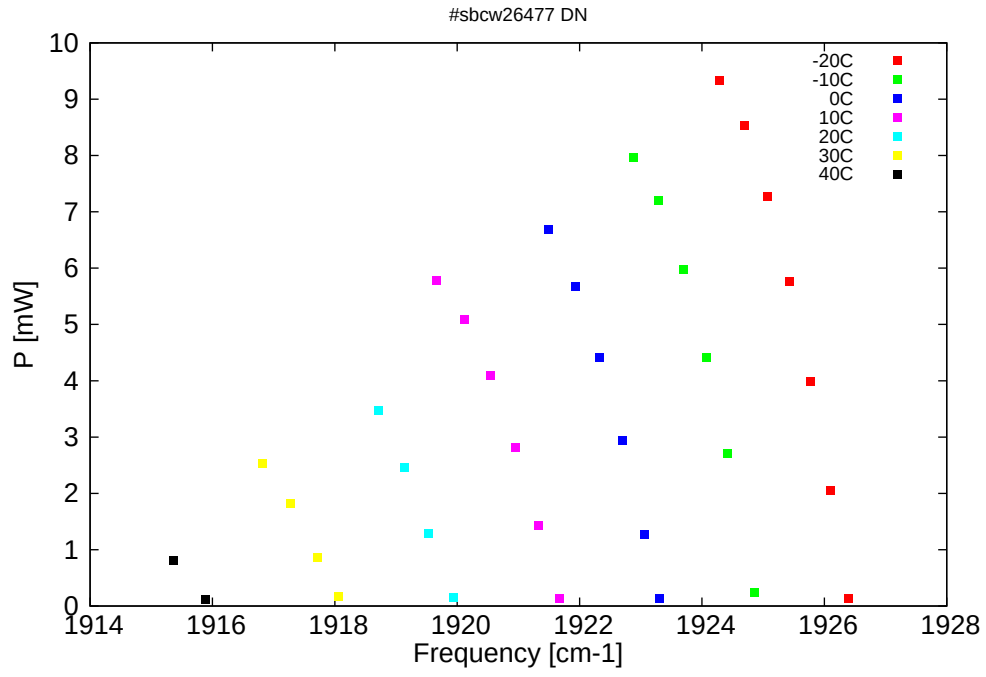


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

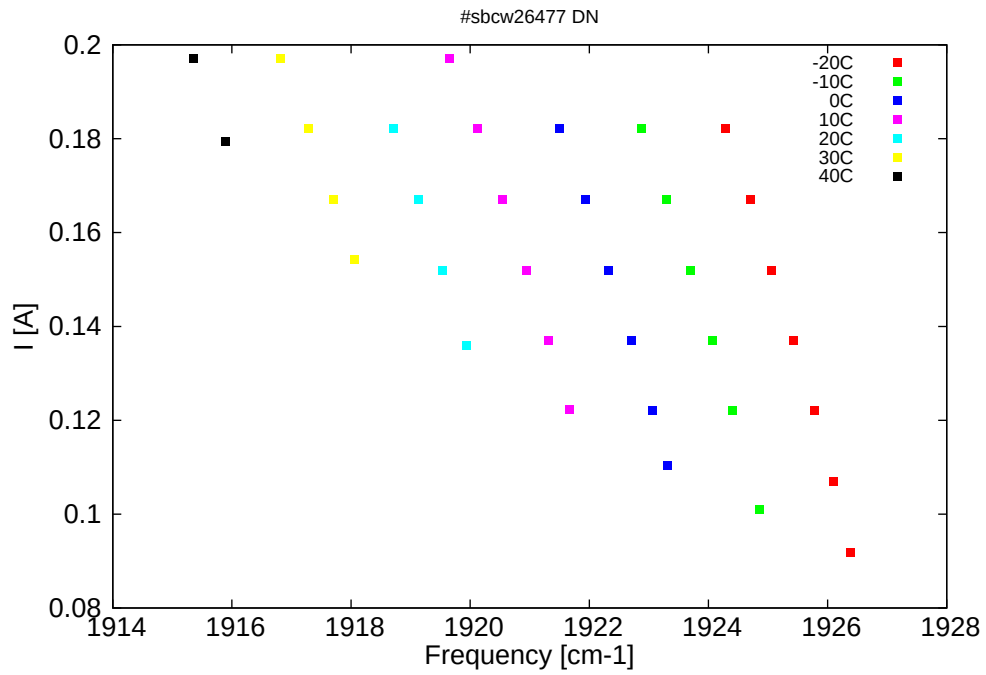


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
5191	1926.4	0.1	-20	8.1	0.092
5191.9	1926.1	2	-20	8.31	0.107
5192.7	1925.8	4	-20	8.53	0.122
5193.6	1925.4	5.8	-20	8.76	0.137
5194.6	1925.1	7.3	-20	8.99	0.152
5195.6	1924.7	8.5	-20	9.25	0.167
5196.7	1924.3	9.3	-20	9.51	0.182
5195.2	1924.9	0.2	-10	8.16	0.101
5196.4	1924.4	2.7	-10	8.46	0.122
5197.3	1924.1	4.4	-10	8.68	0.137
5198.3	1923.7	6	-10	8.91	0.152
5199.4	1923.3	7.2	-10	9.16	0.167
5200.5	1922.9	8	-10	9.42	0.182
5199.4	1923.3	0.1	0	8.22	0.11
5200.1	1923.1	1.3	0	8.38	0.122
5201	1922.7	2.9	0	8.6	0.137
5202	1922.3	4.4	0	8.83	0.152
5203.1	1921.9	5.7	0	9.06	0.167
5204.3	1921.5	6.7	0	9.32	0.182
5203.8	1921.7	0.1	10	8.34	0.122
5204.8	1921.3	1.4	10	8.55	0.137
5205.8	1920.9	2.8	10	8.78	0.152
5206.9	1920.5	4.1	10	9.01	0.167
5208	1920.1	5.1	10	9.25	0.182
5209.3	1919.7	5.8	10	9.5	0.197
5208.5	1919.9	0.2	20	8.5	0.136
5209.6	1919.5	1.3	20	8.73	0.152
5210.7	1919.1	2.5	20	8.95	0.167
5211.8	1918.7	3.5	20	9.19	0.182
5213.6	1918.1	0.2	30	8.71	0.154
5214.6	1917.7	0.9	30	8.88	0.167
5215.7	1917.3	1.8	30	9.1	0.182
5217	1916.8	2.5	30	9.33	0.197
5219.5	1915.9	0.1	40	9	0.18
5221	1915.4	0.8	40	9.24	0.197

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

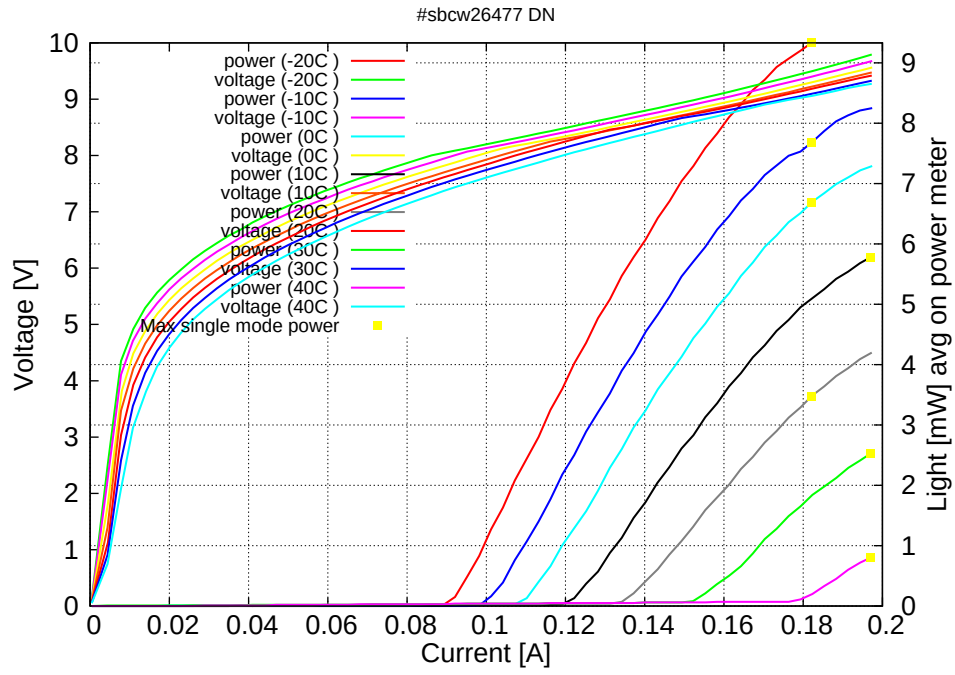


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.09A$ / $V_{th}=8.1V$ (2-wires measurements). Maximum operation current: 0.18A between -20C and 0C, 0.20A between 10C and 40C.

Figure 3: spectra at different temperatures for various DC currents

