

Datasheet for #sbcw26136 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.

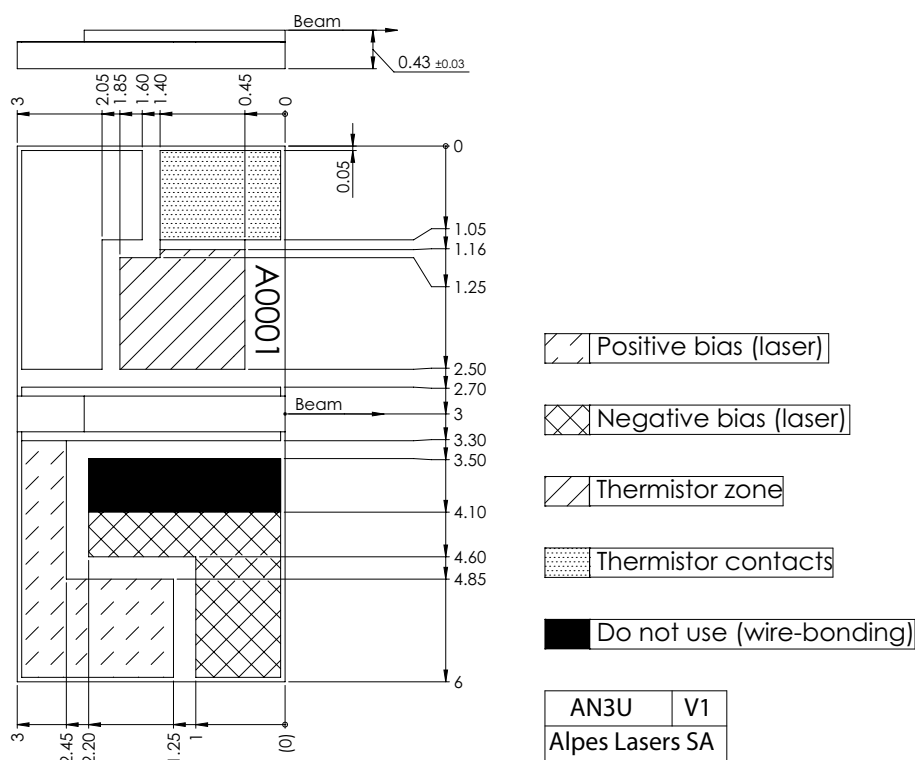


Figure 1: Mechanical and electrical interface for #sbcw26136 DN (please note that AlN submount numbering is A0U47)

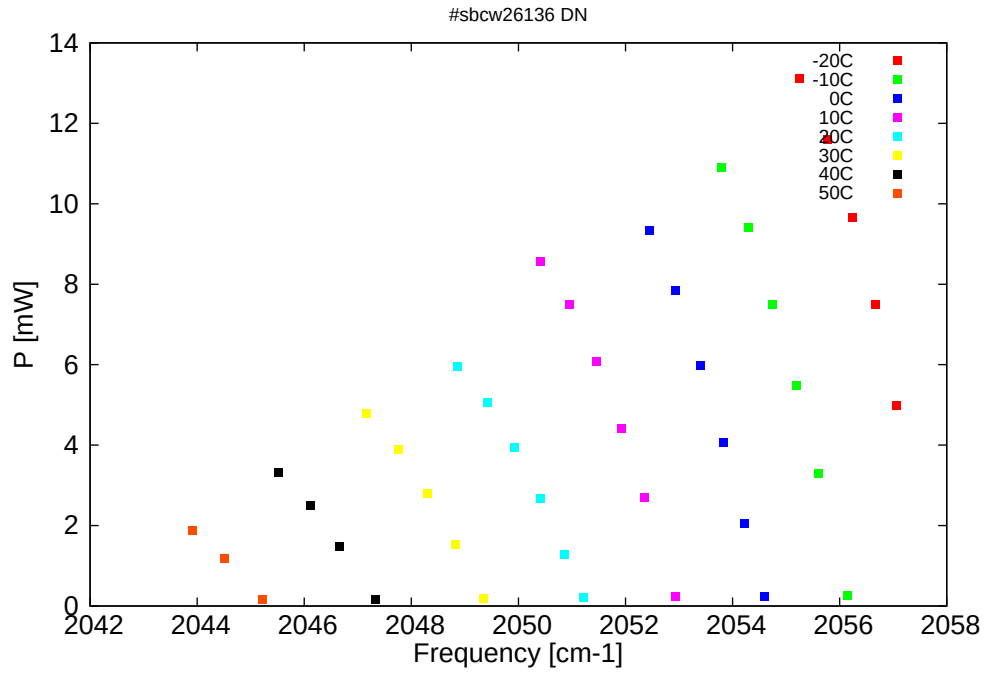


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

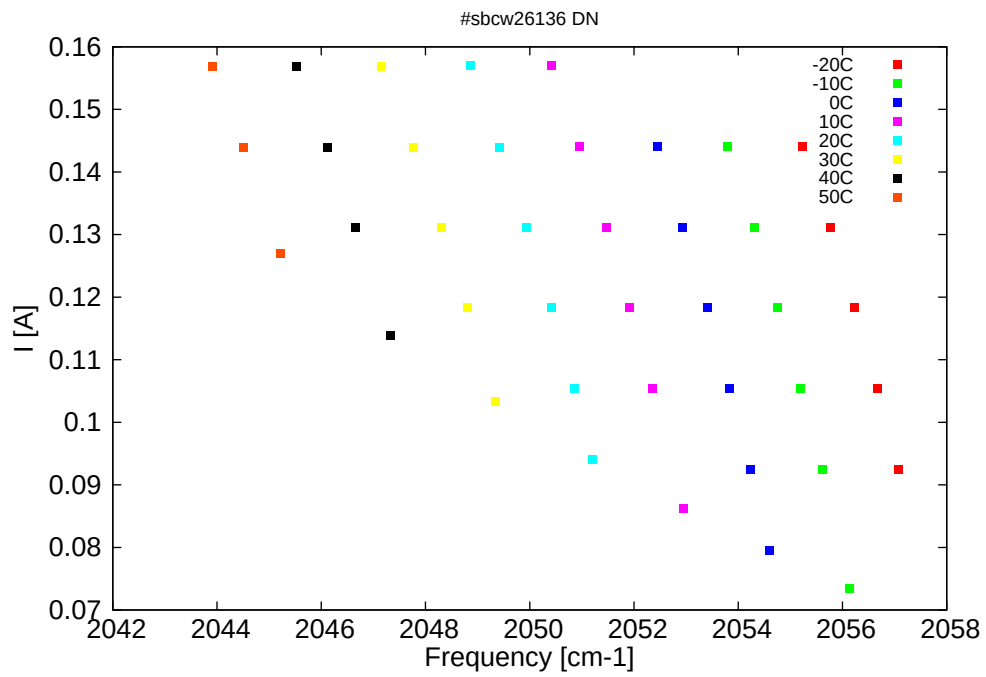


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
4861.3	2057.1	5	-20	11.91	0.093
4862.2	2056.7	7.5	-20	12.23	0.105
4863.3	2056.2	9.7	-20	12.55	0.118
4864.4	2055.8	11.6	-20	12.91	0.131
4865.6	2055.2	13.1	-20	13.29	0.144
4863.5	2056.1	0.3	-10	11.33	0.074
4864.7	2055.6	3.3	-10	11.78	0.093
4865.7	2055.2	5.5	-10	12.08	0.105
4866.8	2054.8	7.5	-10	12.39	0.118
4867.8	2054.3	9.4	-10	12.72	0.131
4869	2053.8	10.9	-10	13.08	0.144
4867.2	2054.6	0.2	0	11.37	0.08
4868	2054.2	2.1	0	11.66	0.093
4869	2053.8	4.1	0	11.95	0.105
4870	2053.4	6	0	12.26	0.118
4871.1	2052.9	7.8	0	12.57	0.131
4872.2	2052.5	9.3	0	12.92	0.144
4871.1	2052.9	0.2	10	11.42	0.086
4872.4	2052.4	2.7	10	11.84	0.105
4873.5	2051.9	4.4	10	12.13	0.118
4874.6	2051.5	6.1	10	12.44	0.131
4875.8	2050.9	7.5	10	12.76	0.144
4877.1	2050.4	8.6	10	13.12	0.157
4875.2	2051.2	0.2	20	11.51	0.094
4876	2050.9	1.3	20	11.75	0.105
4877.1	2050.4	2.7	20	12.03	0.118
4878.2	2049.9	3.9	20	12.33	0.131
4879.4	2049.4	5.1	20	12.64	0.144
4880.7	2048.9	5.9	20	12.98	0.157
4879.6	2049.3	0.2	30	11.64	0.103
4880.9	2048.8	1.5	30	11.94	0.118
4882.1	2048.3	2.8	30	12.22	0.131
4883.4	2047.8	3.9	30	12.52	0.144
4884.8	2047.2	4.8	30	12.83	0.157
4884.4	2047.3	0.2	40	11.79	0.114
4886	2046.7	1.5	40	12.13	0.131
4887.3	2046.1	2.5	40	12.42	0.144
4888.7	2045.5	3.3	40	12.72	0.157
4889.5	2045.2	0.2	50	12.01	0.127
4891.2	2044.5	1.2	50	12.36	0.144
4892.6	2043.9	1.9	50	12.66	0.157

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

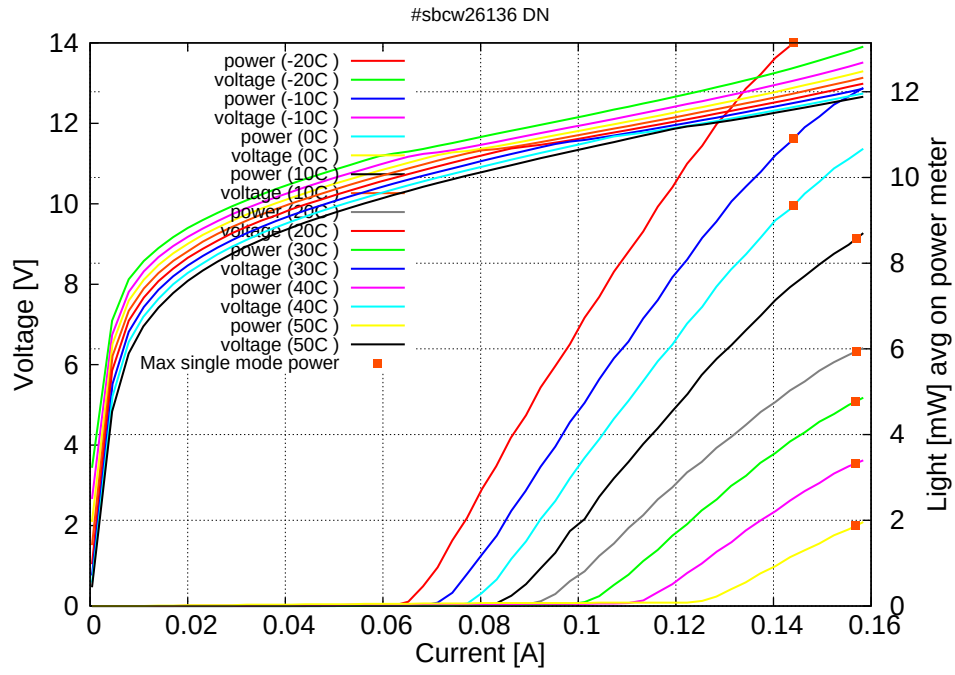


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.07A$ / $V_{th}=11.3V$ (2-wires measurements). Maximum operation current: 0.145A between -20C and 0C, 0.16A between 10C and 50C.

Figure 3: spectra at different temperatures for various DC currents

