

Datasheet for #sbcw26133 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 #sbcw26133 DN (please note that AlN submount numbering is A0W3M)

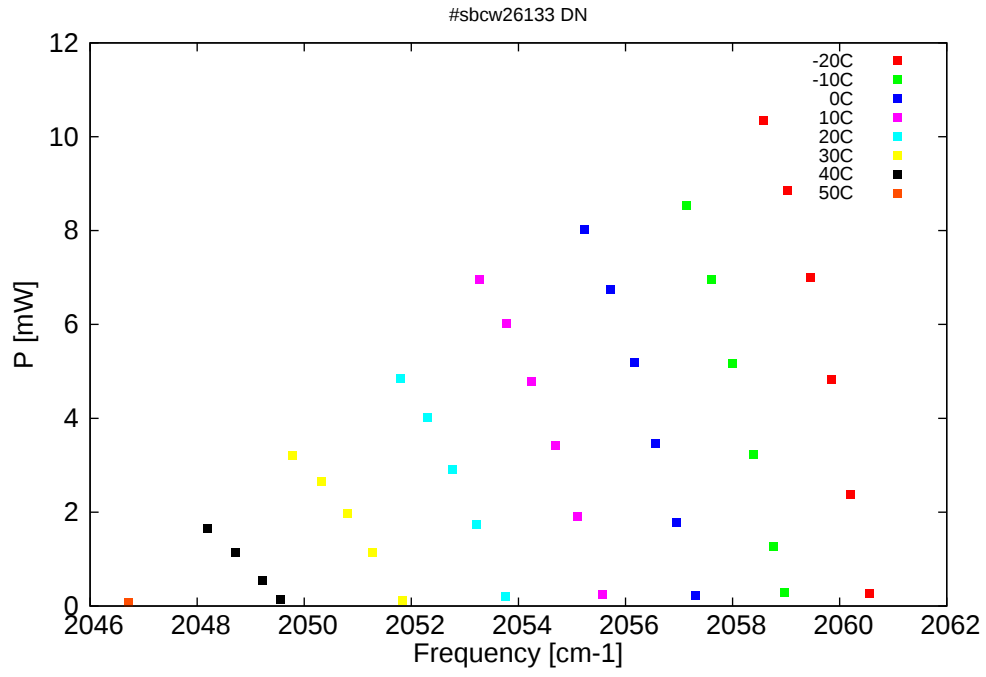


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

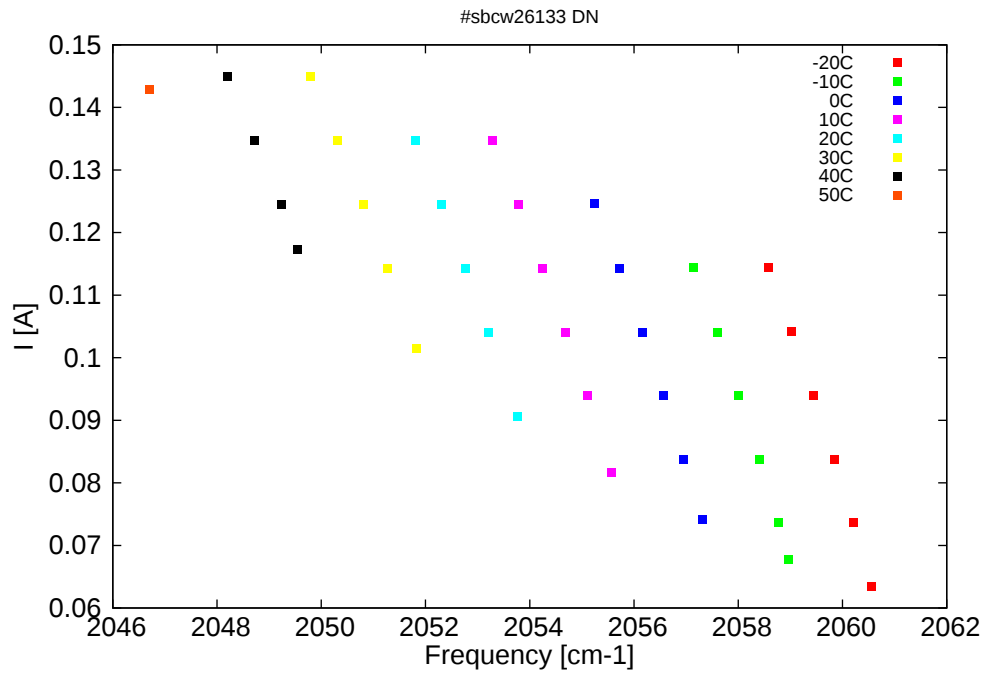


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
4853.1	2060.6	0.3	-20	12.41	0.063
4853.9	2060.2	2.4	-20	12.77	0.074
4854.7	2059.8	4.8	-20	13.14	0.084
4855.7	2059.5	7	-20	13.51	0.094
4856.7	2059	8.9	-20	13.9	0.104
4857.7	2058.6	10.3	-20	14.31	0.114
4856.8	2059	0.3	-10	12.39	0.068
4857.3	2058.8	1.3	-10	12.58	0.074
4858.1	2058.4	3.2	-10	12.93	0.084
4859.1	2058	5.2	-10	13.28	0.094
4860	2057.6	7	-10	13.64	0.104
4861.1	2057.1	8.5	-10	14.01	0.114
4860.7	2057.3	0.2	0	12.44	0.074
4861.6	2057	1.8	0	12.74	0.084
4862.5	2056.6	3.5	0	13.07	0.094
4863.4	2056.2	5.2	0	13.41	0.104
4864.5	2055.7	6.7	0	13.76	0.114
4865.6	2055.2	8	0	14.12	0.125
4864.8	2055.6	0.2	10	12.53	0.082
4865.9	2055.1	1.9	10	12.9	0.094
4866.9	2054.7	3.4	10	13.21	0.104
4868	2054.2	4.8	10	13.54	0.114
4869.1	2053.8	6	10	13.87	0.125
4870.3	2053.3	7	10	14.23	0.135
4869.1	2053.8	0.2	20	12.67	0.091
4870.4	2053.2	1.7	20	13.05	0.104
4871.5	2052.8	2.9	20	13.36	0.114
4872.6	2052.3	4	20	13.67	0.125
4873.8	2051.8	4.8	20	13.99	0.135
4873.7	2051.8	0.1	30	12.85	0.101
4875	2051.3	1.1	30	13.2	0.114
4876.1	2050.8	2	30	13.5	0.125
4877.3	2050.3	2.7	30	13.79	0.135
4878.6	2049.8	3.2	30	14.11	0.145
4879.1	2049.5	0.1	40	13.17	0.117
4879.9	2049.2	0.5	40	13.35	0.125
4881.1	2048.7	1.1	40	13.63	0.135
4882.4	2048.2	1.7	40	13.92	0.145
4885.9	2046.7	0.1	50	13.73	0.143

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

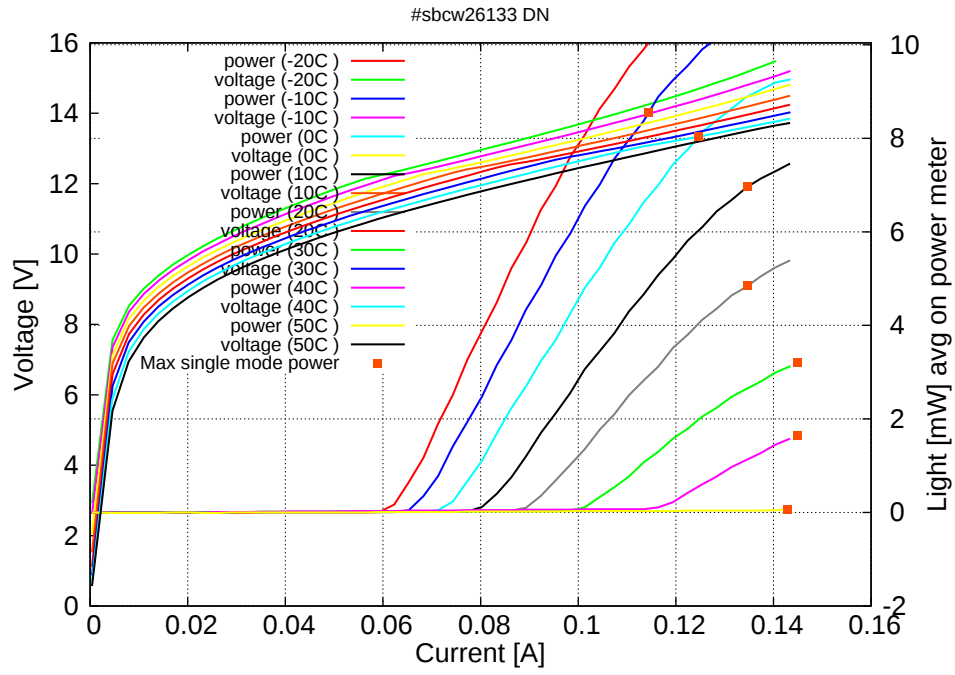


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.06A$ / $V_{th}=12.4V$ (2-wires measurements). Maximum operation current: 0.115A between -20C and -10C, 0.125A at 0C, 0.135A between 10C and 20C, 0.145A between 30C and 50C.

Figure 3: spectra at different temperatures for various DC currents

