

Datasheet for #sbcw26137 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 #sbcw26137 DN (please note that AlN submount numbering is A0U36)

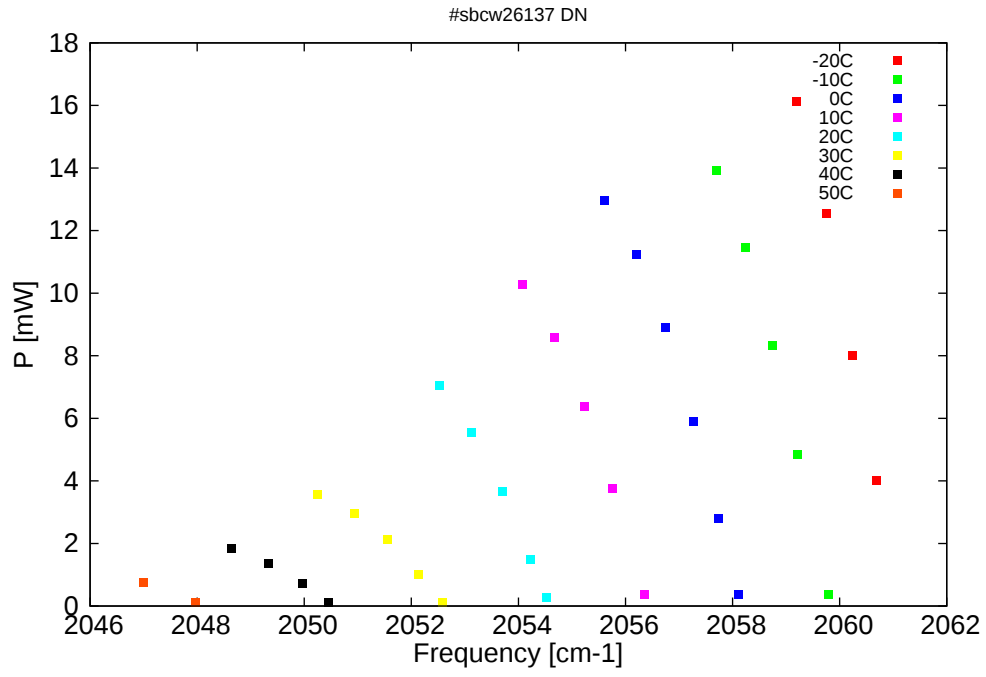


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

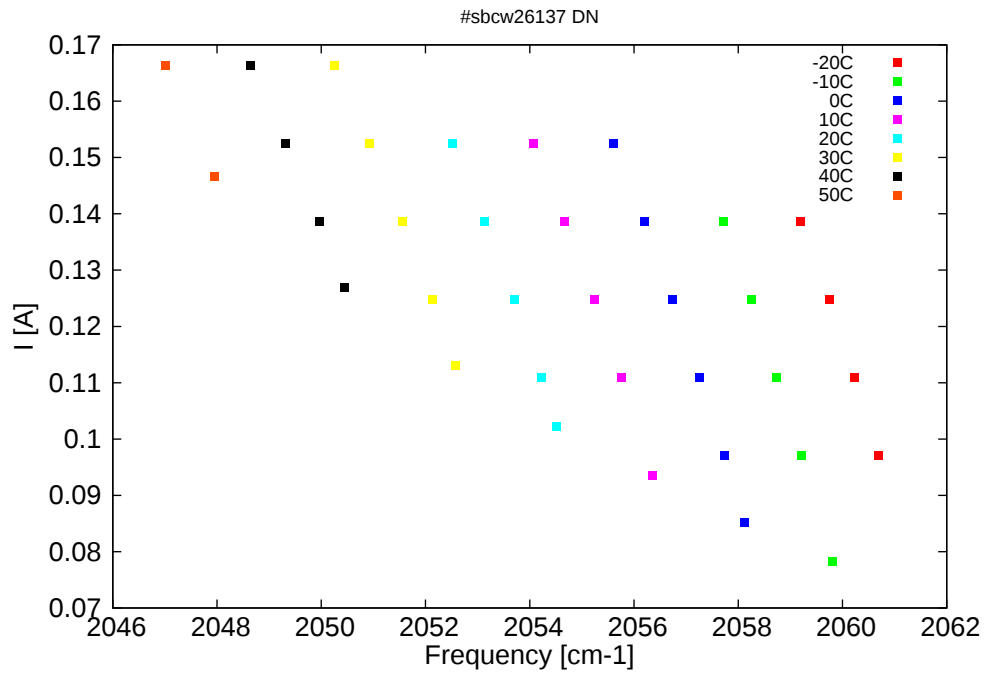


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
4852.7	2060.7	4	-20	12.29	0.097
4853.8	2060.2	8	-20	12.63	0.111
4855	2059.7	12.5	-20	13	0.125
4856.3	2059.2	16.1	-20	13.41	0.139
4854.8	2059.8	0.4	-10	11.67	0.078
4856.2	2059.2	4.9	-10	12.13	0.097
4857.3	2058.7	8.3	-10	12.48	0.111
4858.5	2058.2	11.5	-10	12.84	0.125
4859.8	2057.7	13.9	-10	13.21	0.139
4858.8	2058.1	0.4	0	11.69	0.085
4859.7	2057.7	2.8	0	11.97	0.097
4860.8	2057.3	5.9	0	12.3	0.111
4862.1	2056.7	8.9	0	12.64	0.125
4863.3	2056.2	11.2	0	13	0.139
4864.8	2055.6	13	0	13.39	0.153
4863	2056.4	0.4	10	11.78	0.094
4864.4	2055.8	3.7	10	12.18	0.111
4865.6	2055.2	6.4	10	12.51	0.125
4867	2054.7	8.6	10	12.86	0.139
4868.4	2054.1	10.3	10	13.23	0.153
4867.3	2054.5	0.3	20	11.9	0.102
4868	2054.2	1.5	20	12.08	0.111
4869.3	2053.7	3.7	20	12.4	0.125
4870.6	2053.1	5.6	20	12.74	0.139
4872.1	2052.5	7	20	13.1	0.153
4871.9	2052.6	0.1	30	12.05	0.113
4873	2052.1	1	30	12.31	0.125
4874.4	2051.6	2.1	30	12.63	0.139
4875.8	2050.9	3	30	12.98	0.153
4877.4	2050.3	3.6	30	13.34	0.166
4877	2050.4	0.1	40	12.3	0.127
4878.1	2050	0.7	40	12.55	0.139
4879.7	2049.3	1.4	40	12.88	0.153
4881.3	2048.6	1.8	40	13.23	0.166
4882.9	2048	0.1	50	12.67	0.147
4885.2	2047	0.7	50	13.13	0.166

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

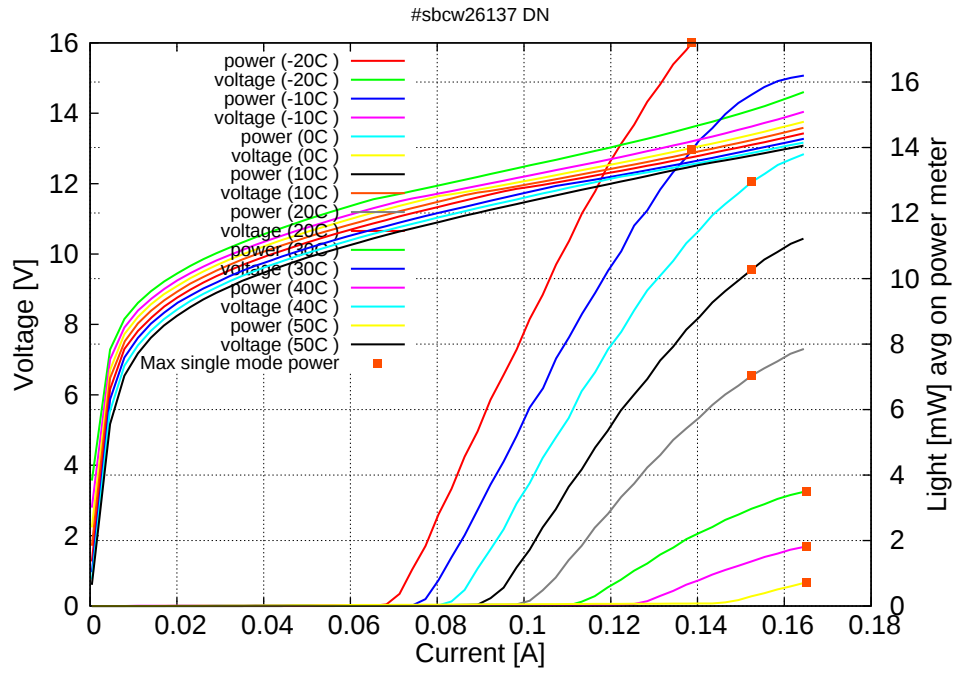


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.07A$ / $V_{th}=11.7V$ (2-wires measurements). Maximum operation current: 0.14A between -20C and -10C, 0.15A between 0C and 20C, 0.165A between 30C and 50C.

