

Datasheet for #sbcw26141 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.

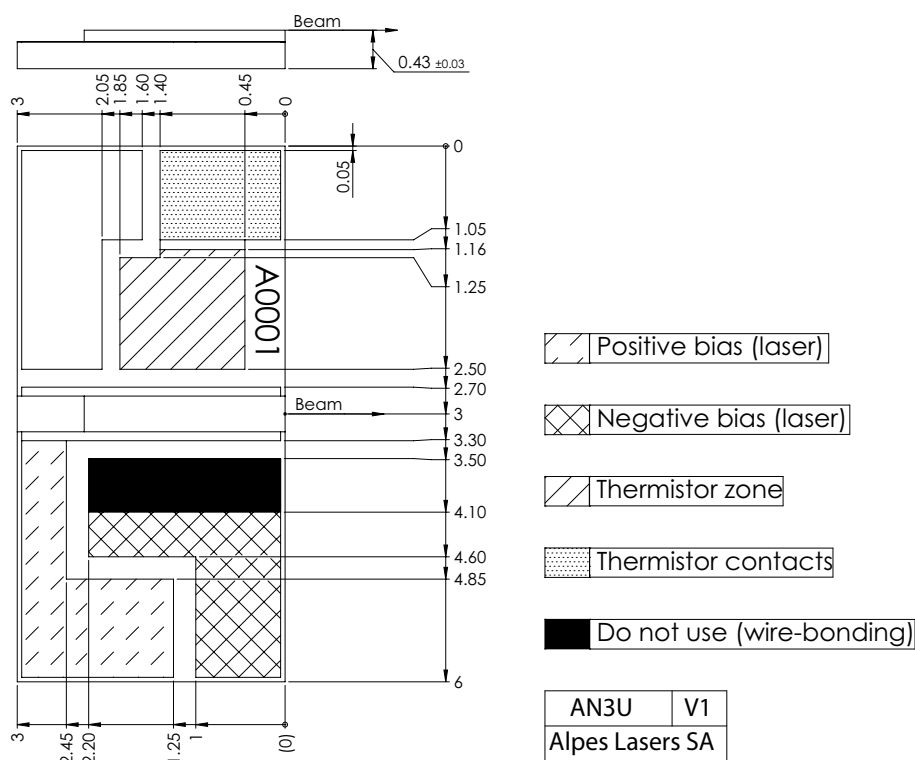


Figure 1: Mechanical and electrical interface for #sbcw26141 DN (please note that AlN submount numbering is A0XE2)

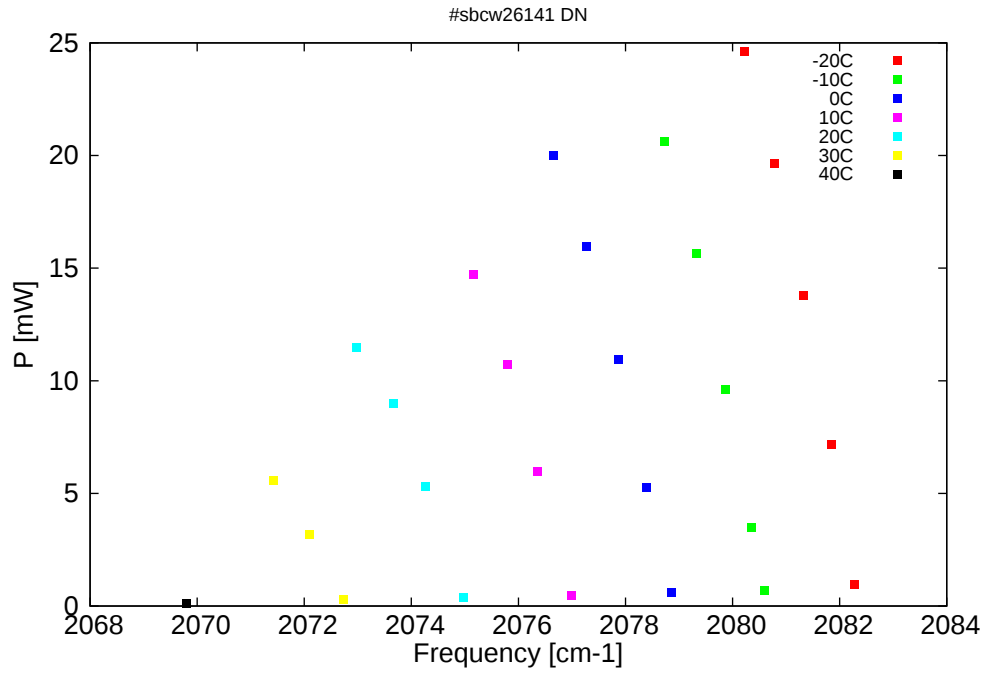


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

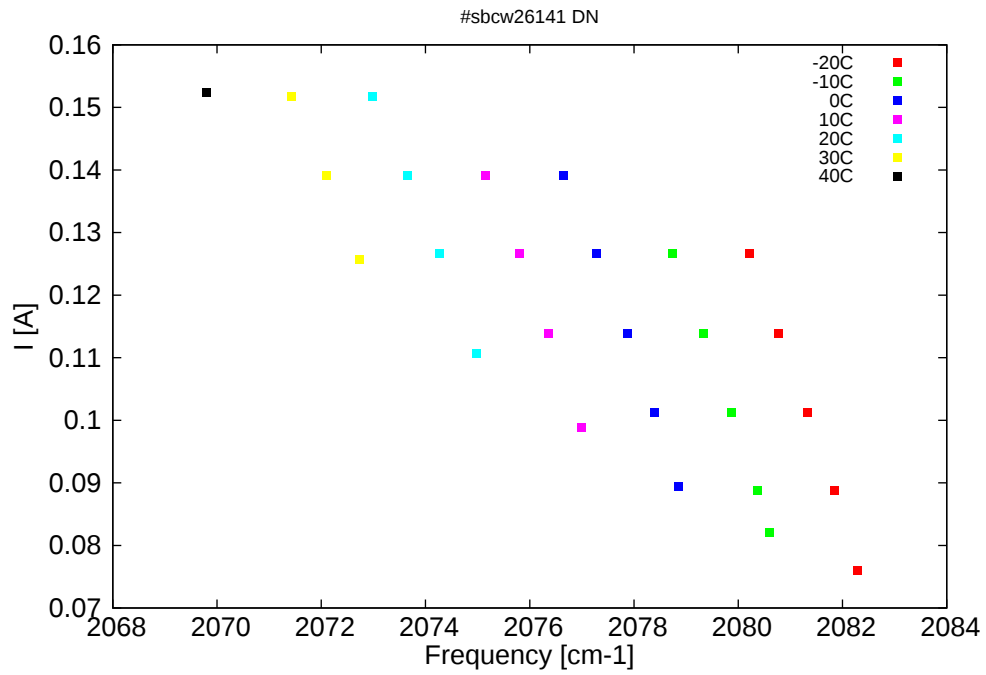


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
4802.4	2082.3	1	-20	12.94	0.076
4803.4	2081.8	7.2	-20	13.35	0.089
4804.6	2081.3	13.8	-20	13.79	0.101
4805.9	2080.8	19.7	-20	14.25	0.114
4807.2	2080.2	24.6	-20	14.74	0.127
4806.3	2080.6	0.7	-10	12.97	0.082
4806.9	2080.4	3.5	-10	13.16	0.089
4808	2079.9	9.6	-10	13.57	0.101
4809.2	2079.3	15.6	-10	13.99	0.114
4810.6	2078.7	20.6	-10	14.44	0.127
4810.3	2078.9	0.6	0	13.02	0.089
4811.4	2078.4	5.3	0	13.36	0.101
4812.6	2077.9	11	0	13.75	0.114
4814	2077.3	16	0	14.17	0.127
4815.4	2076.7	20	0	14.61	0.139
4814.7	2077	0.5	10	13.14	0.099
4816.1	2076.4	6	10	13.56	0.114
4817.4	2075.8	10.7	10	13.94	0.127
4818.9	2075.2	14.7	10	14.34	0.139
4819.3	2075	0.4	20	13.32	0.111
4821	2074.3	5.3	20	13.75	0.127
4822.4	2073.7	9	20	14.13	0.139
4824	2073	11.5	20	14.52	0.152
4824.5	2072.7	0.3	30	13.59	0.126
4826	2072.1	3.2	30	13.94	0.139
4827.6	2071.4	5.6	30	14.31	0.152
4831.4	2069.8	0.1	40	14.19	0.152

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

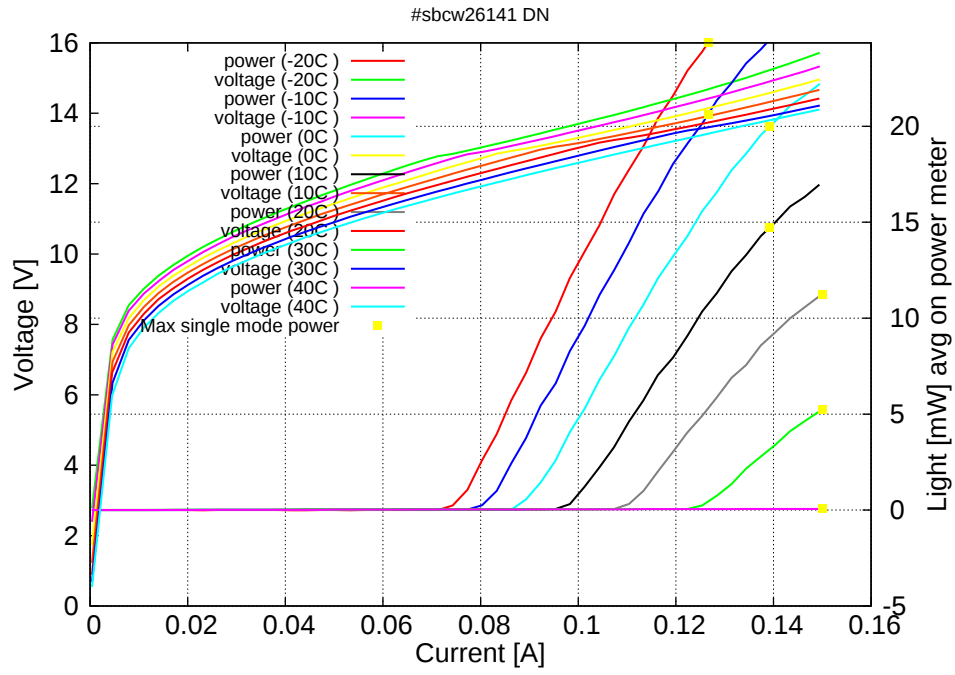


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.07A$ / $V_{th}=12.8V$ (2-wires measurements). Maximum operation current: 0.13A between -20C and -10C, 0.14A between 0C and 10C, 0.15A between 20C and 40C.

Figure 3: spectra at different temperatures for various DC currents

