

Datasheet for #sbcw26128 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.

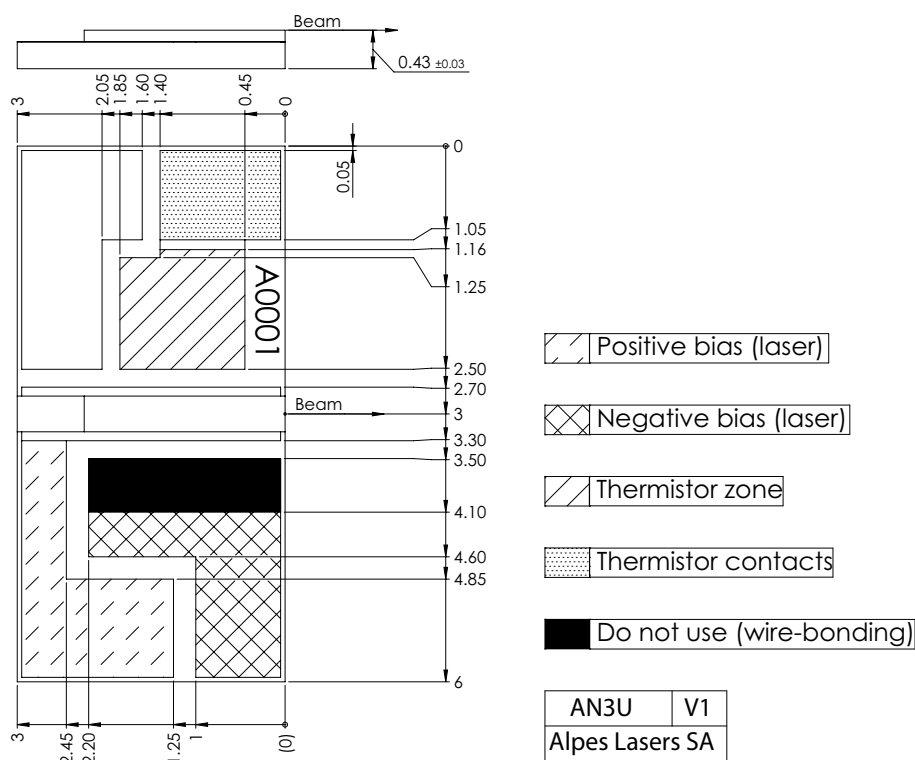


Figure 1: Mechanical and electrical interface for #sbcw26128 DN (please note that AlN submount numbering is A0U5H)

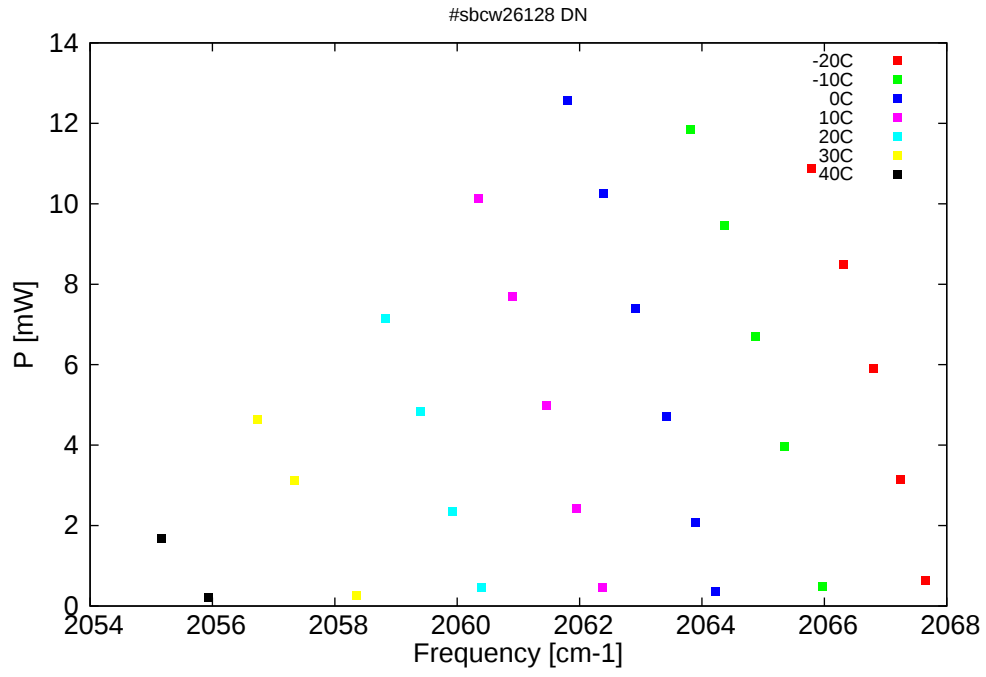


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

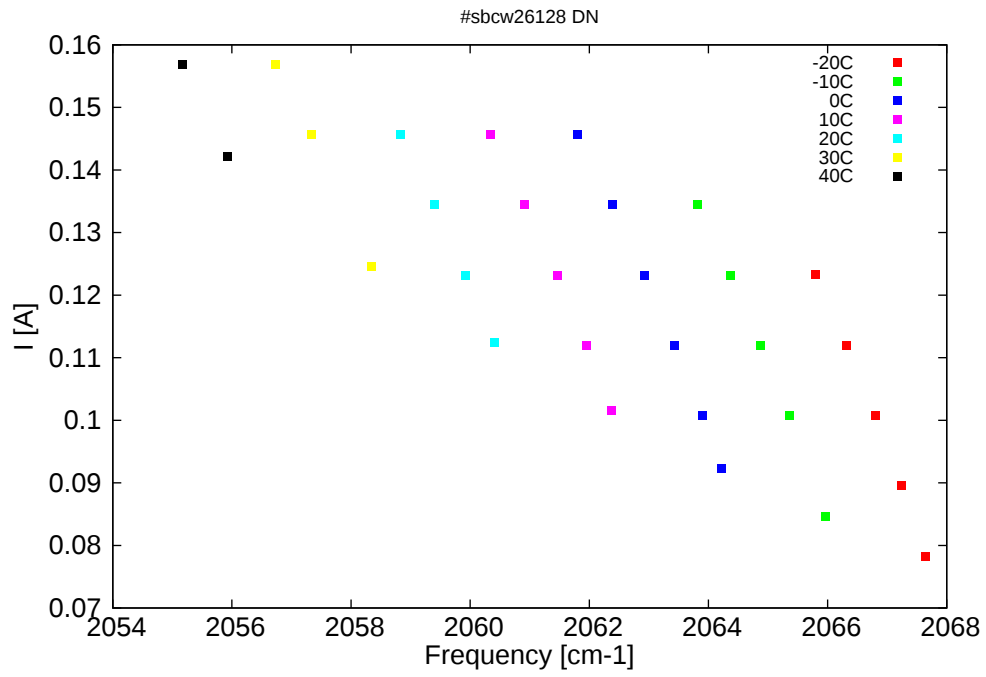


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
4836.4	2067.6	0.6	-20	13.2	0.078
4837.3	2067.2	3.1	-20	13.62	0.09
4838.4	2066.8	5.9	-20	14.06	0.101
4839.5	2066.3	8.5	-20	14.53	0.112
4840.7	2065.8	10.9	-20	15.05	0.123
4840.4	2066	0.5	-10	13.22	0.085
4841.8	2065.4	4	-10	13.78	0.101
4842.9	2064.9	6.7	-10	14.2	0.112
4844.1	2064.4	9.5	-10	14.65	0.123
4845.4	2063.8	11.9	-10	15.14	0.135
4844.4	2064.2	0.4	0	13.22	0.092
4845.2	2063.9	2.1	0	13.48	0.101
4846.3	2063.4	4.7	0	13.86	0.112
4847.5	2062.9	7.4	0	14.25	0.123
4848.8	2062.4	10.3	0	14.67	0.135
4850.1	2061.8	12.6	0	15.13	0.146
4848.8	2062.4	0.5	10	13.32	0.102
4849.8	2062	2.4	10	13.63	0.112
4850.9	2061.5	5	10	13.98	0.123
4852.2	2060.9	7.7	10	14.36	0.135
4853.6	2060.3	10.1	10	14.75	0.146
4853.4	2060.4	0.5	20	13.48	0.112
4854.5	2059.9	2.3	20	13.78	0.123
4855.8	2059.4	4.8	20	14.11	0.134
4857.1	2058.8	7.2	20	14.46	0.146
4858.3	2058.3	0.3	30	13.68	0.125
4860.7	2057.3	3.1	30	14.24	0.146
4862.1	2056.7	4.6	30	14.58	0.157
4864	2055.9	0.2	40	14.01	0.142
4865.8	2055.2	1.7	40	14.39	0.157

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

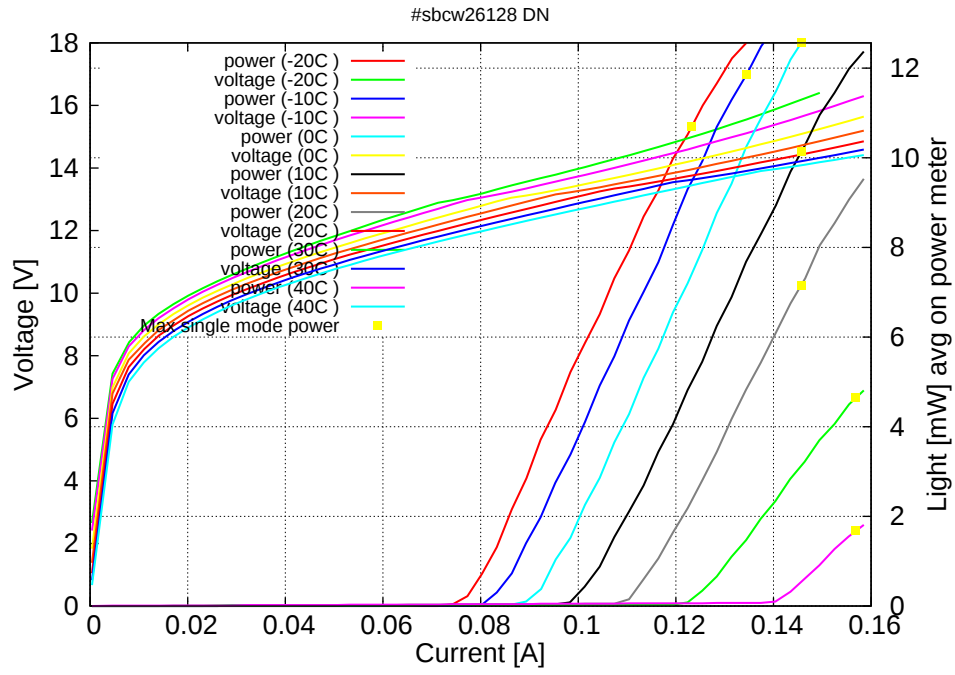


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.07A$ / $V_{th}=13.0V$ (2-wires measurements). Maximum operation current: 0.125A at -20C, 0.135A at -10C, 0.145A between 0C and 20C, 0.16A between 30C and 40C.

Figure 3: spectra at different temperatures for various DC currents

