

Datasheet for #sbcw26129 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.

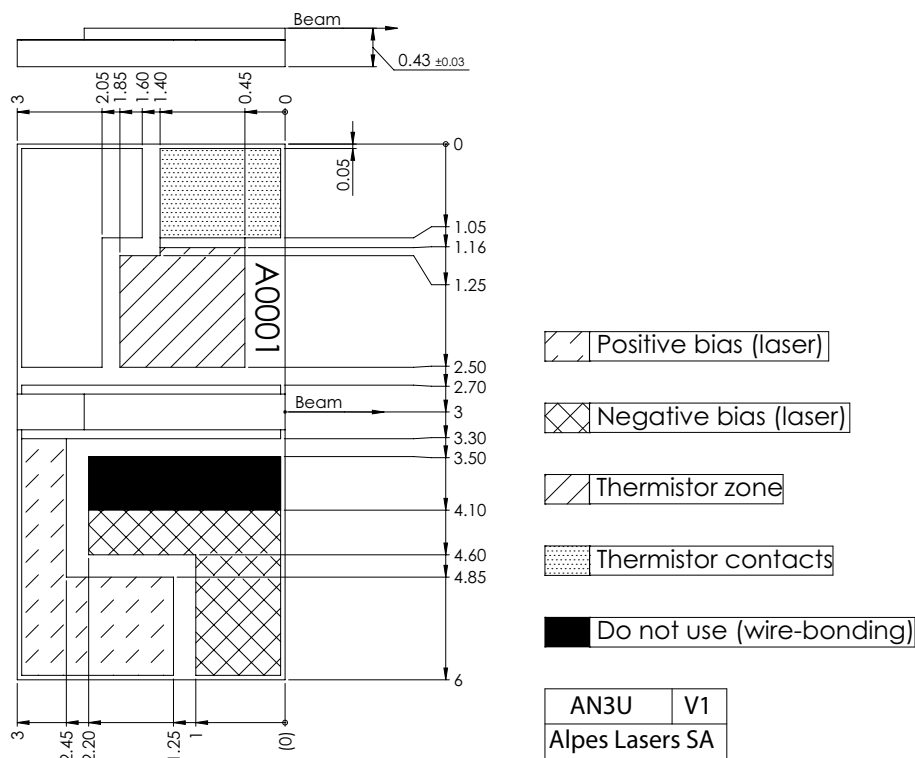


Figure 1: Mechanical and electrical interface for #sbcw26129 DN (please note that AlN submount numbering is A0U5J)

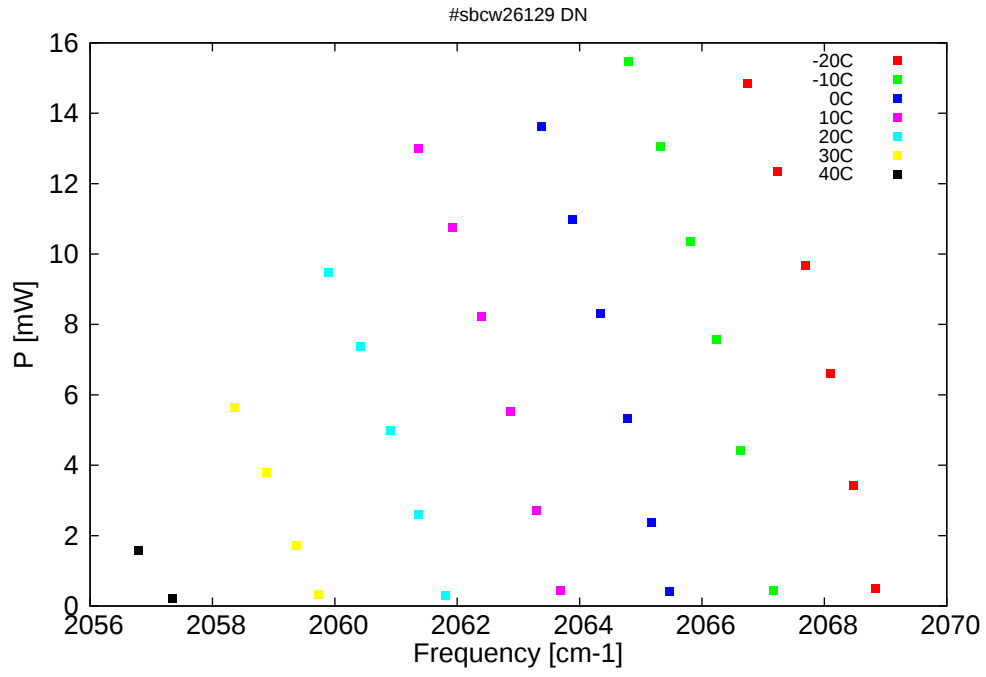


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

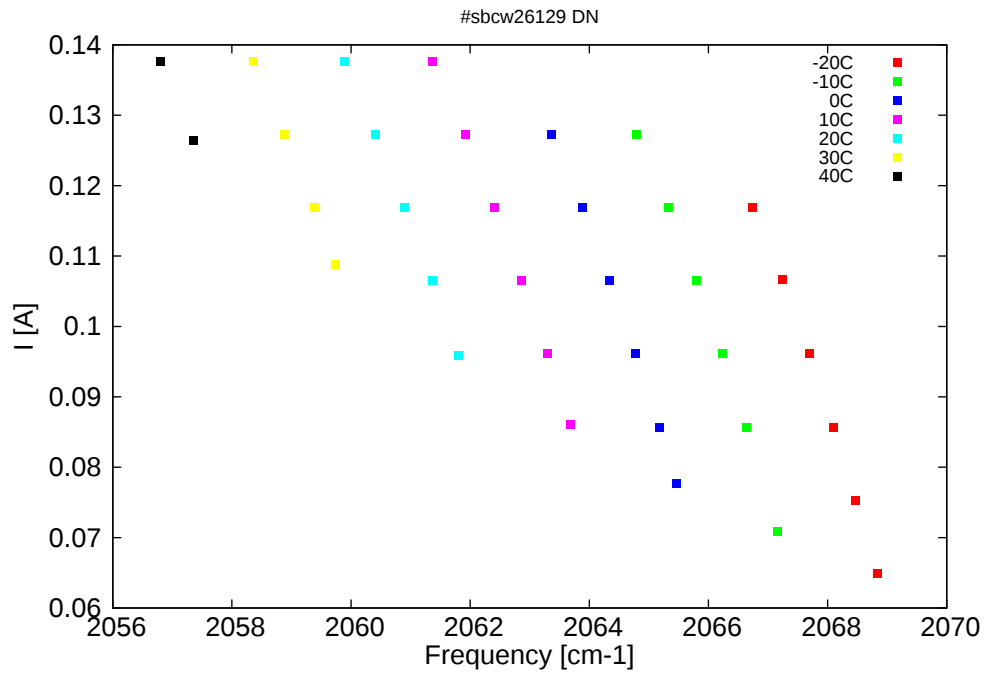


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
4833.7	2068.8	0.5	-20	12.6	0.065
4834.5	2068.5	3.4	-20	12.97	0.075
4835.3	2068.1	6.6	-20	13.34	0.086
4836.3	2067.7	9.7	-20	13.74	0.096
4837.4	2067.2	12.3	-20	14.16	0.107
4838.5	2066.7	14.8	-20	14.62	0.117
4837.5	2067.2	0.4	-10	12.63	0.071
4838.8	2066.6	4.4	-10	13.13	0.086
4839.7	2066.2	7.6	-10	13.5	0.096
4840.7	2065.8	10.4	-10	13.88	0.107
4841.9	2065.3	13.1	-10	14.28	0.117
4843.1	2064.8	15.5	-10	14.73	0.127
4841.5	2065.5	0.4	0	12.68	0.078
4842.2	2065.2	2.4	0	12.93	0.086
4843.1	2064.8	5.3	0	13.26	0.096
4844.2	2064.3	8.3	0	13.62	0.107
4845.2	2063.9	11	0	13.98	0.117
4846.4	2063.4	13.6	0	14.38	0.127
4845.7	2063.7	0.4	10	12.78	0.086
4846.6	2063.3	2.7	10	13.08	0.096
4847.6	2062.9	5.5	10	13.4	0.107
4848.7	2062.4	8.2	10	13.74	0.117
4849.9	2061.9	10.8	10	14.09	0.127
4851.1	2061.4	13	10	14.47	0.138
4850.1	2061.8	0.3	20	12.93	0.096
4851.1	2061.4	2.6	20	13.22	0.107
4852.2	2060.9	5	20	13.53	0.117
4853.4	2060.4	7.4	20	13.85	0.127
4854.6	2059.9	9.5	20	14.19	0.138
4855	2059.7	0.3	30	13.15	0.109
4855.8	2059.4	1.7	30	13.36	0.117
4857	2058.9	3.8	30	13.65	0.127
4858.2	2058.4	5.6	30	13.96	0.138
4860.6	2057.4	0.2	40	13.48	0.126
4861.9	2056.8	1.6	40	13.77	0.138

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

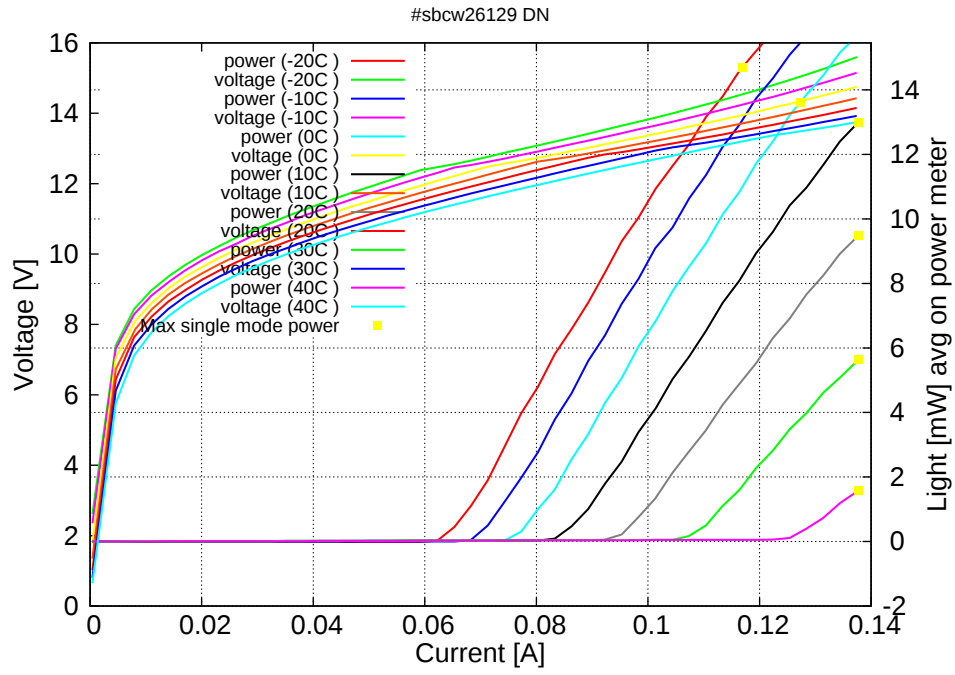


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.06A$ / $V_{th}=12.5V$ (2-wires measurements). Maximum operation current: 0.12A at -20C, 0.13A between -10C and 0C, 0.14A between 10C and 40C.

Figure 3: spectra at different temperatures for various DC currents

