

**Datasheet for #sbcw22835 DN**

Recommendations:

Please read the User Manual and have a look at the FAQ at <http://www.alpeslasers.ch/?a=142>

**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.

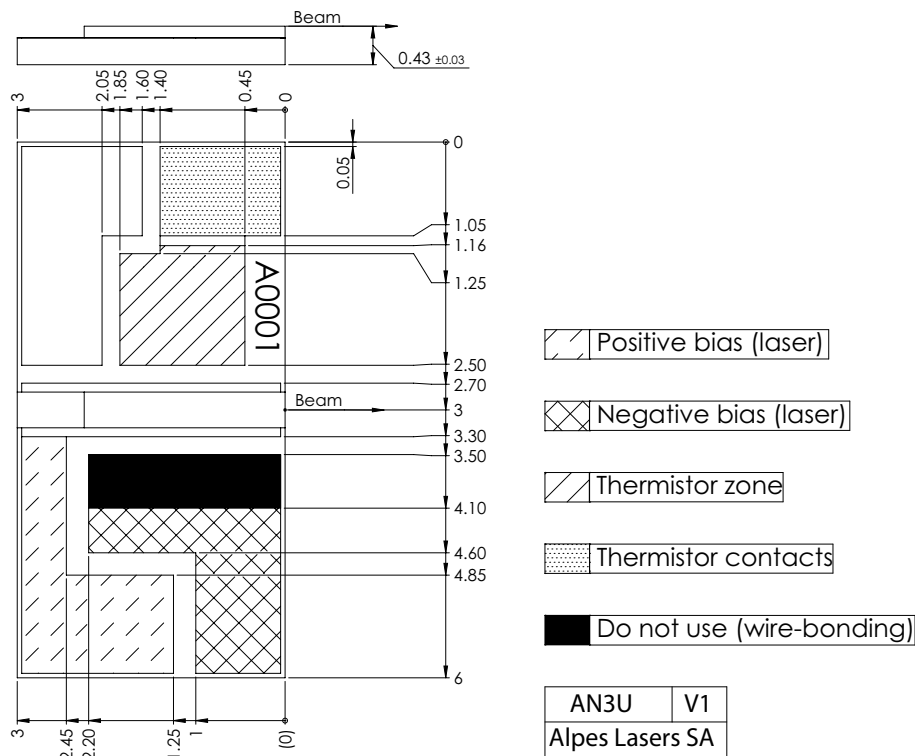


Figure 1: Mechanical and electrical interface for #sbcw22835 DN (please note that AlN submount numbering is A0WY3)

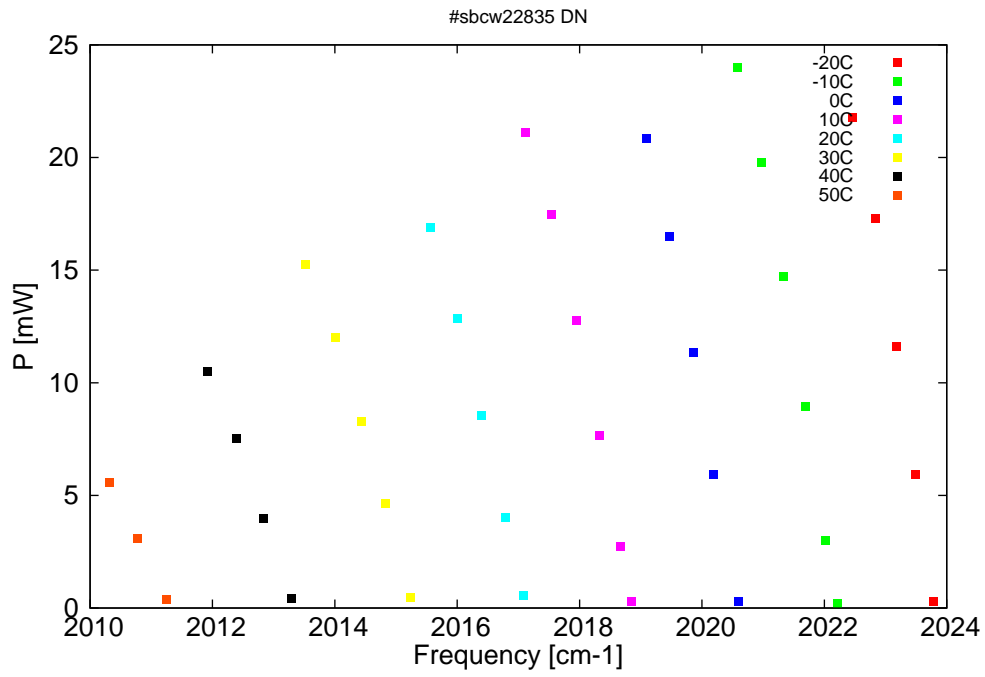


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

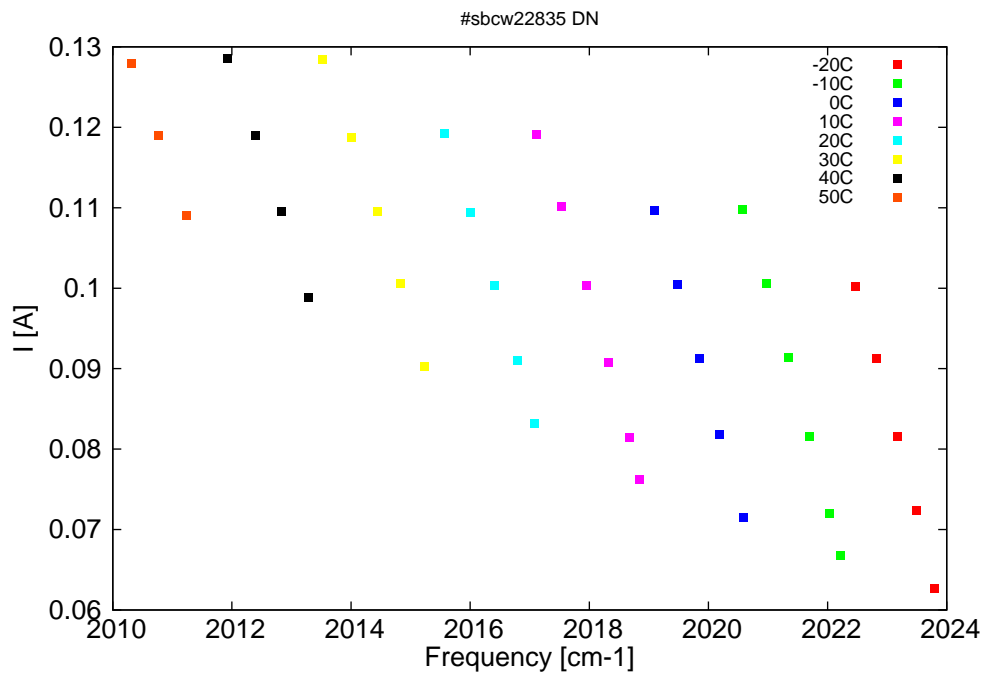


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
4941.2	2023.8	0.3	-20	11.76	0.063
4941.9	2023.5	5.9	-20	12.04	0.072
4942.7	2023.2	11.6	-20	12.33	0.082
4943.6	2022.8	17.3	-20	12.65	0.091
4944.5	2022.5	21.8	-20	12.98	0.1
4945.1	2022.2	0.2	-10	11.71	0.067
4945.5	2022	3	-10	11.85	0.072
4946.3	2021.7	9	-10	12.13	0.082
4947.2	2021.3	14.7	-10	12.43	0.091
4948.1	2021	19.8	-10	12.73	0.101
4949.1	2020.6	24	-10	13.08	0.11
4949	2020.6	0.3	0	11.7	0.071
4950	2020.2	5.9	0	11.97	0.082
4950.8	2019.9	11.3	0	12.24	0.091
4951.8	2019.5	16.5	0	12.53	0.1
4952.7	2019.1	20.9	0	12.83	0.11
4953.3	2018.9	0.3	10	11.71	0.076
4953.7	2018.7	2.7	10	11.83	0.081
4954.6	2018.3	7.7	10	12.08	0.091
4955.5	2017.9	12.8	10	12.36	0.1
4956.5	2017.5	17.5	10	12.65	0.11
4957.6	2017.1	21.1	10	12.95	0.119
4957.7	2017.1	0.5	20	11.77	0.083
4958.4	2016.8	4	20	11.95	0.091
4959.3	2016.4	8.5	20	12.2	0.1
4960.3	2016	12.8	20	12.47	0.109
4961.4	2015.6	16.9	20	12.76	0.119
4962.2	2015.2	0.5	30	11.84	0.09
4963.2	2014.8	4.7	30	12.08	0.101
4964.2	2014.4	8.3	30	12.31	0.11
4965.2	2014	12	30	12.58	0.119
4966.4	2013.5	15.2	30	12.87	0.128
4967	2013.3	0.4	40	11.95	0.099
4968.1	2012.8	4	40	12.19	0.11
4969.2	2012.4	7.5	40	12.44	0.119
4970.4	2011.9	10.5	40	12.71	0.129
4972	2011.2	0.4	50	12.1	0.109
4973.2	2010.8	3.1	50	12.33	0.119
4974.3	2010.3	5.6	50	12.56	0.128

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

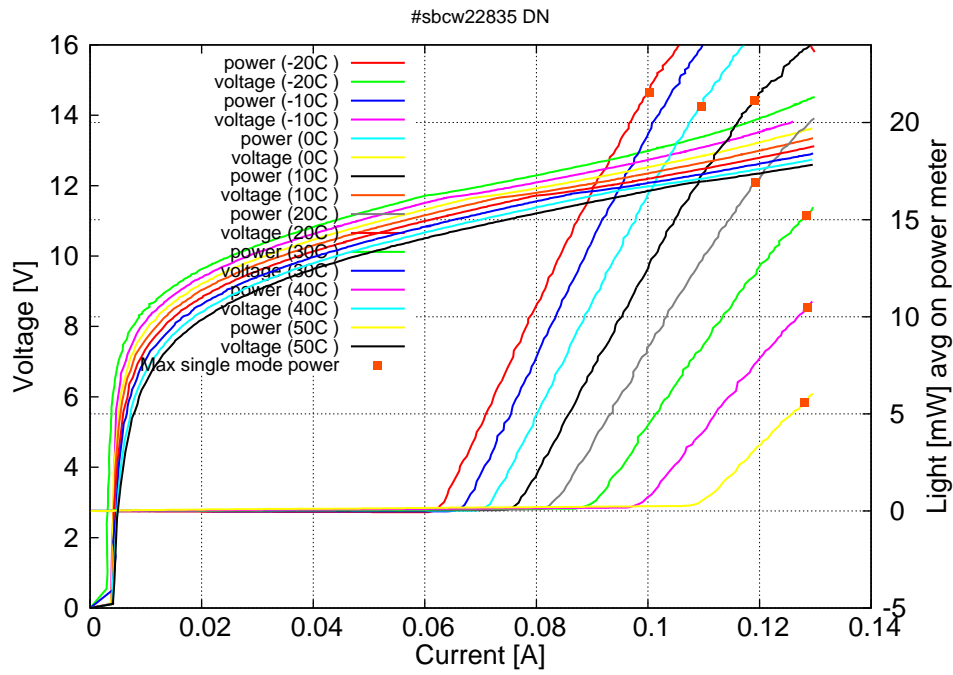


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.06A$  /  $V_{th}=11.7V$  (2-wires measurements). Maximum operation current: 0.10A at -20C, 0.11A between -10C and 0C, 0.12A between 10C and 20C, 0.13A between 30C and 50C.

Figure 3: spectra at different temperatures for various DC currents

