

Datasheet for #sbcw26583 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.

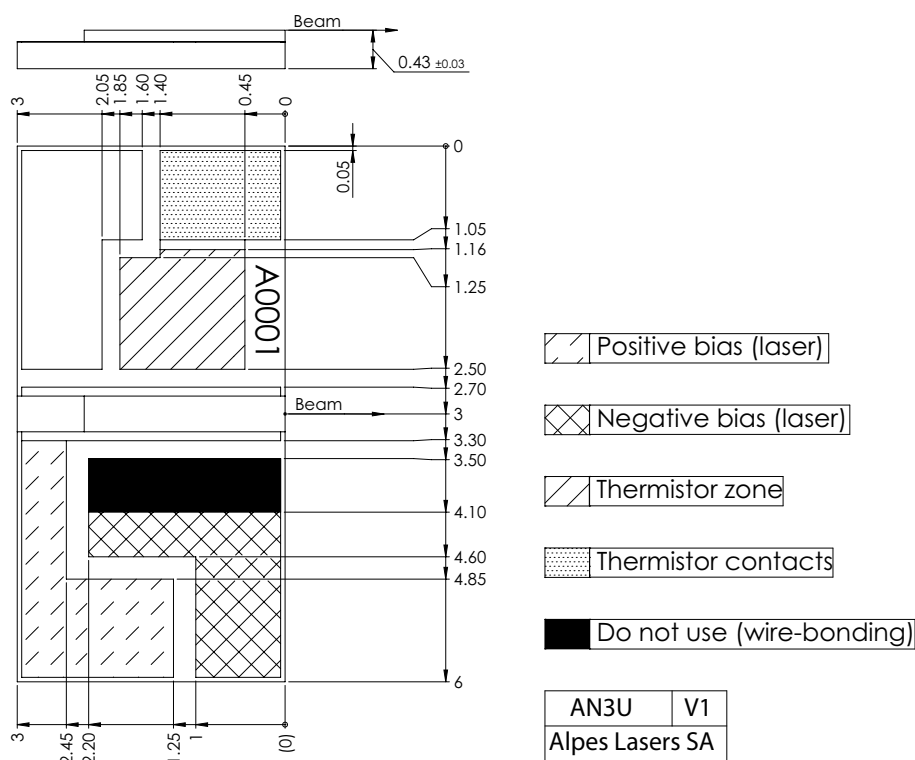


Figure 1: Mechanical and electrical interface for #sbcw26583 DN (please note that AlN submount numbering is A0U5A)

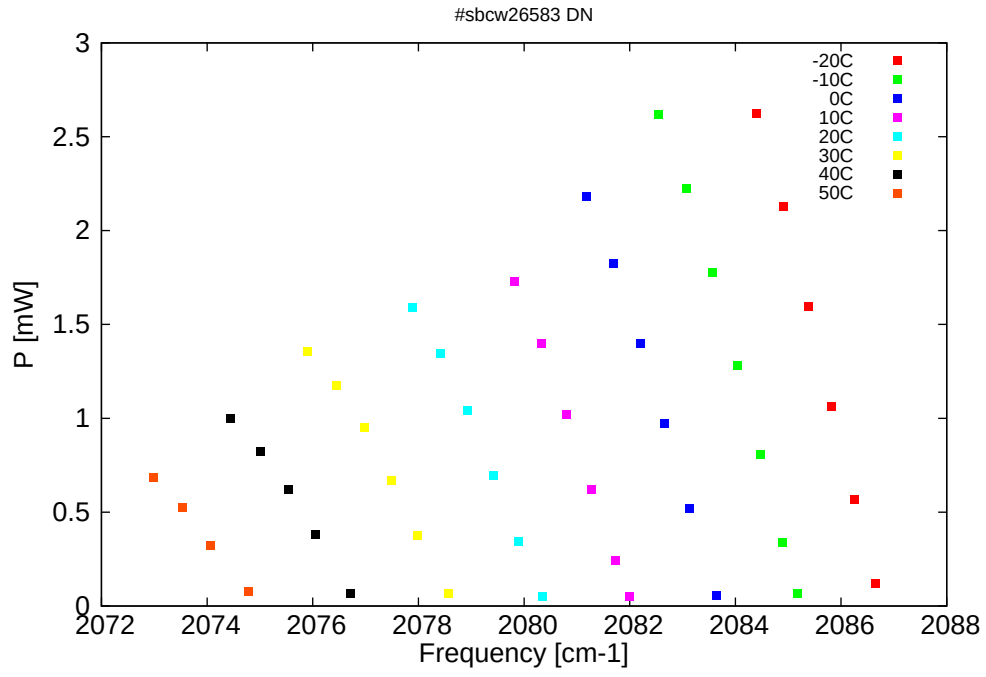


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

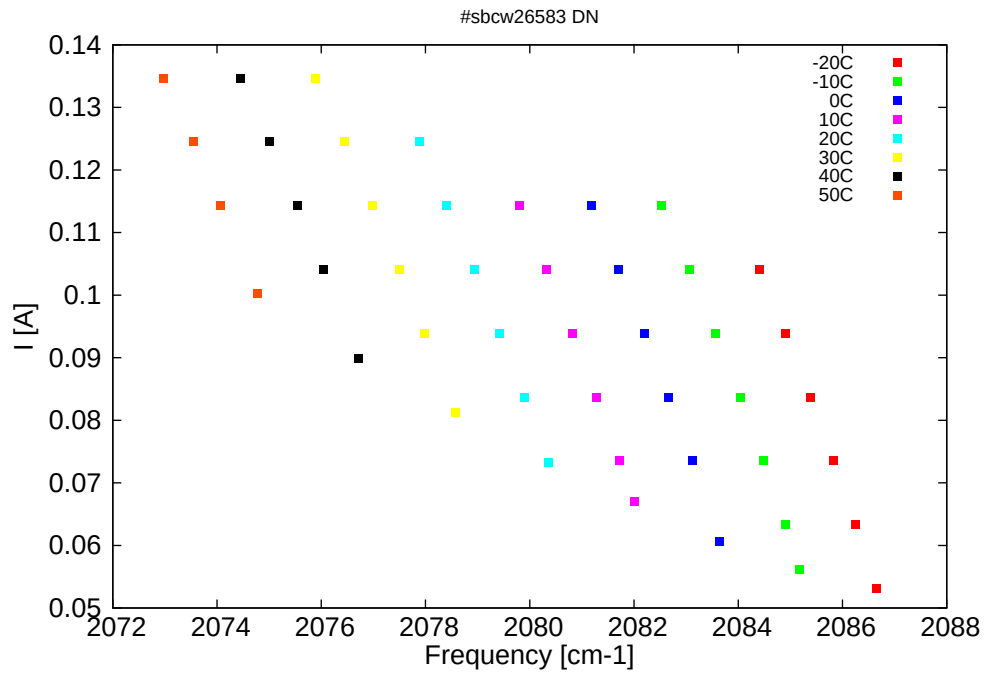


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
4792.4	2086.6	0.1	-20	12.34	0.053
4793.3	2086.2	0.6	-20	12.74	0.063
4794.3	2085.8	1.1	-20	13.14	0.074
4795.3	2085.4	1.6	-20	13.54	0.084
4796.4	2084.9	2.1	-20	13.94	0.094
4797.5	2084.4	2.6	-20	14.38	0.104
4795.7	2085.2	0.1	-10	12.29	0.056
4796.4	2084.9	0.3	-10	12.57	0.063
4797.4	2084.5	0.8	-10	12.95	0.074
4798.4	2084	1.3	-10	13.33	0.084
4799.5	2083.6	1.8	-10	13.72	0.094
4800.6	2083.1	2.2	-10	14.12	0.104
4801.8	2082.5	2.6	-10	14.54	0.114
4799.3	2083.6	0.1	0	12.3	0.061
4800.5	2083.1	0.5	0	12.77	0.074
4801.5	2082.7	1	0	13.14	0.084
4802.6	2082.2	1.4	0	13.5	0.094
4803.8	2081.7	1.8	0	13.87	0.104
4805	2081.2	2.2	0	14.27	0.114
4803.1	2082	0.1	10	12.39	0.067
4803.7	2081.7	0.2	10	12.6	0.074
4804.7	2081.3	0.6	10	12.94	0.084
4805.8	2080.8	1	10	13.28	0.094
4807	2080.3	1.4	10	13.63	0.104
4808.1	2079.8	1.7	10	13.98	0.114
4806.9	2080.4	0.1	20	12.44	0.073
4807.9	2079.9	0.3	20	12.76	0.084
4809	2079.4	0.7	20	13.09	0.094
4810.2	2078.9	1	20	13.41	0.104
4811.4	2078.4	1.3	20	13.75	0.114
4812.6	2077.9	1.6	20	14.09	0.125
4811	2078.6	0.1	30	12.56	0.081
4812.4	2078	0.4	30	12.93	0.094
4813.5	2077.5	0.7	30	13.24	0.104
4814.7	2077	0.9	30	13.55	0.114
4815.9	2076.4	1.2	30	13.87	0.125
4817.2	2075.9	1.4	30	14.21	0.135
4815.3	2076.7	0.1	40	12.68	0.09
4816.8	2076	0.4	40	13.08	0.104
4818	2075.5	0.6	40	13.37	0.114
4819.3	2075	0.8	40	13.67	0.125
4820.6	2074.4	1	40	13.98	0.135
4819.8	2074.8	0.1	50	12.86	0.1
4821.4	2074.1	0.3	50	13.23	0.114
4822.7	2073.5	0.5	50	13.5	0.125
4824	2073	0.7	50	13.79	0.135

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

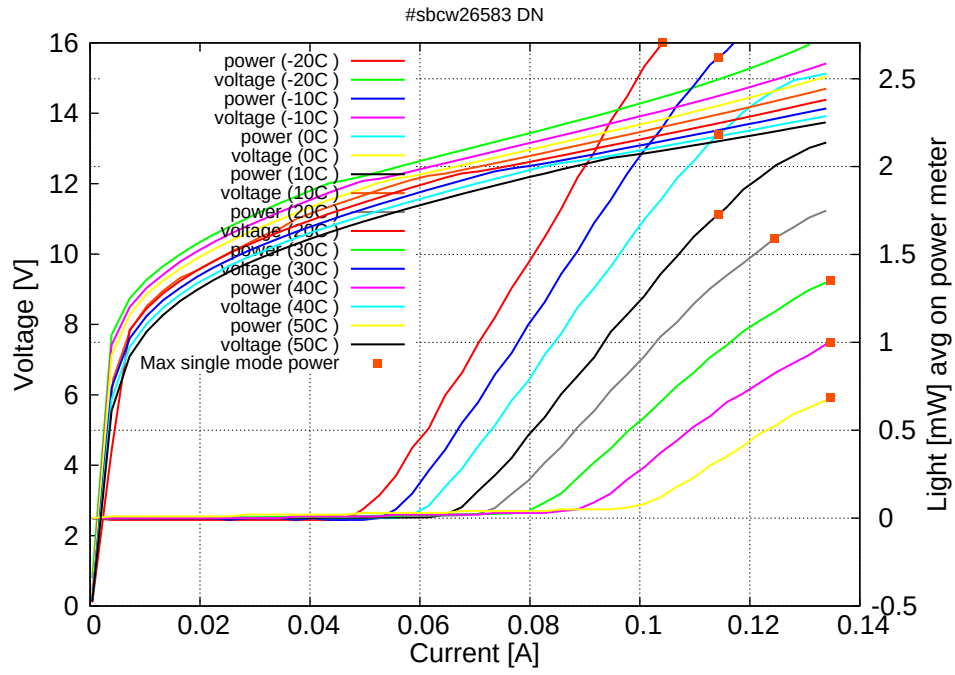


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.05A$ / $V_{th}=12.2V$ (2-wires measurements). Maximum operation current: 0.105A at -20C, 0.115A between -10C and 10C, 0.125A at 20C, 0.135A between 30C and 50C.

Figure 3: spectra at different temperatures for various DC currents

