

Datasheet for #sbcw26587 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 #sbcw26587 DN (please note that AlN submount numbering is A0XE3)

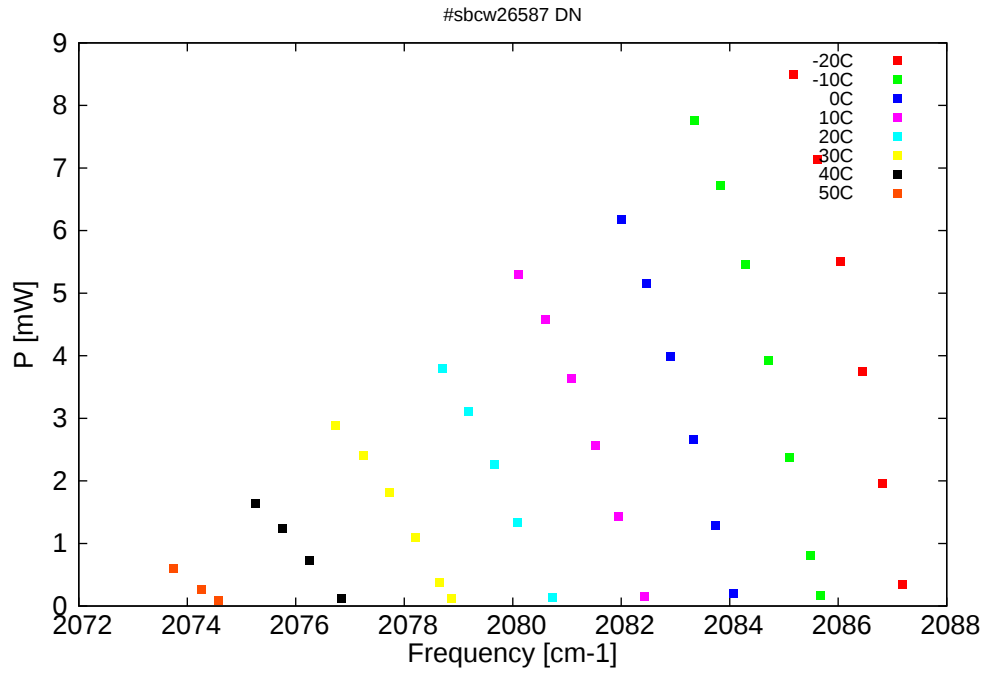


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

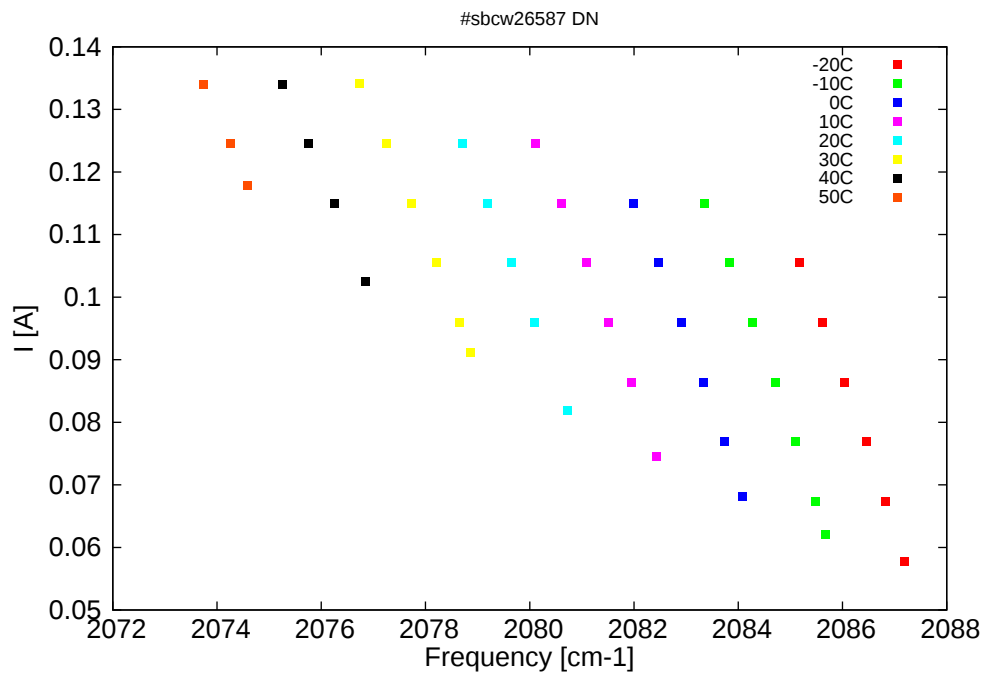


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
4791.2	2087.2	0.3	-20	12.58	0.058
4792	2086.8	2	-20	12.94	0.067
4792.8	2086.5	3.7	-20	13.31	0.077
4793.8	2086	5.5	-20	13.69	0.086
4794.7	2085.6	7.1	-20	14.08	0.096
4795.7	2085.2	8.5	-20	14.5	0.106
4794.6	2085.7	0.2	-10	12.58	0.062
4795.1	2085.5	0.8	-10	12.76	0.067
4795.9	2085.1	2.4	-10	13.1	0.077
4796.8	2084.7	3.9	-10	13.45	0.086
4797.8	2084.3	5.5	-10	13.81	0.096
4798.9	2083.8	6.7	-10	14.19	0.106
4800	2083.4	7.8	-10	14.6	0.115
4798.3	2084.1	0.2	0	12.62	0.068
4799.1	2083.7	1.3	0	12.91	0.077
4800	2083.3	2.7	0	13.24	0.086
4801	2082.9	4	0	13.57	0.096
4802	2082.5	5.2	0	13.92	0.106
4803.1	2082	6.2	0	14.29	0.115
4802.1	2082.4	0.2	10	12.69	0.075
4803.2	2081.9	1.4	10	13.05	0.086
4804.2	2081.5	2.6	10	13.36	0.096
4805.2	2081.1	3.6	10	13.69	0.106
4806.3	2080.6	4.6	10	14.02	0.115
4807.5	2080.1	5.3	10	14.37	0.125
4806	2080.7	0.1	20	12.78	0.082
4807.5	2080.1	1.3	20	13.19	0.096
4808.5	2079.7	2.3	20	13.48	0.106
4809.6	2079.2	3.1	20	13.79	0.115
4810.7	2078.7	3.8	20	14.11	0.125
4810.3	2078.9	0.1	30	12.92	0.091
4810.8	2078.6	0.4	30	13.05	0.096
4811.8	2078.2	1.1	30	13.31	0.106
4812.9	2077.7	1.8	30	13.6	0.115
4814.1	2077.2	2.4	30	13.89	0.125
4815.3	2076.7	2.9	30	14.19	0.134
4815	2076.8	0.1	40	13.12	0.103
4816.4	2076.2	0.7	40	13.43	0.115
4817.5	2075.8	1.2	40	13.7	0.125
4818.7	2075.3	1.6	40	13.97	0.134
4820.3	2074.6	0.1	50	13.4	0.118
4821	2074.3	0.3	50	13.56	0.125
4822.2	2073.7	0.6	50	13.8	0.134

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

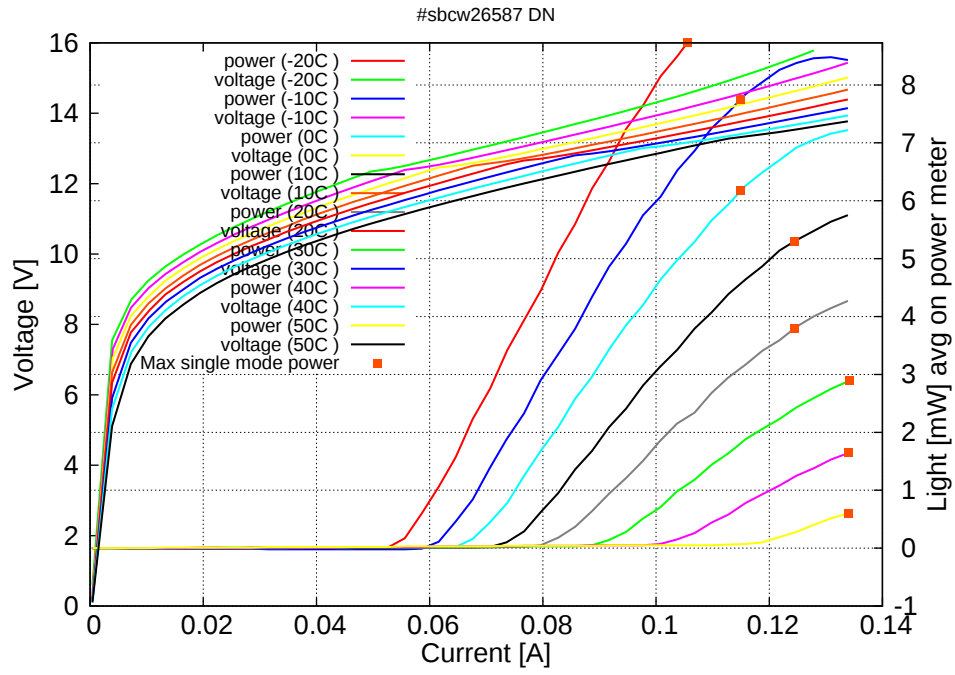


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.06A$ / $V_{th}=12.5V$ (2-wires measurements). Maximum operation current: 0.105A at -20C, 0.115A between -10C and 0C, 0.125A between 10C and 20C, 0.135A between 30C and 50C.

Figure 3: spectra at different temperatures for various DC currents

