

Datasheet for #sbcw25887 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.

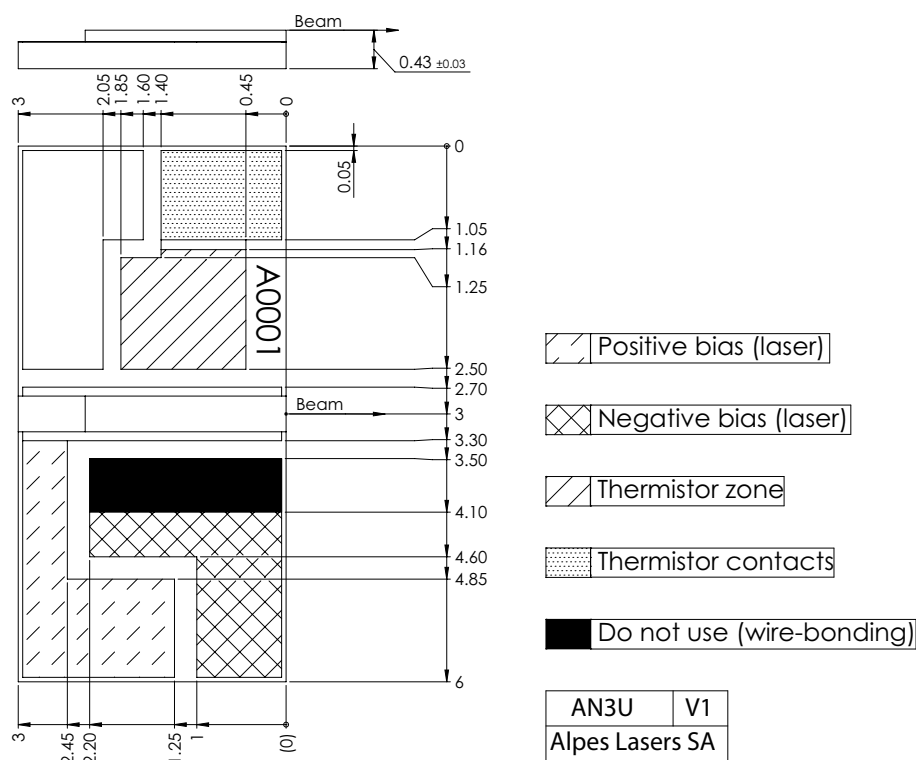


Figure 1: Mechanical and electrical interface for #sbcw25887 DN (please note that AlN submount numbering is A0VZ0)

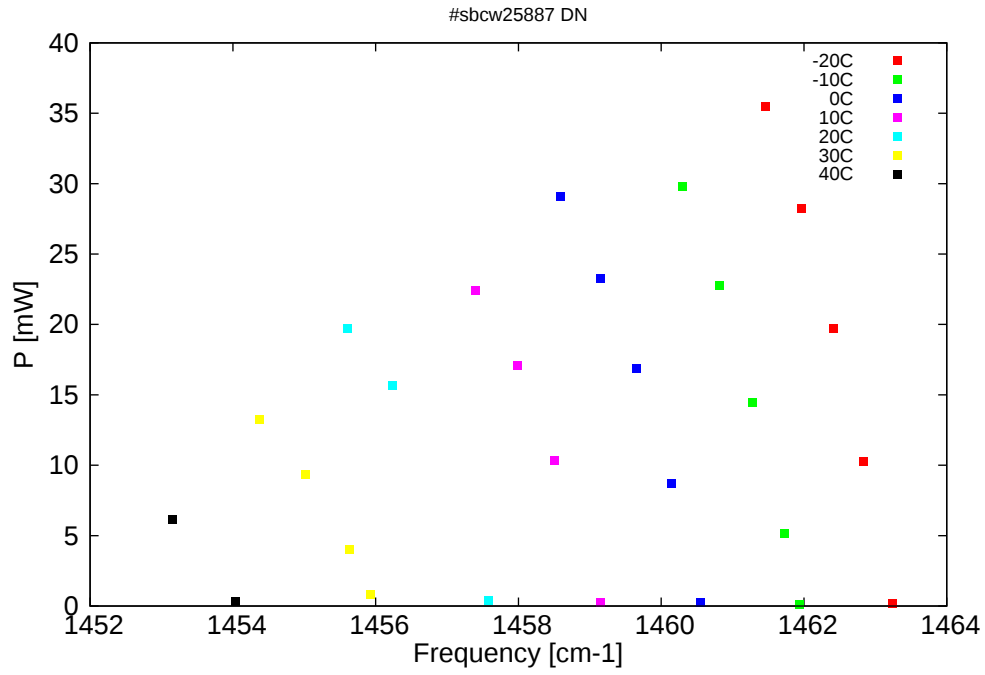


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

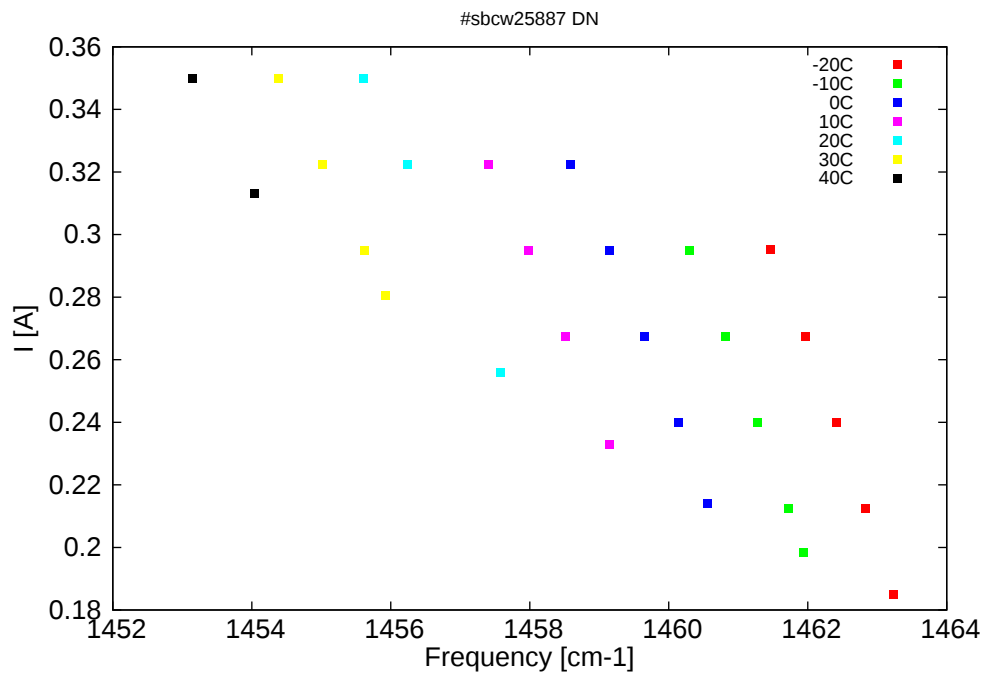


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
6834.2	1463.2	0.2	-20	10.84	0.185
6836	1462.8	10.2	-20	11.15	0.213
6838	1462.4	19.8	-20	11.44	0.24
6840.1	1462	28.3	-20	11.74	0.268
6842.5	1461.5	35.5	-20	12.04	0.295
6840.3	1461.9	0.1	-10	10.84	0.199
6841.2	1461.7	5.1	-10	10.99	0.213
6843.3	1461.3	14.5	-10	11.3	0.24
6845.5	1460.8	22.8	-10	11.6	0.268
6847.9	1460.3	29.8	-10	11.9	0.295
6846.7	1460.6	0.3	0	10.87	0.214
6848.6	1460.1	8.7	0	11.16	0.24
6850.9	1459.7	16.9	0	11.46	0.268
6853.3	1459.1	23.3	0	11.77	0.295
6856	1458.6	29.1	0	12.07	0.323
6853.3	1459.1	0.2	10	10.95	0.233
6856.3	1458.5	10.4	10	11.34	0.268
6858.8	1458	17.1	10	11.64	0.295
6861.5	1457.4	22.4	10	11.95	0.323
6860.7	1457.6	0.4	20	11.08	0.256
6867	1456.2	15.7	20	11.83	0.323
6870	1455.6	19.7	20	12.14	0.35
6868.5	1455.9	0.8	30	11.24	0.281
6869.9	1455.6	4	30	11.4	0.295
6872.7	1455	9.3	30	11.7	0.323
6875.8	1454.4	13.3	30	12.01	0.35
6877.4	1454	0.3	40	11.48	0.313
6881.6	1453.2	6.2	40	11.89	0.35

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

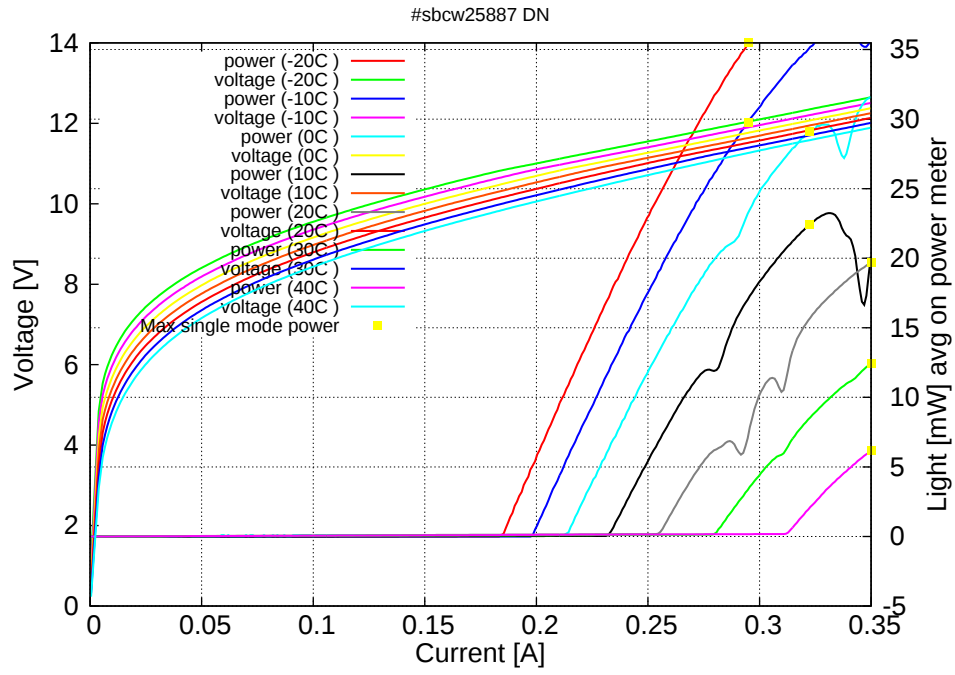


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.18A$ / $V_{th}=10.8V$ (2-wires measurements). Maximum operation current: 0.30A between -20C and -10C, 0.325A between 0C and 10C, 0.35A between 20C and 40C.

Figure 3: spectra at different temperatures for various DC currents

