

Datasheet for #sbcw25885 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.

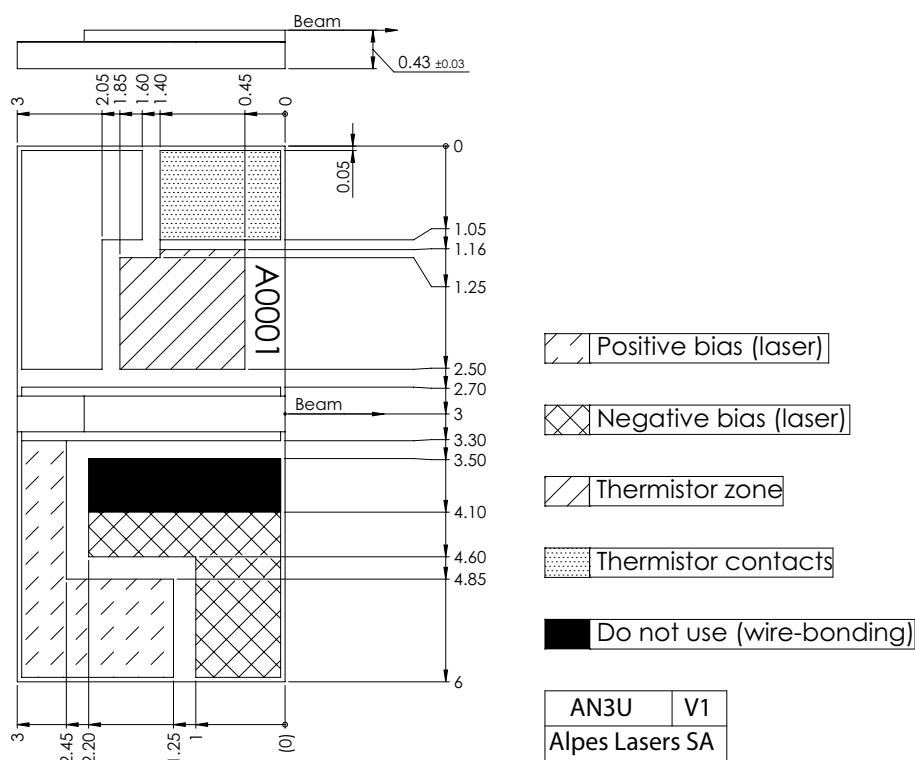


Figure 1: Mechanical and electrical interface for #sbcw25885 DN (please note that AlN submount numbering is A0VY5)

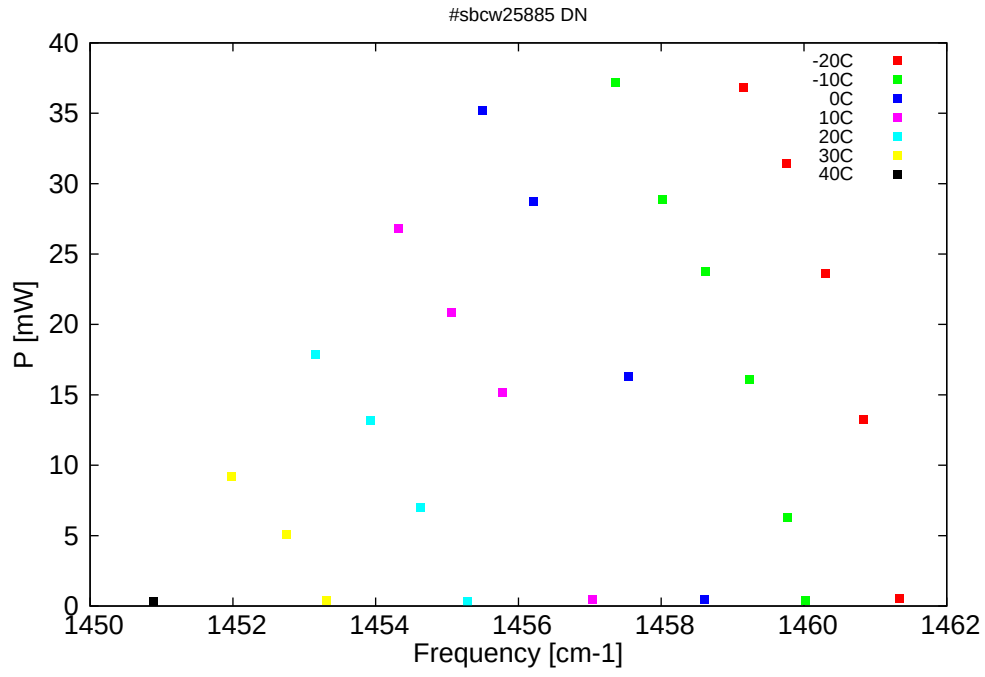


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

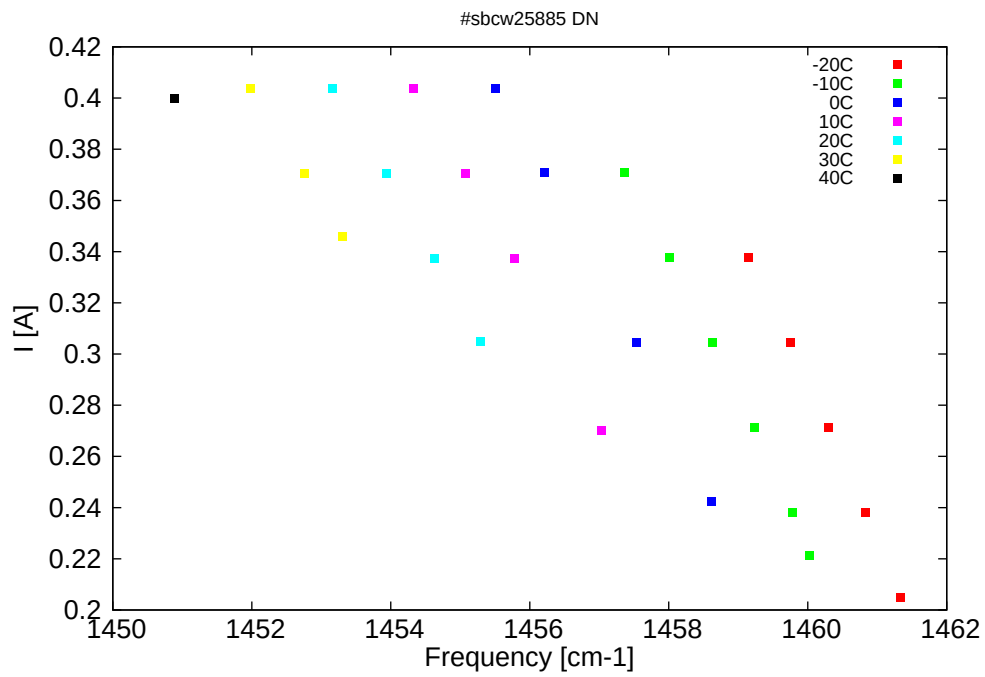


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
6843.1	1461.3	0.6	-20	10.74	0.205
6845.4	1460.8	13.2	-20	11.07	0.238
6847.9	1460.3	23.6	-20	11.39	0.271
6850.4	1459.8	31.5	-20	11.71	0.304
6853.3	1459.2	36.8	-20	12.02	0.338
6849.2	1460	0.4	-10	10.75	0.221
6850.4	1459.8	6.3	-10	10.91	0.238
6852.9	1459.2	16.1	-10	11.25	0.271
6855.8	1458.6	23.8	-10	11.57	0.304
6858.6	1458	28.9	-10	11.88	0.338
6861.7	1457.4	37.2	-10	12.18	0.371
6855.8	1458.6	0.5	0	10.81	0.243
6860.9	1457.5	16.3	0	11.42	0.304
6867.1	1456.2	28.7	0	12.05	0.371
6870.5	1455.5	35.2	0	12.36	0.404
6863.2	1457	0.4	10	10.88	0.27
6869.2	1455.8	15.2	10	11.51	0.338
6872.5	1455.1	20.8	10	11.82	0.371
6876	1454.3	26.8	10	12.11	0.404
6871.5	1455.3	0.3	20	11.07	0.305
6874.6	1454.6	7	20	11.37	0.338
6877.9	1453.9	13.2	20	11.68	0.371
6881.5	1453.2	17.9	20	11.98	0.404
6880.8	1453.3	0.4	30	11.32	0.346
6883.5	1452.8	5.1	30	11.54	0.371
6887.1	1452	9.2	30	11.85	0.404
6892.3	1450.9	0.3	40	11.67	0.4

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

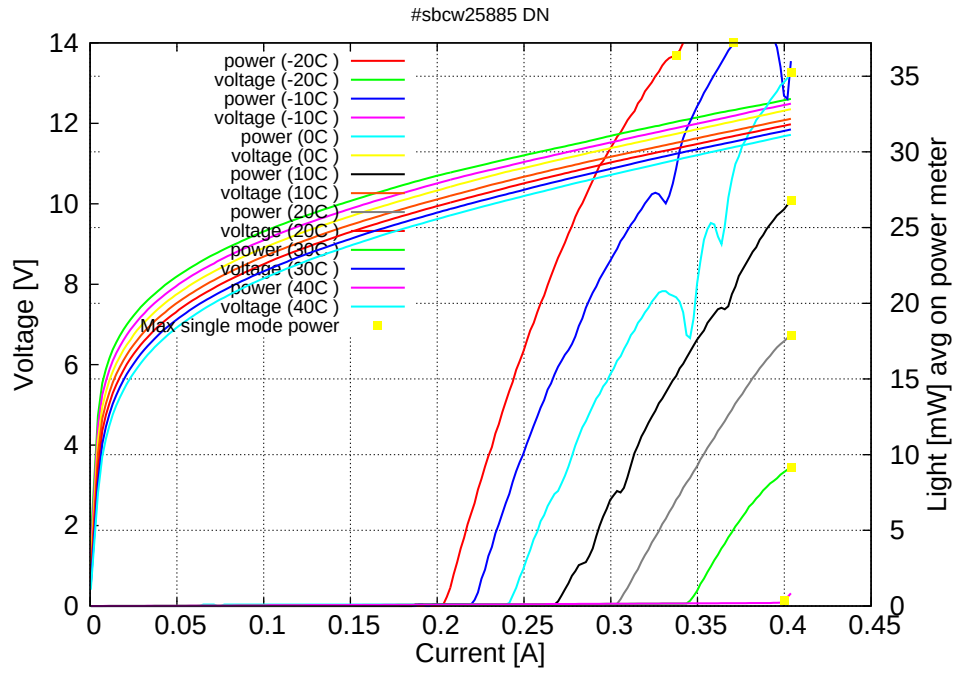


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.20A$ / $V_{th}=10.6V$ (2-wires measurements). Maximum operation current: 0.34A at -20C, 0.37A at -10C, 0.405A between 0C and 40C.

Figure 3: spectra at different temperatures for various DC currents

