

**Datasheet for #sbcw24425 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 #sbcw24425 DN (please note that AlN submount numbering is A0ZD1)

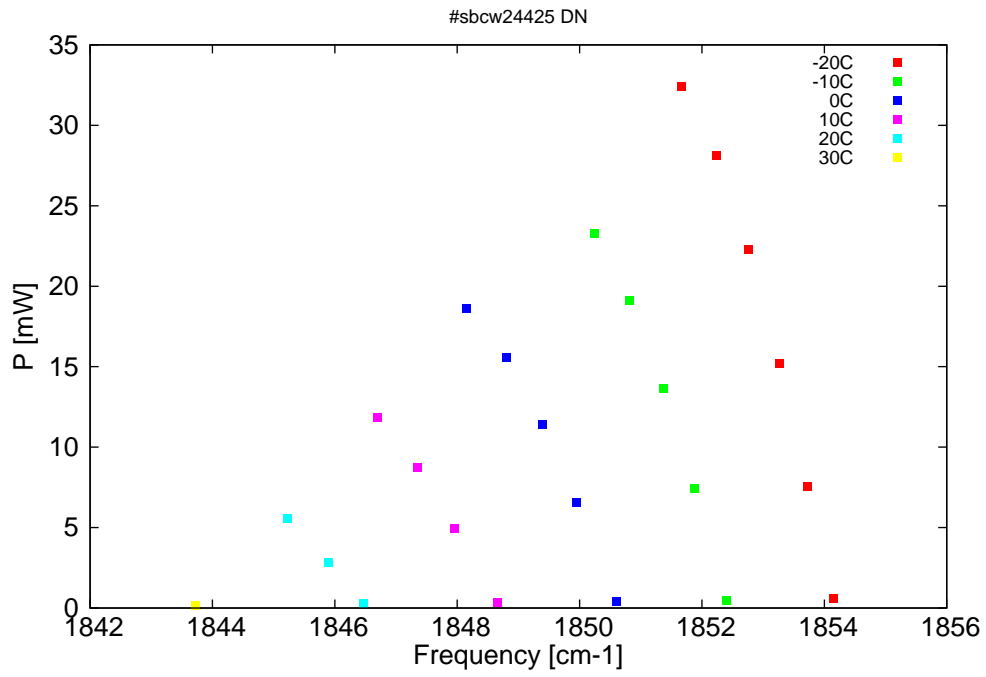


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

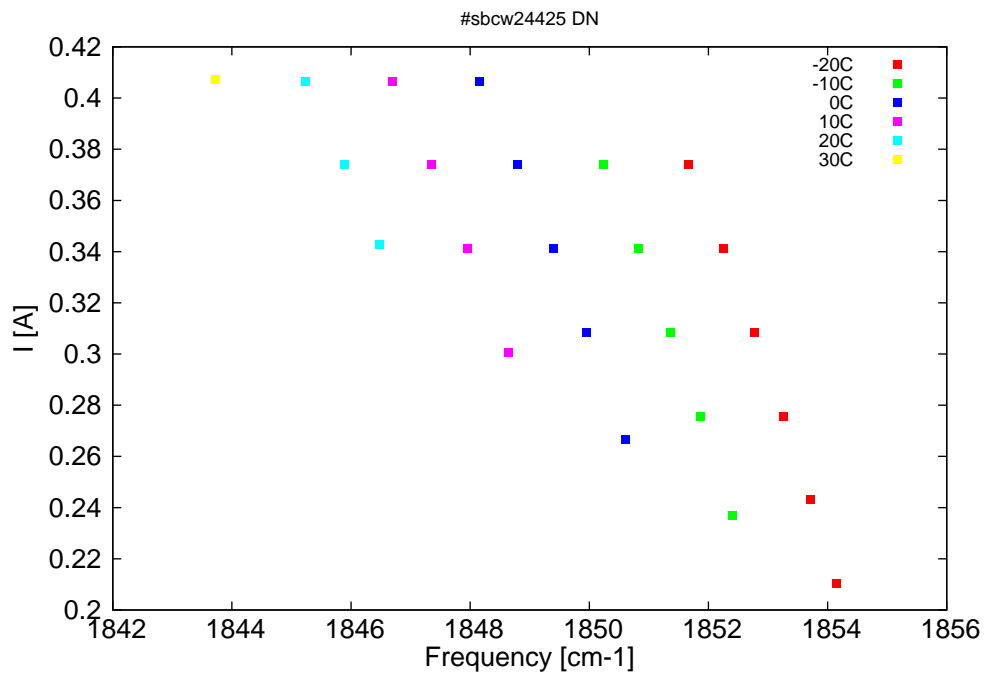


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
5393.3	1854.2	0.6	-20	8.77	0.21
5394.6	1853.7	7.5	-20	8.99	0.243
5395.9	1853.3	15.2	-20	9.21	0.276
5397.3	1852.8	22.3	-20	9.43	0.308
5398.9	1852.2	28.1	-20	9.66	0.341
5400.5	1851.7	32.4	-20	9.89	0.374
5398.4	1852.4	0.5	-10	8.88	0.237
5399.9	1851.9	7.5	-10	9.13	0.276
5401.4	1851.4	13.7	-10	9.36	0.308
5403	1850.8	19.1	-10	9.58	0.341
5404.7	1850.2	23.3	-10	9.82	0.374
5403.6	1850.6	0.4	0	9.01	0.267
5405.5	1850	6.6	0	9.29	0.308
5407.2	1849.4	11.4	0	9.51	0.341
5408.9	1848.8	15.6	0	9.74	0.374
5410.8	1848.2	18.6	0	9.98	0.407
5409.4	1848.7	0.3	10	9.18	0.301
5411.4	1848	5	10	9.45	0.341
5413.2	1847.4	8.7	10	9.67	0.374
5415.1	1846.7	11.8	10	9.91	0.407
5415.7	1846.5	0.3	20	9.41	0.343
5417.4	1845.9	2.8	20	9.62	0.374
5419.4	1845.2	5.5	20	9.84	0.407
5423.8	1843.7	0.2	30	9.81	0.407

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

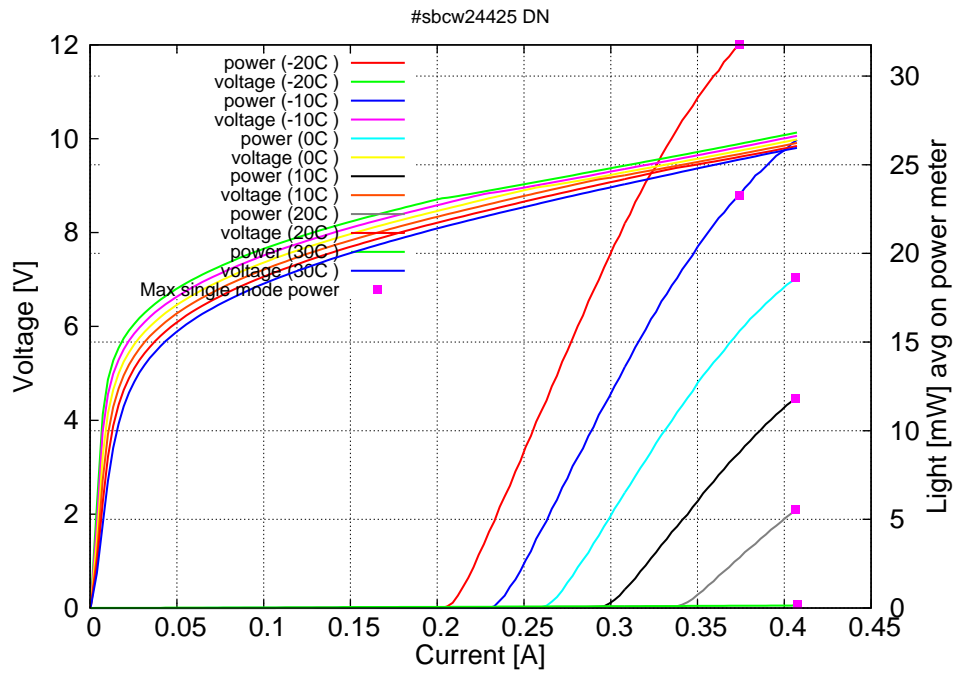


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.20A$  /  $V_{th}=8.7V$  (2-wires measurements). Maximum operation current: 0.375A between -20C and -10C, 0.41A between 0C and 30C.

Figure 3: spectra at different temperatures for various DC currents

