

## Datasheet for #sbcw10403 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 use with an ILX Lightwave LDX-3232 laser driver, or equivalent.



Figure 1: Support mounting for #sbcw10403 DN (please note that AlN submount numbering is A03Z3)

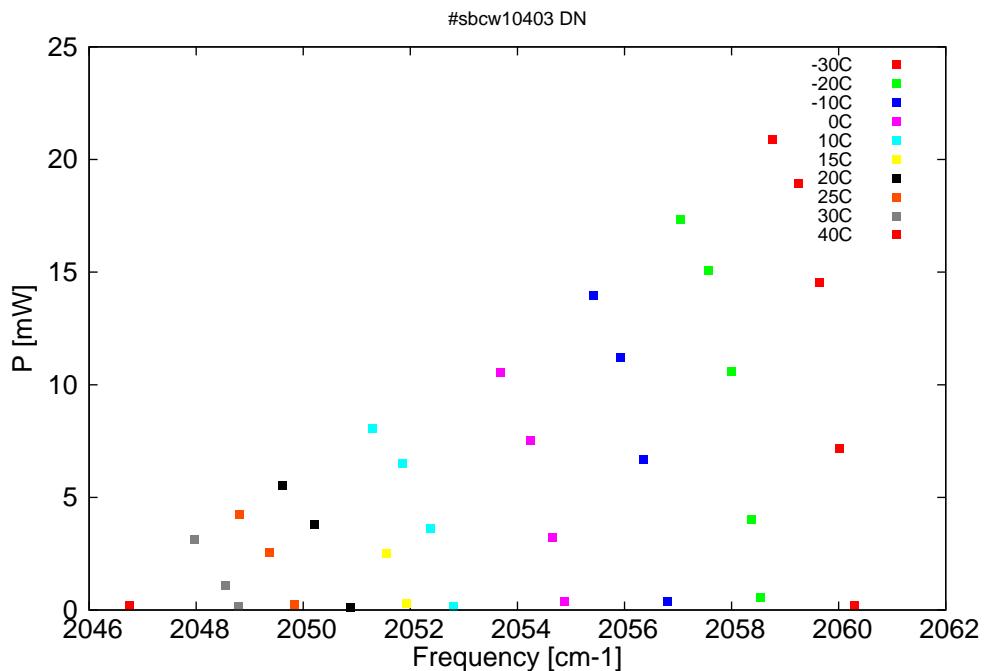


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

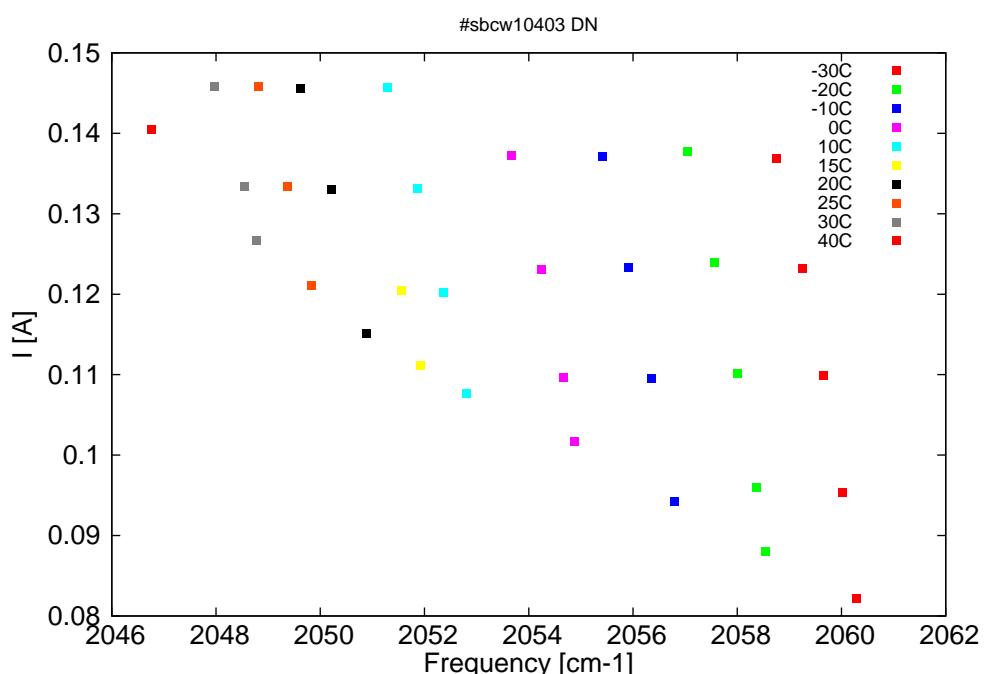


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm $^{-1}$ ]	P[mW]	Temp[°C]	U $_{LASER}$ [V]	I[A]
4853.7	2060.3	0.2	-30	8.5	0.08
4854.3	2060	7.2	-30	8.6	0.1
4855.2	2059.6	14.5	-30	8.8	0.11
4856.1	2059.2	18.9	-30	9	0.12
4857.3	2058.8	20.9	-30	9.3	0.14
4857.8	2058.5	0.5	-20	8.5	0.09
4858.2	2058.4	4	-20	8.6	0.1
4859.1	2058	10.6	-20	8.8	0.11
4860.1	2057.6	15.1	-20	9	0.12
4861.3	2057.1	17.3	-20	9.3	0.14
4861.9	2056.8	0.4	-10	8.6	0.09
4863	2056.3	6.7	-10	8.8	0.11
4864	2055.9	11.2	-10	9	0.12
4865.2	2055.4	14	-10	9.2	0.14
4866.5	2054.9	0.4	0	8.6	0.1
4867	2054.7	3.2	0	8.8	0.11
4868	2054.2	7.5	0	9	0.12
4869.3	2053.7	10.6	0	9.2	0.14
4871.4	2052.8	0.2	10	8.7	0.11
4872.4	2052.4	3.6	10	8.9	0.12
4873.6	2051.9	6.5	10	9.2	0.13
4875	2051.3	8	10	9.4	0.15
4873.5	2051.9	0.3	15	8.8	0.11
4874.3	2051.6	2.5	15	8.9	0.12
4876	2050.9	0.1	20	8.9	0.12
4877.5	2050.2	3.8	20	9.1	0.13
4879	2049.6	5.5	20	9.4	0.15
4878.4	2049.8	0.3	25	8.9	0.12
4879.5	2049.4	2.5	25	9.1	0.13
4880.9	2048.8	4.2	25	9.4	0.15
4880.9	2048.8	0.1	30	9	0.13
4881.5	2048.5	1.1	30	9.1	0.13
4882.9	2048	3.1	30	9.3	0.15
4885.8	2046.8	0.2	40	9.2	0.14

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

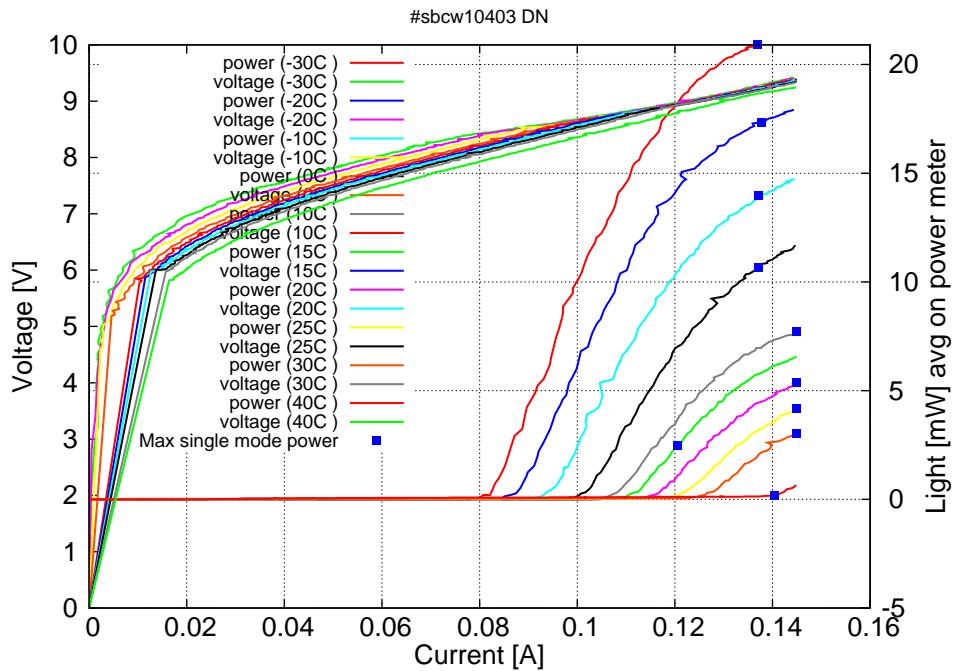


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -30C:  $I_{th}=0.08A$  /  $V_{th}=8.4V$  (2-wires measurements). Maximum operation current: 0.135A between -30C and 0C, 0.145A between 10C and 50C.

Figure 3: spectra at different temperatures for various DC currents

