

**Datasheet for #sbcw24952 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 #sbcw24952 DN (please note that AlN submount numbering is A121X)

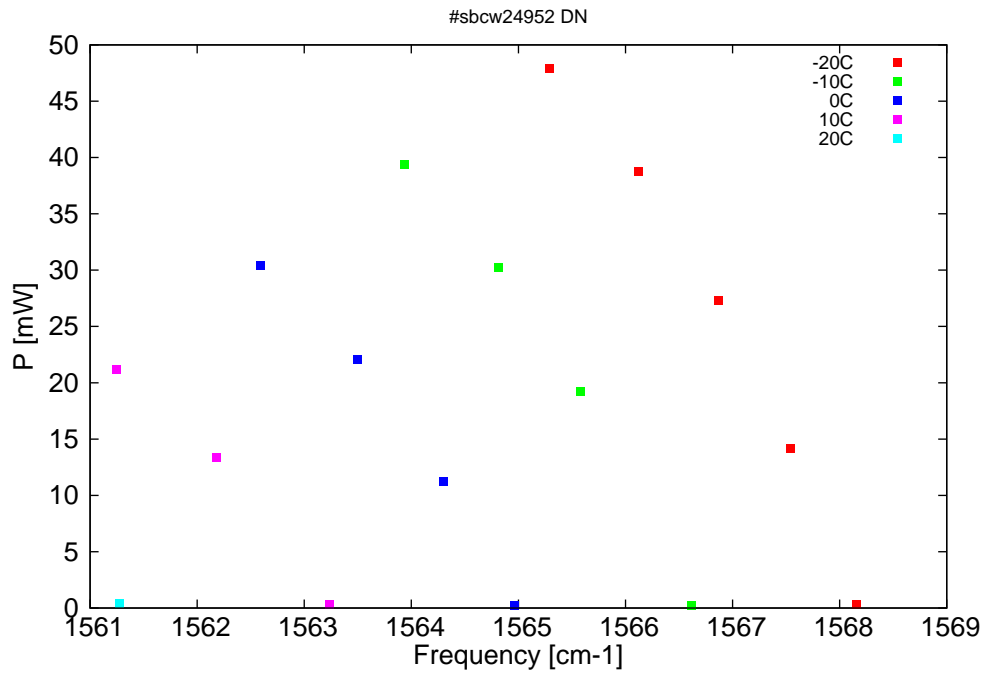


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

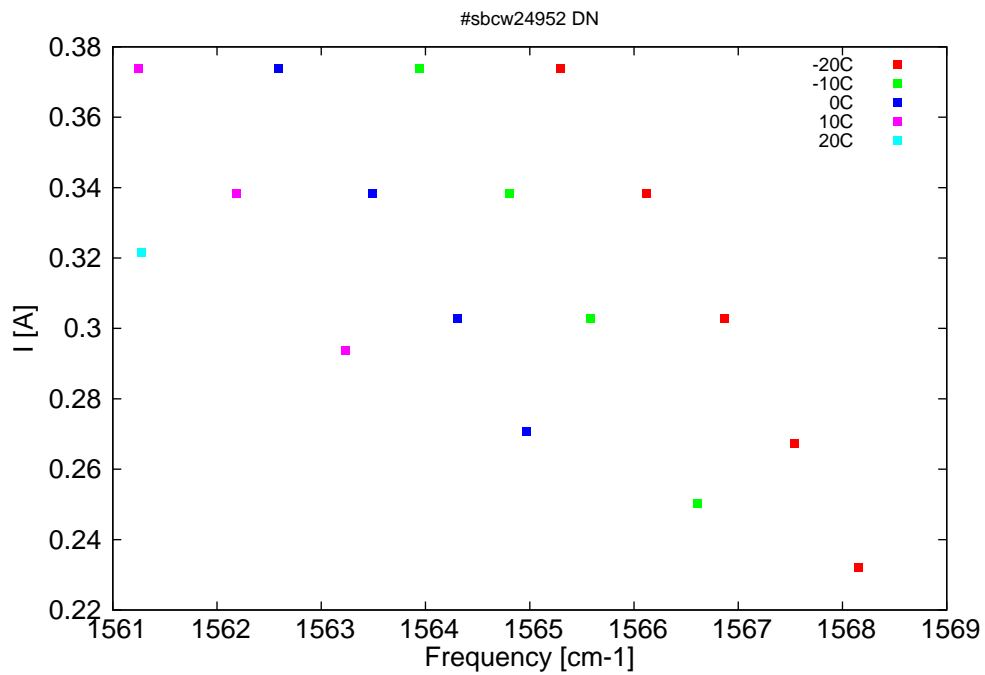


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
6376.9	1568.2	0.3	-20	9.3	0.232
6379.4	1567.5	14.2	-20	9.57	0.267
6382.2	1566.9	27.3	-20	9.85	0.303
6385.2	1566.1	38.7	-20	10.13	0.338
6388.6	1565.3	47.9	-20	10.43	0.374
6383.2	1566.6	0.3	-10	9.37	0.25
6387.4	1565.6	19.2	-10	9.78	0.303
6390.6	1564.8	30.2	-10	10.08	0.338
6394.1	1563.9	39.3	-10	10.38	0.374
6389.9	1565	0.3	0	9.46	0.271
6392.6	1564.3	11.2	0	9.72	0.303
6395.9	1563.5	22	0	10.02	0.338
6399.6	1562.6	30.4	0	10.33	0.374
6397	1563.2	0.3	10	9.58	0.294
6401.3	1562.2	13.4	10	9.96	0.338
6405.1	1561.3	21.1	10	10.28	0.374
6405	1561.3	0.4	20	9.75	0.322

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

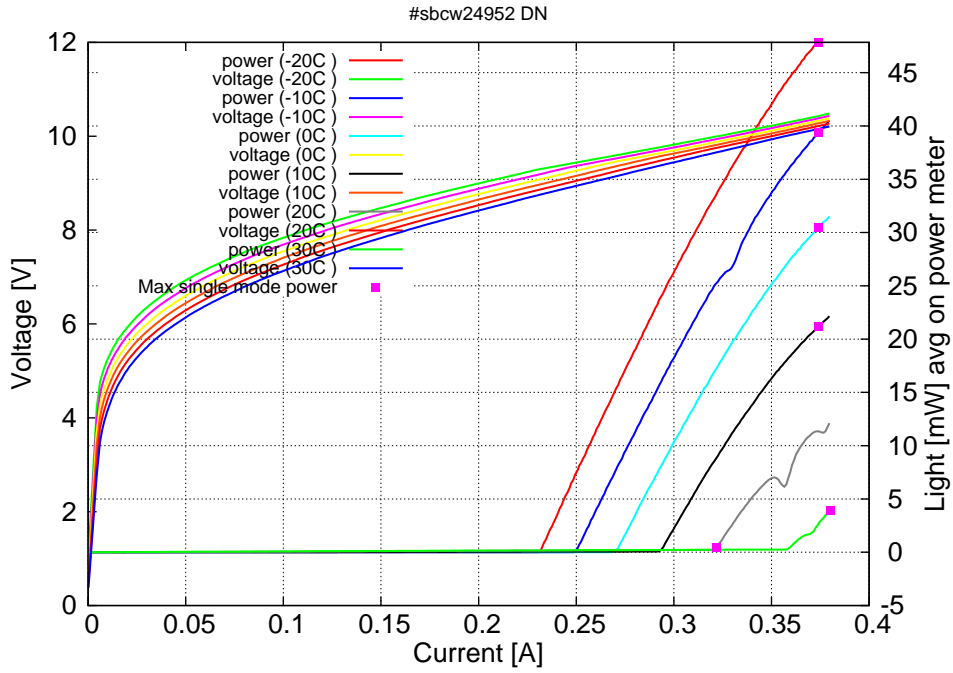


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.23A$  /  $V_{th}=9.3V$  (2-wires measurements). Maximum operation current: 0.380A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

