

**Datasheet for #sbcw24915 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 current on the laser contact (= bonding pad, corresponding to the label "laser" on the LLH) and the positive current on the base contact (= submount, corresponding to the label "base" on the LLH). 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 #sbcw24915 DN

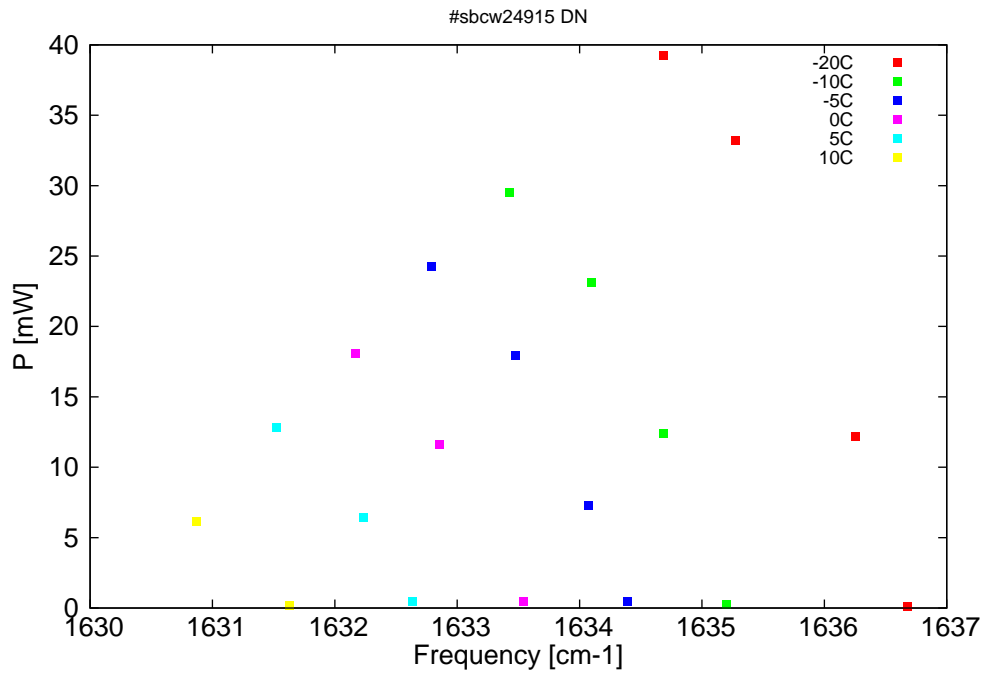


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

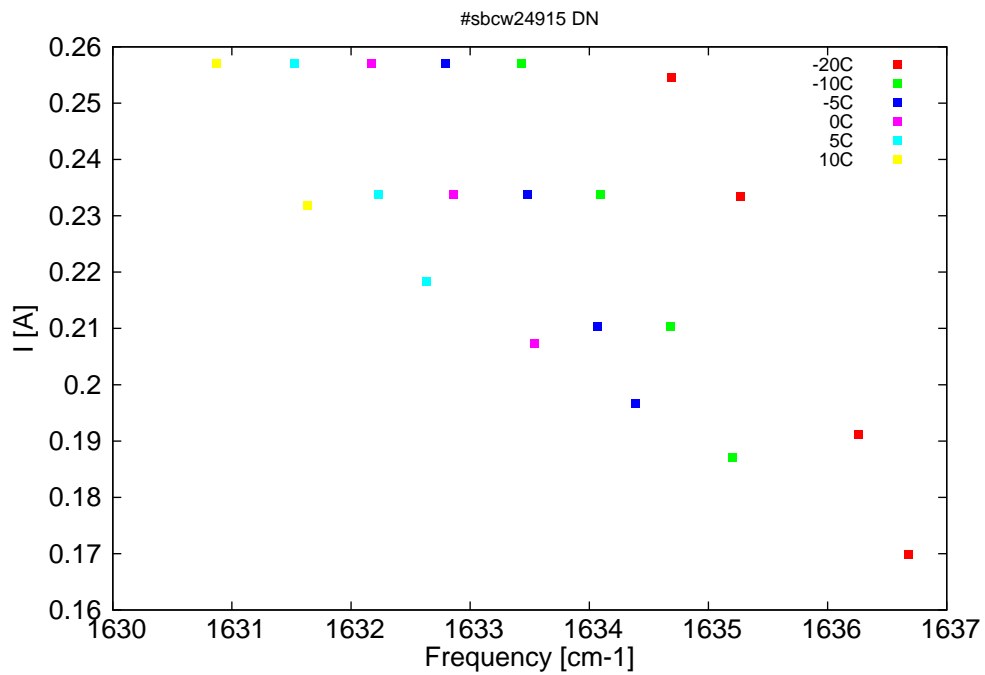


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
6109.9	1636.7	0.1	-20	9.99	0.17
6111.5	1636.3	12.2	-20	10.25	0.191
6115.2	1635.3	33.2	-20	10.79	0.233
6117.4	1634.7	39.2	-20	11.09	0.255
6115.4	1635.2	0.3	-10	10.16	0.187
6117.4	1634.7	12.4	-10	10.46	0.21
6119.6	1634.1	23.1	-10	10.77	0.234
6122.1	1633.4	29.5	-10	11.12	0.257
6118.5	1634.4	0.4	-5	10.26	0.197
6119.7	1634.1	7.3	-5	10.44	0.21
6121.9	1633.5	18	-5	10.75	0.234
6124.5	1632.8	24.2	-5	11.1	0.257
6121.7	1633.5	0.5	0	10.38	0.207
6124.2	1632.9	11.6	0	10.73	0.234
6126.8	1632.2	18.1	0	11.08	0.257
6125.1	1632.6	0.5	5	10.51	0.218
6126.6	1632.2	6.4	5	10.71	0.234
6129.2	1631.5	12.8	5	11.06	0.257
6128.8	1631.6	0.2	10	10.67	0.232
6131.7	1630.9	6.2	10	11.04	0.257

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

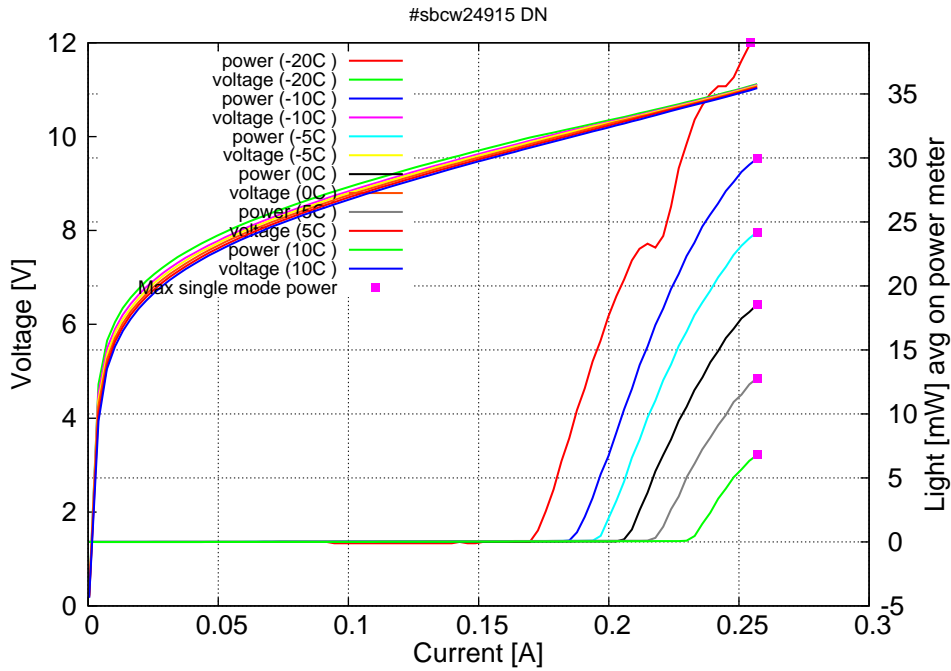


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.17A$  /  $V_{th}=10.0V$  (2-wires measurements). Maximum operation current: 0.257A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

