

**Datasheet for #sbcw23035 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 #sbcw23035 DN (please note that AlN submount numbering is A0NWX)

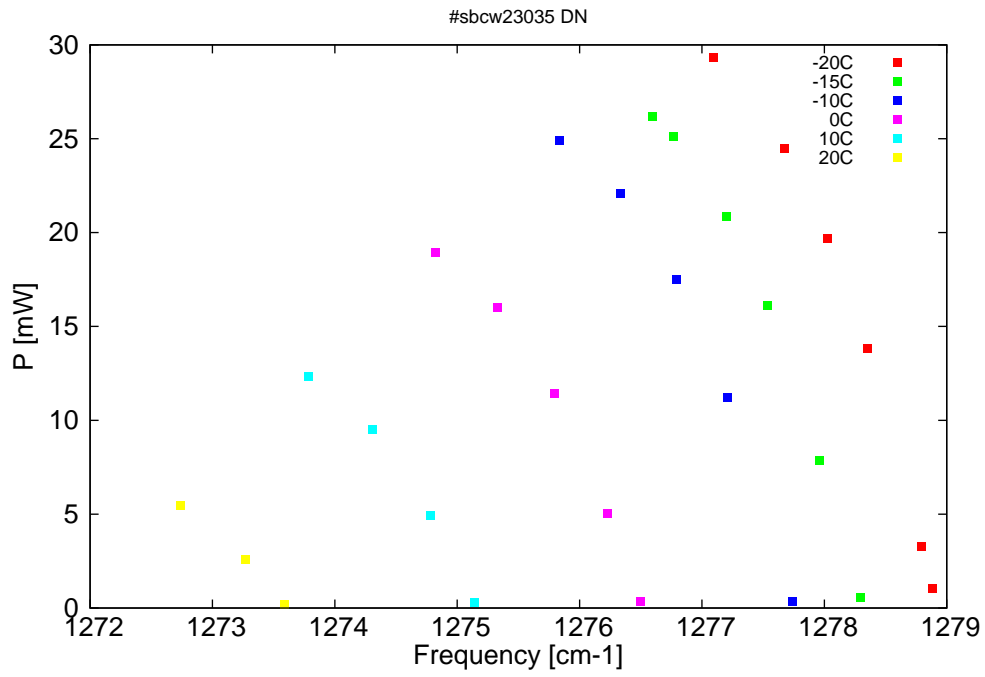


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

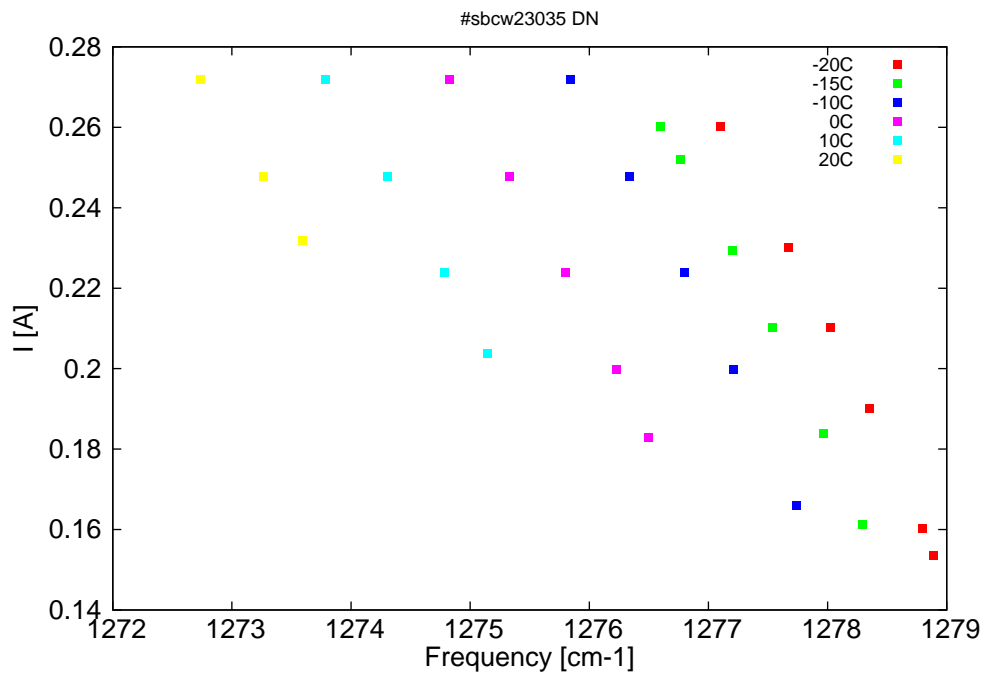


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
7819.3	1278.9	1	-20	9.33	0.154
7819.8	1278.8	3.3	-20	9.4	0.16
7822.6	1278.4	13.8	-20	9.74	0.19
7824.6	1278	19.7	-20	9.96	0.21
7826.7	1277.7	24.5	-20	10.17	0.23
7830.3	1277.1	29.3	-20	10.5	0.26
7822.9	1278.3	0.6	-15	9.33	0.161
7825	1278	7.8	-15	9.58	0.184
7827.6	1277.5	16.1	-15	9.87	0.21
7829.6	1277.2	20.9	-15	10.07	0.229
7832.3	1276.8	25.1	-15	10.31	0.252
7833.3	1276.6	26.2	-15	10.4	0.26
7826.3	1277.7	0.3	-10	9.3	0.166
7829.6	1277.2	11.2	-10	9.67	0.2
7832.1	1276.8	17.5	-10	9.93	0.224
7834.9	1276.3	22.1	-10	10.18	0.248
7838	1275.8	24.9	-10	10.43	0.272
7833.9	1276.5	0.3	0	9.32	0.183
7835.6	1276.2	5	0	9.5	0.2
7838.2	1275.8	11.4	0	9.75	0.224
7841.1	1275.3	16	0	10.01	0.248
7844.2	1274.8	19	0	10.26	0.272
7842.3	1275.1	0.3	10	9.38	0.204
7844.5	1274.8	4.9	10	9.59	0.224
7847.4	1274.3	9.5	10	9.84	0.248
7850.6	1273.8	12.3	10	10.09	0.272
7851.8	1273.6	0.2	20	9.52	0.232
7853.8	1273.3	2.6	20	9.68	0.248
7857.1	1272.7	5.4	20	9.93	0.272

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

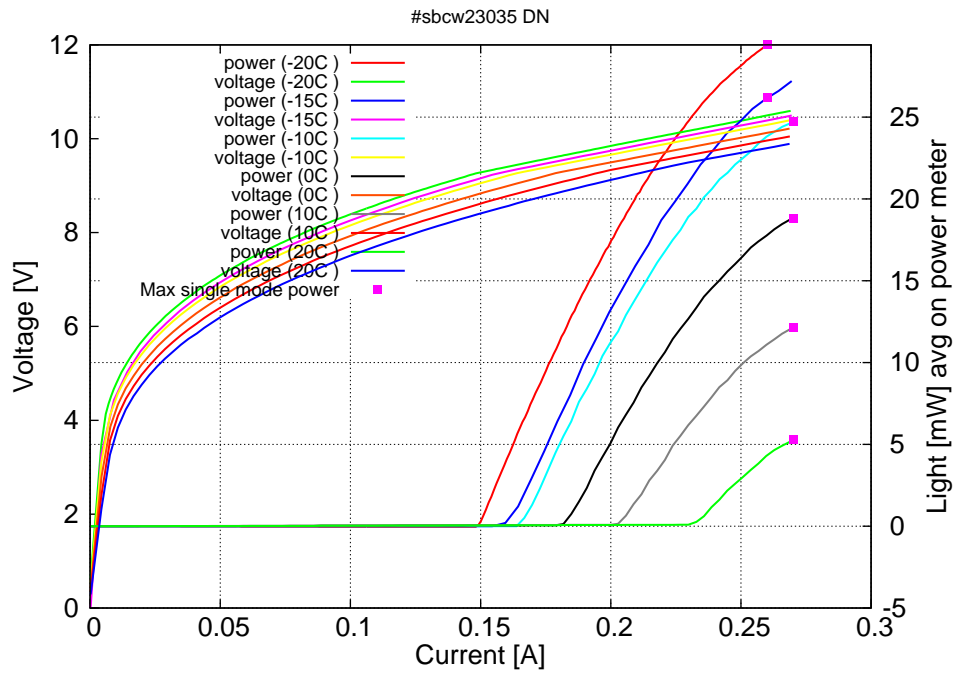


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.15A$  /  $V_{th}=9.3V$  (2-wires measurements). Maximum operation current: 0.26A between -20C and -15C, 0.27A between -10C and 20C.

Figure 3: spectra at different temperatures for various DC currents

