

**Datasheet for #sbcw20217 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 #sbcw20217 DN

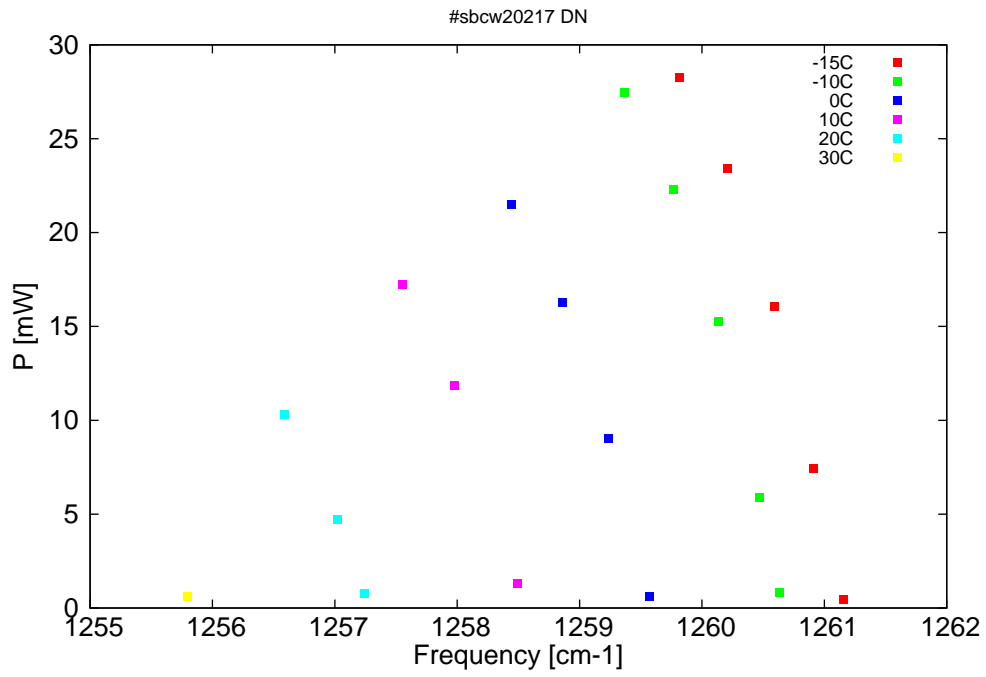


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

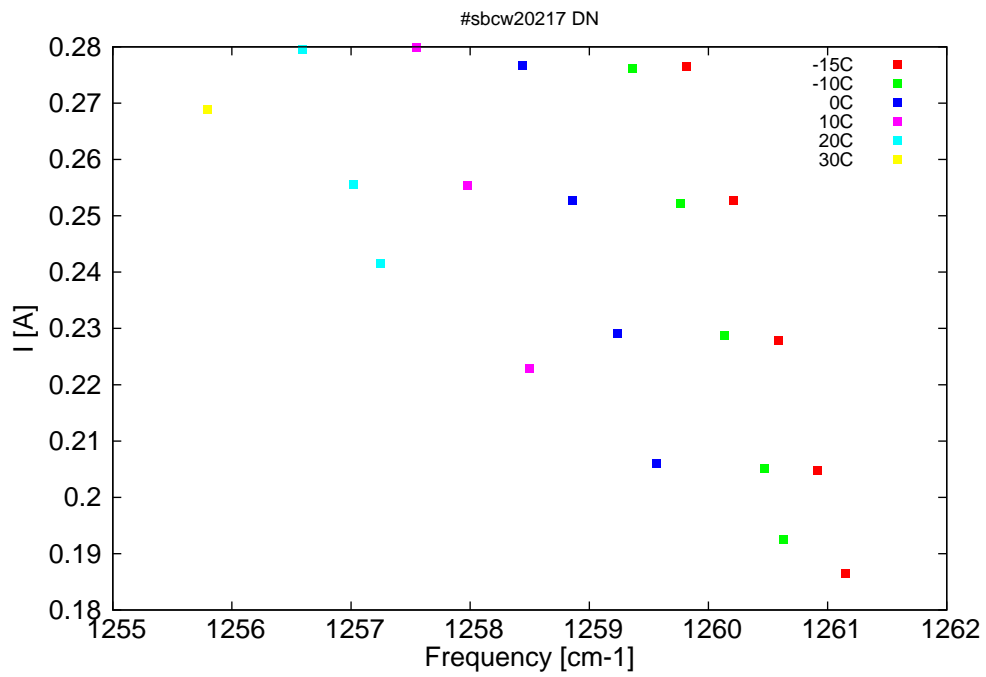


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
7929.3	1261.2	0.5	-15	9.21	0.187
7930.8	1260.9	7.4	-15	9.39	0.205
7932.8	1260.6	16.1	-15	9.62	0.228
7935.2	1260.2	23.4	-15	9.88	0.253
7937.7	1259.8	28.2	-15	10.12	0.276
7932.5	1260.6	0.8	-10	9.21	0.192
7933.5	1260.5	5.9	-10	9.33	0.205
7935.7	1260.1	15.2	-10	9.57	0.229
7938	1259.8	22.3	-10	9.81	0.252
7940.5	1259.4	27.5	-10	10.06	0.276
7939.2	1259.6	0.6	0	9.23	0.206
7941.3	1259.2	9	0	9.46	0.229
7943.7	1258.9	16.3	0	9.7	0.253
7946.3	1258.4	21.5	0	9.94	0.277
7946	1258.5	1.3	10	9.29	0.223
7949.3	1258	11.8	10	9.62	0.255
7952	1257.5	17.3	10	9.86	0.28
7953.9	1257.2	0.8	20	9.38	0.242
7955.3	1257	4.7	20	9.51	0.255
7958.1	1256.6	10.3	20	9.76	0.28
7963.1	1255.8	0.6	30	9.56	0.269

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

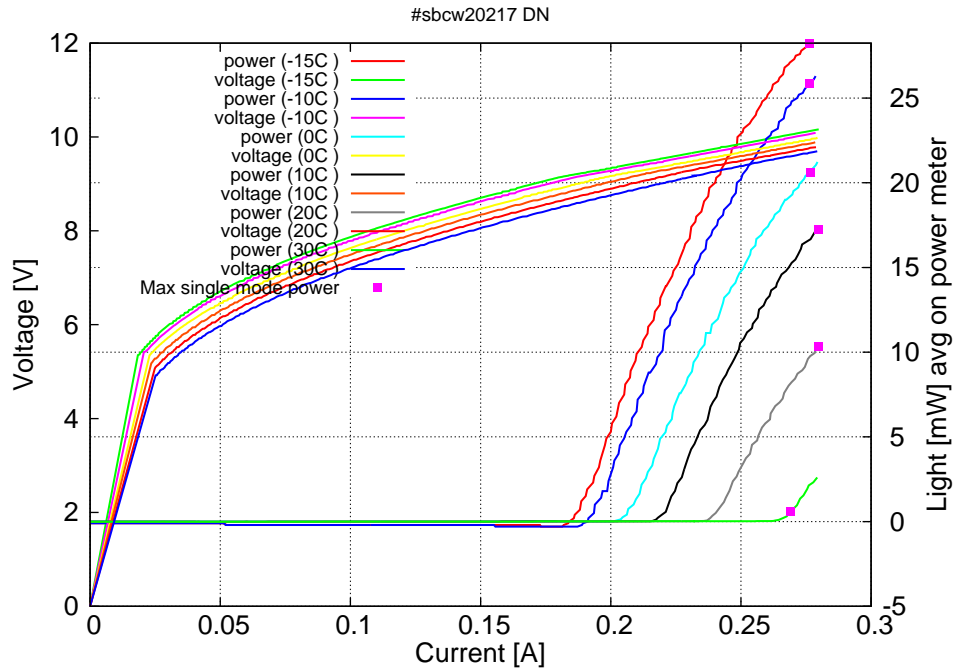


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -15C:  $I_{th}=0.18A$  /  $V_{th}=9.2V$  (2-wires measurements). Maximum operation

current: 0.28A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

