

**Datasheet for #sbcw25017 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 #sbcw25017 DN (please note that AlN submount numbering is A0Z2K)

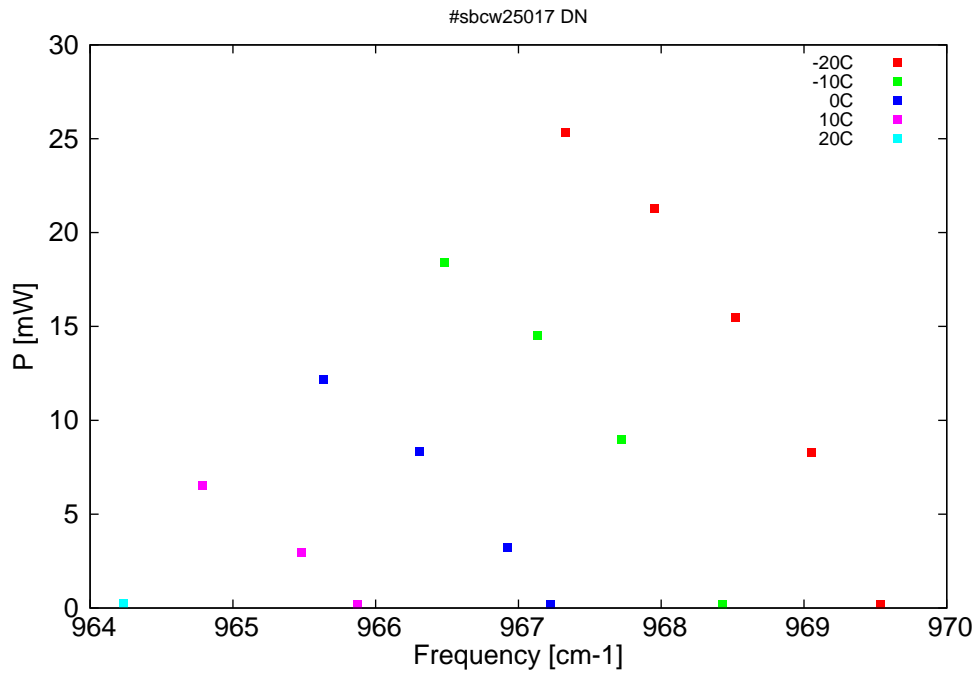


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

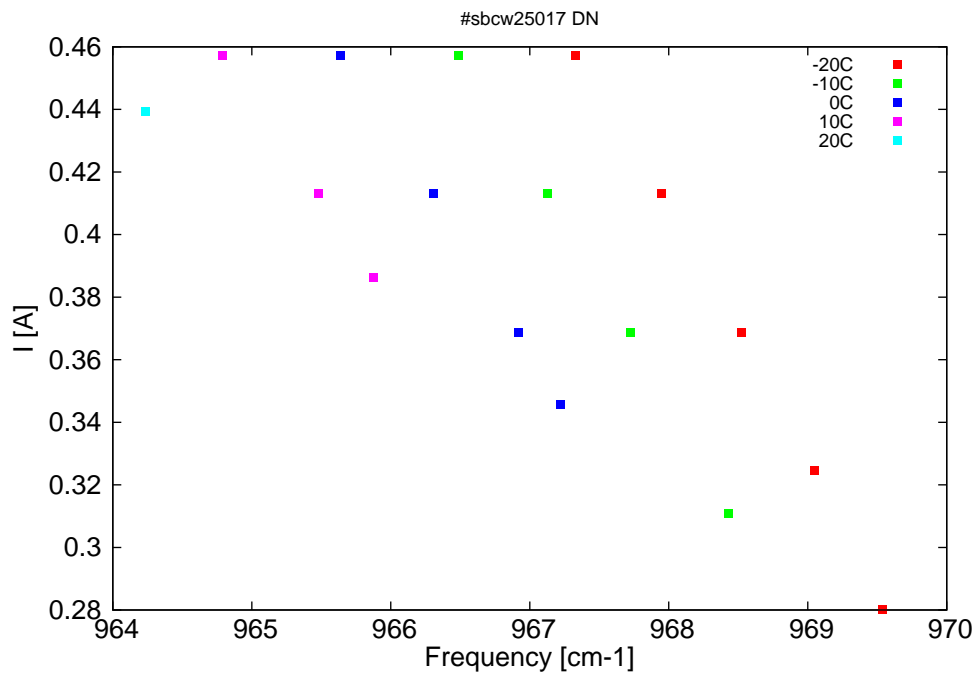


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
10314.2	969.5	0.2	-20	9.27	0.28
10319.4	969.1	8.3	-20	9.63	0.325
10325	968.5	15.5	-20	9.99	0.369
10331.1	968	21.3	-20	10.34	0.413
10337.8	967.3	25.4	-20	10.7	0.457
10326	968.4	0.2	-10	9.43	0.311
10333.5	967.7	9	-10	9.9	0.369
10339.9	967.1	14.5	-10	10.26	0.413
10346.8	966.5	18.4	-10	10.62	0.457
10338.9	967.2	0.2	0	9.61	0.346
10342.1	966.9	3.2	0	9.8	0.369
10348.7	966.3	8.4	0	10.16	0.413
10355.9	965.6	12.1	0	10.52	0.457
10353.3	965.9	0.2	10	9.88	0.386
10357.5	965.5	2.9	10	10.1	0.413
10365	964.8	6.5	10	10.47	0.457
10370.9	964.2	0.3	20	10.24	0.439

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

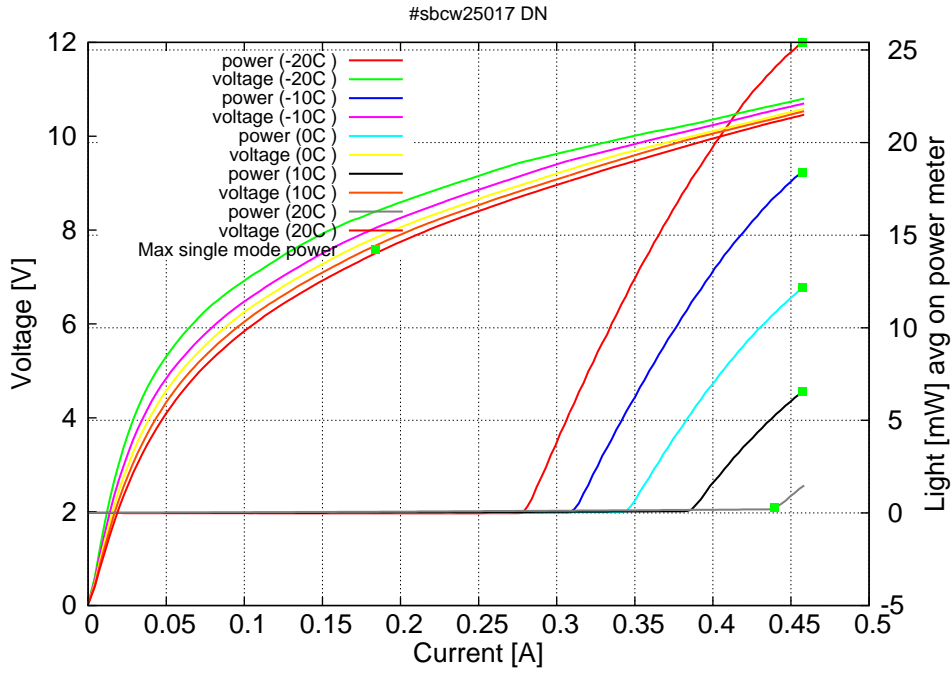


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.28A$  /  $V_{th}=9.3V$  (2-wires measurements). Maximum operation current: 0.460A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

