

## Datasheet for #sbcw23686 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 #sbcw23686 DN (please note that AlN submount numbering is A10ZD)

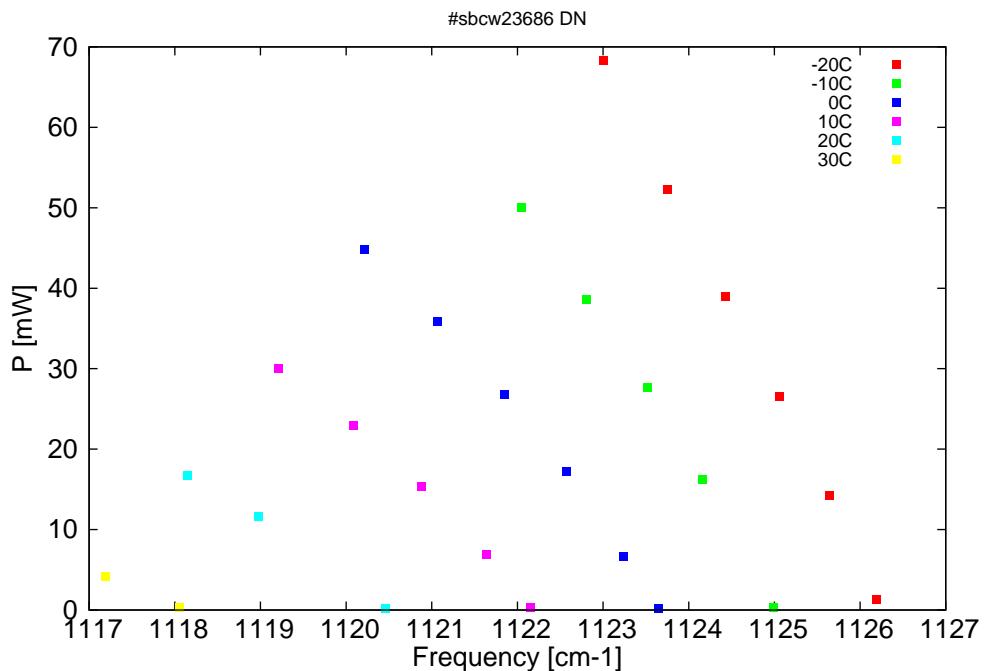


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

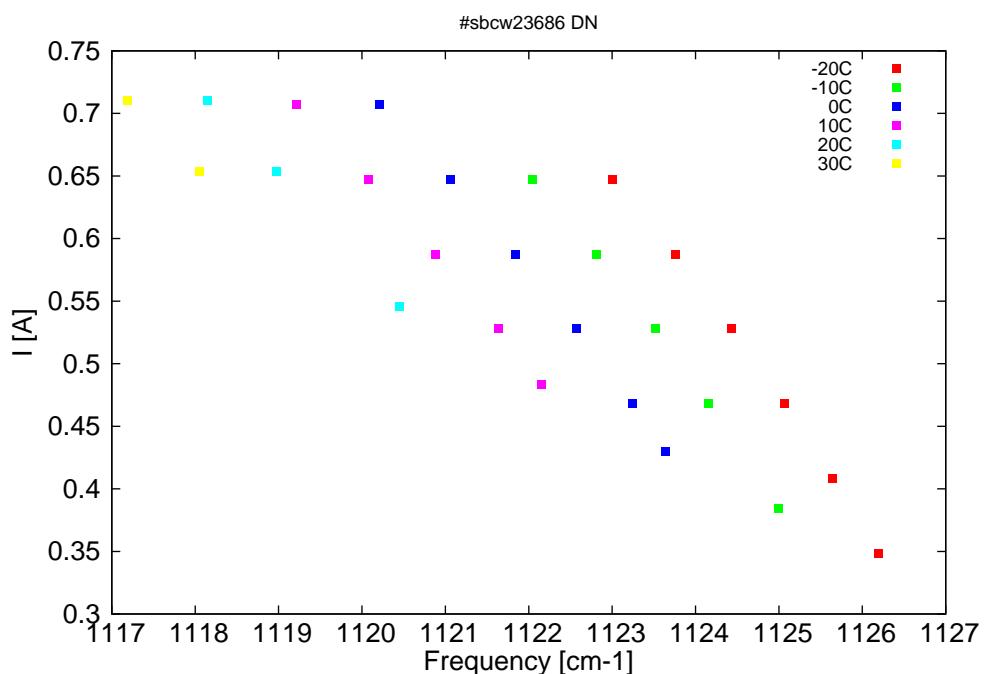


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm $^{-1}$ ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
8879.5	1126.2	1.4	-20	9.77	0.348
8883.8	1125.6	14.2	-20	10.15	0.408
8888.4	1125.1	26.6	-20	10.51	0.468
8893.4	1124.4	39	-20	10.84	0.528
8898.7	1123.8	52.3	-20	11.17	0.588
8904.7	1123	68.3	-20	11.48	0.647
8888.9	1125	0.3	-10	9.88	0.384
8895.5	1124.2	16.2	-10	10.39	0.468
8900.6	1123.5	27.7	-10	10.74	0.528
8906.2	1122.8	38.6	-10	11.06	0.588
8912.3	1122	50	-10	11.38	0.647
8899.6	1123.6	0.2	0	10.05	0.43
8902.8	1123.2	6.7	0	10.28	0.468
8908.1	1122.6	17.2	0	10.63	0.528
8913.9	1121.8	26.8	0	10.96	0.588
8920.1	1121.1	35.9	0	11.28	0.647
8926.9	1120.2	44.9	0	11.6	0.707
8911.4	1122.2	0.3	10	10.26	0.483
8915.6	1121.6	6.9	10	10.52	0.528
8921.5	1120.9	15.3	10	10.86	0.588
8927.9	1120.1	22.9	10	11.19	0.647
8934.8	1119.2	30	10	11.5	0.707
8925	1120.5	0.2	20	10.54	0.545
8936.7	1119	11.6	20	11.14	0.654
8943.4	1118.1	16.7	20	11.44	0.71
8944.1	1118.1	0.3	30	11.01	0.654
8951.1	1117.2	4.2	30	11.31	0.71

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

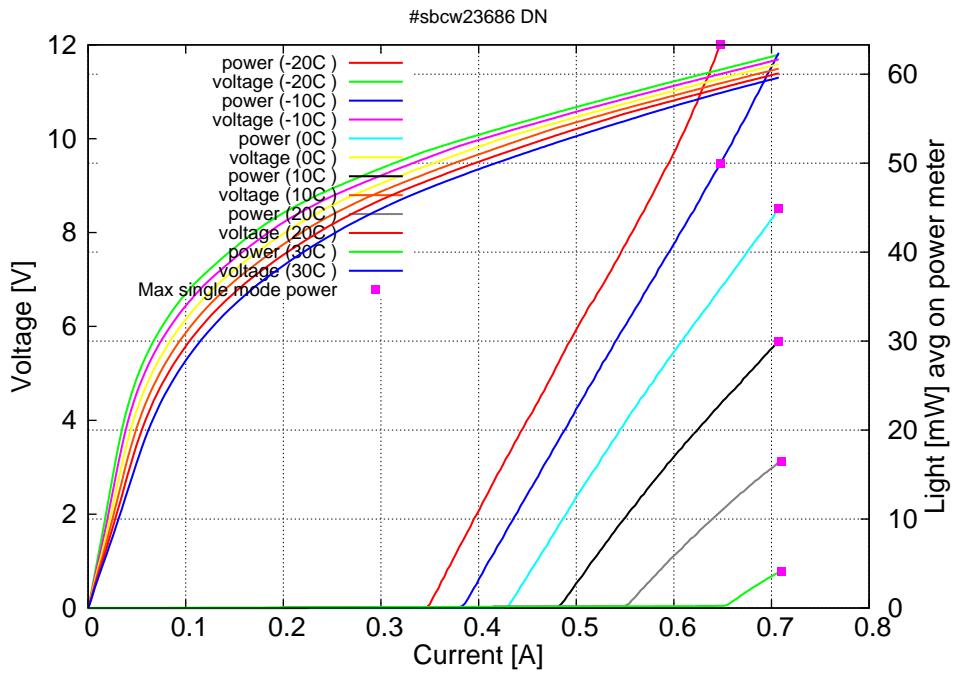


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.33A$  /  $V_{th}=9.7V$  (2-wires measurements). Maximum operation current: 0.65A between -20C and -10C, 0.71A between 0C and 30C.

Figure 3: spectra at different temperatures for various DC currents

