

Datasheet for #sbcw24684 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 #sbcw24684 DN

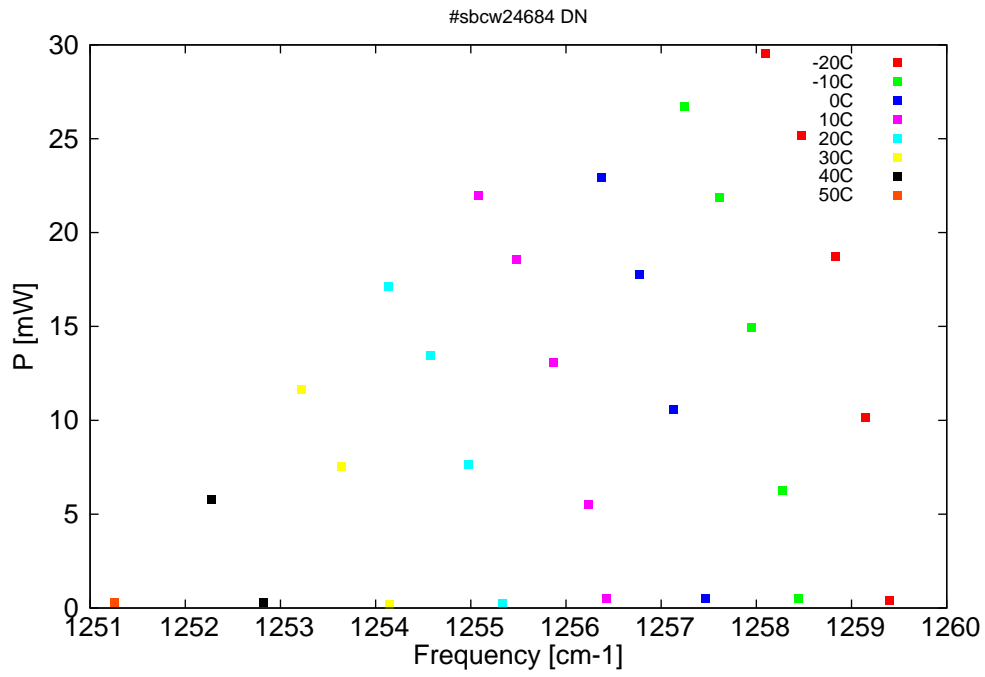


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

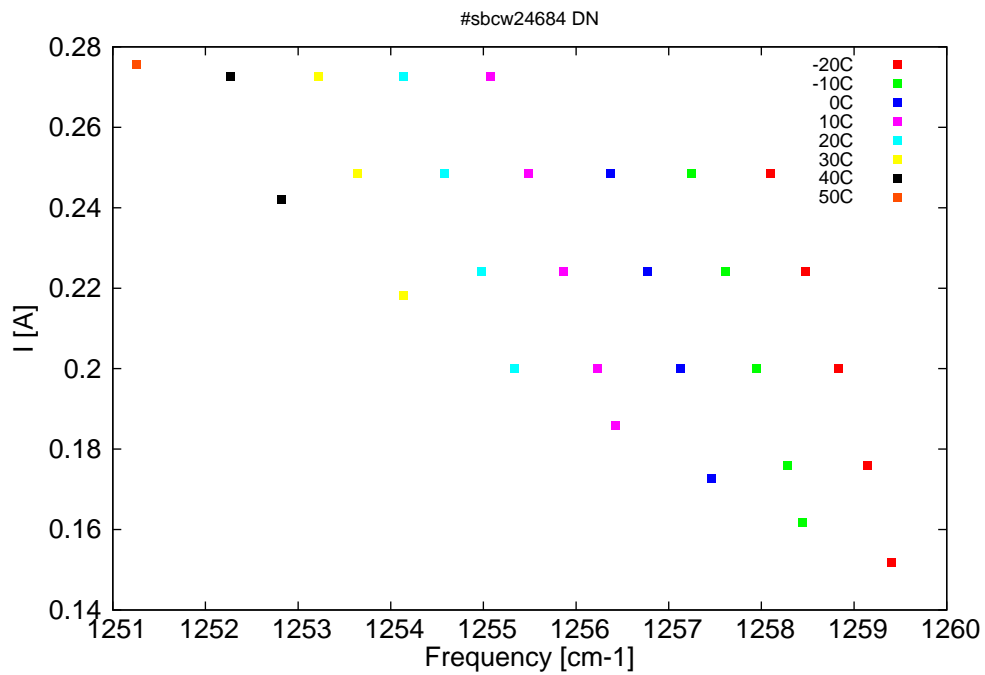


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
7940.3	1259.4	0.4	-20	8.83	0.152
7941.9	1259.1	10.2	-20	9.09	0.176
7943.9	1258.8	18.7	-20	9.35	0.2
7946.1	1258.5	25.2	-20	9.61	0.224
7948.5	1258.1	29.5	-20	9.87	0.248
7946.3	1258.4	0.5	-10	8.81	0.162
7947.4	1258.3	6.2	-10	8.96	0.176
7949.5	1257.9	15	-10	9.22	0.2
7951.5	1257.6	21.9	-10	9.47	0.224
7953.9	1257.2	26.7	-10	9.73	0.248
7952.5	1257.5	0.5	0	8.81	0.173
7954.7	1257.1	10.6	0	9.09	0.2
7956.9	1256.8	17.7	0	9.35	0.224
7959.4	1256.4	22.9	0	9.6	0.248
7959.1	1256.4	0.5	10	8.84	0.186
7960.3	1256.2	5.5	10	8.98	0.2
7962.6	1255.9	13.1	10	9.23	0.224
7965.1	1255.5	18.6	10	9.48	0.248
7967.6	1255.1	22	10	9.74	0.273
7966	1255.3	0.3	20	8.87	0.2
7968.3	1255	7.6	20	9.12	0.224
7970.8	1254.6	13.4	20	9.37	0.248
7973.6	1254.1	17.1	20	9.62	0.273
7973.6	1254.1	0.2	30	8.96	0.218
7976.7	1253.6	7.5	30	9.27	0.248
7979.4	1253.2	11.6	30	9.51	0.273
7982	1252.8	0.3	40	9.1	0.242
7985.5	1252.3	5.8	40	9.41	0.273
7992	1251.3	0.3	50	9.35	0.276

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

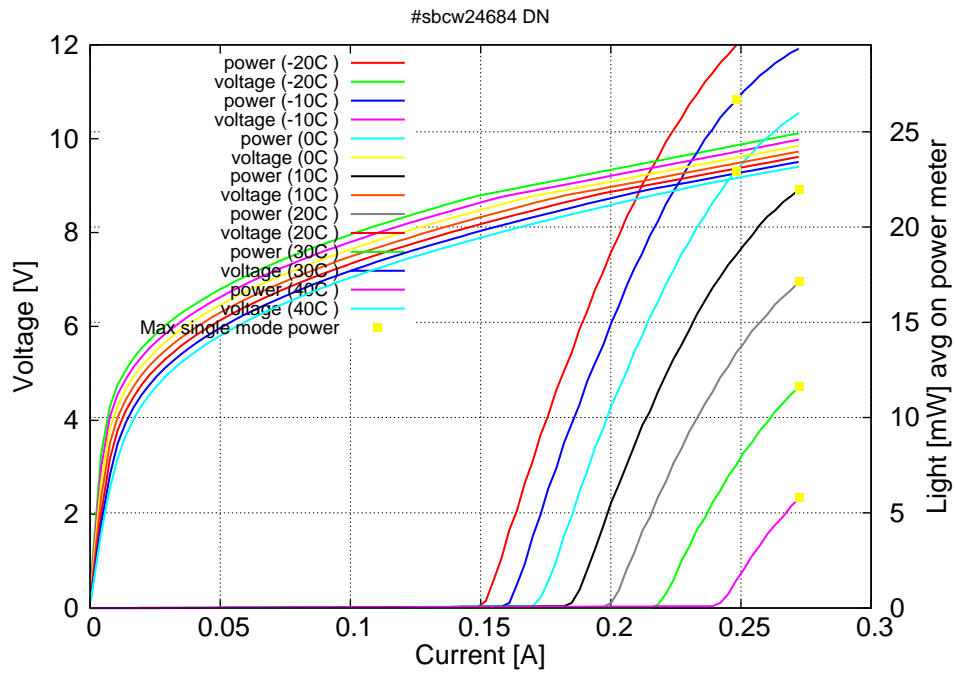


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.15A$ / $V_{th}=8.8V$ (2-wires measurements). Maximum operation current: 0.25A between -20C and 0C, 0.275A between 10C and 40C.

Figure 3: spectra at different temperatures for various DC currents

