

Datasheet for #sbcw23034 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 #sbcw23034 DN (please note that AlN submount numbering is A0NG5)

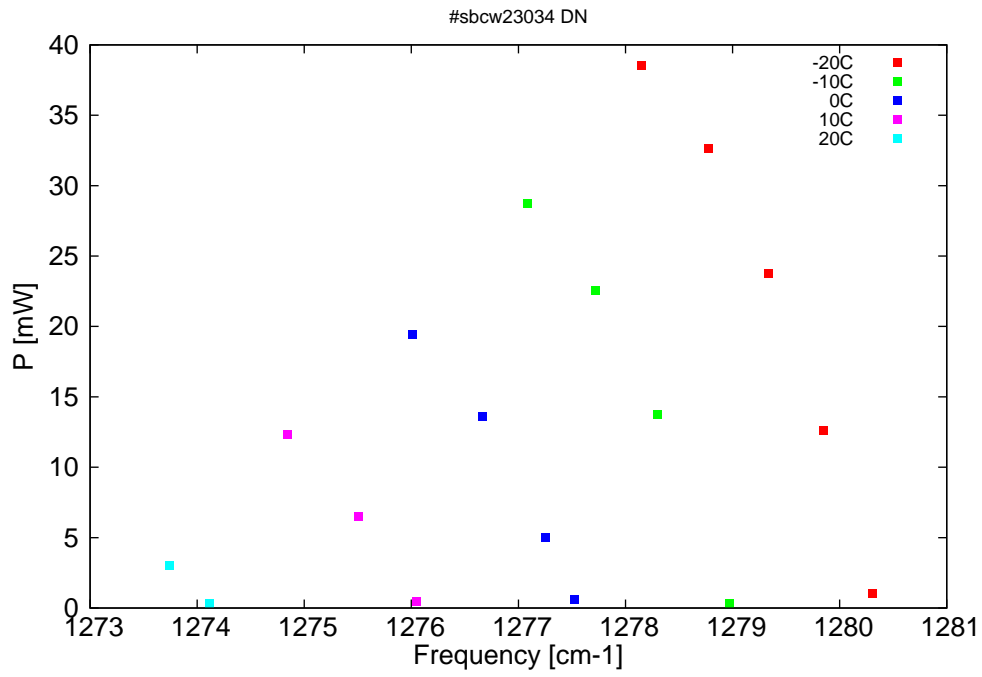


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

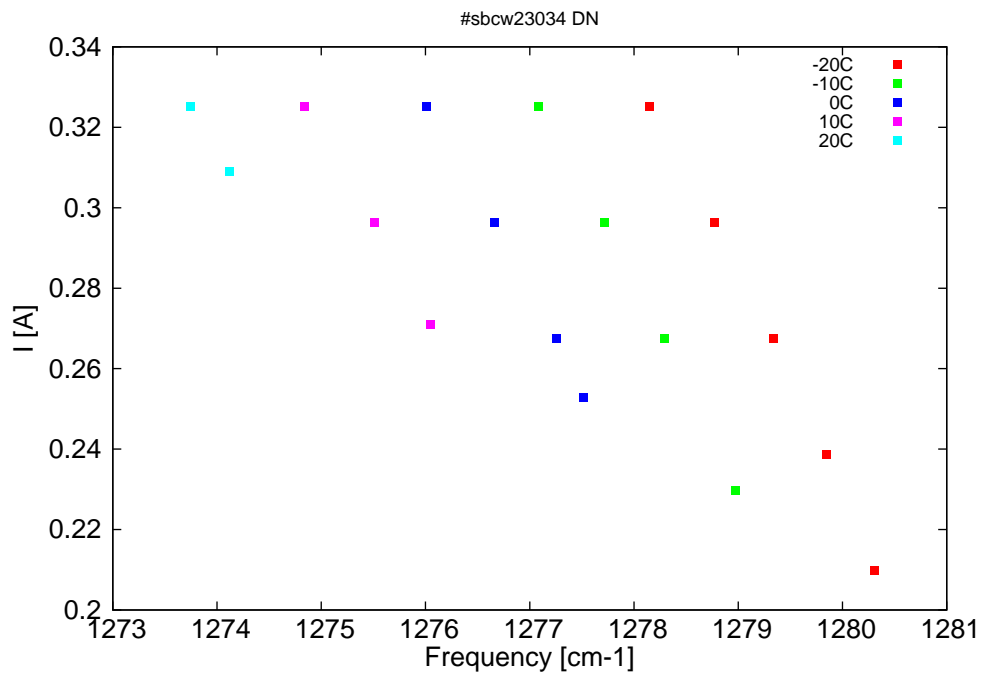


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
7810.6	1280.3	1	-20	9.72	0.21
7813.4	1279.8	12.6	-20	9.97	0.239
7816.6	1279.3	23.8	-20	10.21	0.268
7820	1278.8	32.6	-20	10.45	0.296
7823.8	1278.1	38.5	-20	10.69	0.325
7818.8	1279	0.3	-10	9.73	0.23
7822.9	1278.3	13.8	-10	10.04	0.268
7826.5	1277.7	22.6	-10	10.28	0.296
7830.3	1277.1	28.7	-10	10.52	0.325
7827.7	1277.5	0.6	0	9.76	0.253
7829.3	1277.3	5	0	9.89	0.268
7832.9	1276.7	13.6	0	10.12	0.296
7836.9	1276	19.4	0	10.36	0.325
7836.7	1276	0.4	10	9.73	0.271
7840	1275.5	6.5	10	9.93	0.296
7844.1	1274.8	12.3	10	10.16	0.325
7848.6	1274.1	0.4	20	9.89	0.309
7850.9	1273.7	3	20	10.02	0.325

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

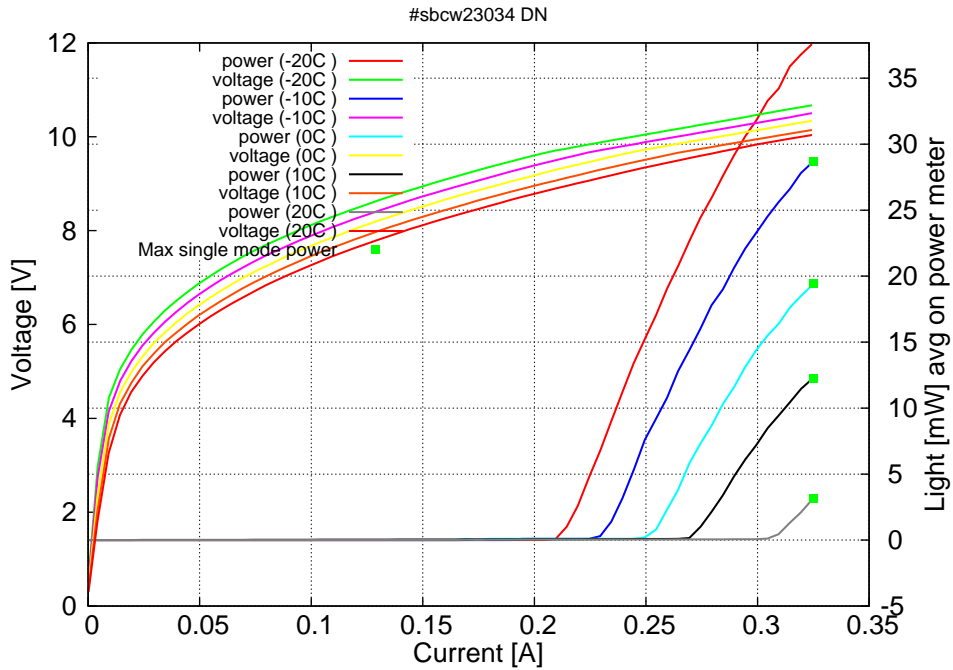


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.20A$ / $V_{th}=9.6V$ (2-wires measurements). Maximum operation current: 0.325A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

