

Datasheet for #sbcw23032 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 #sbcw23032 DN (please note that AlN submount numbering is A0XD5)

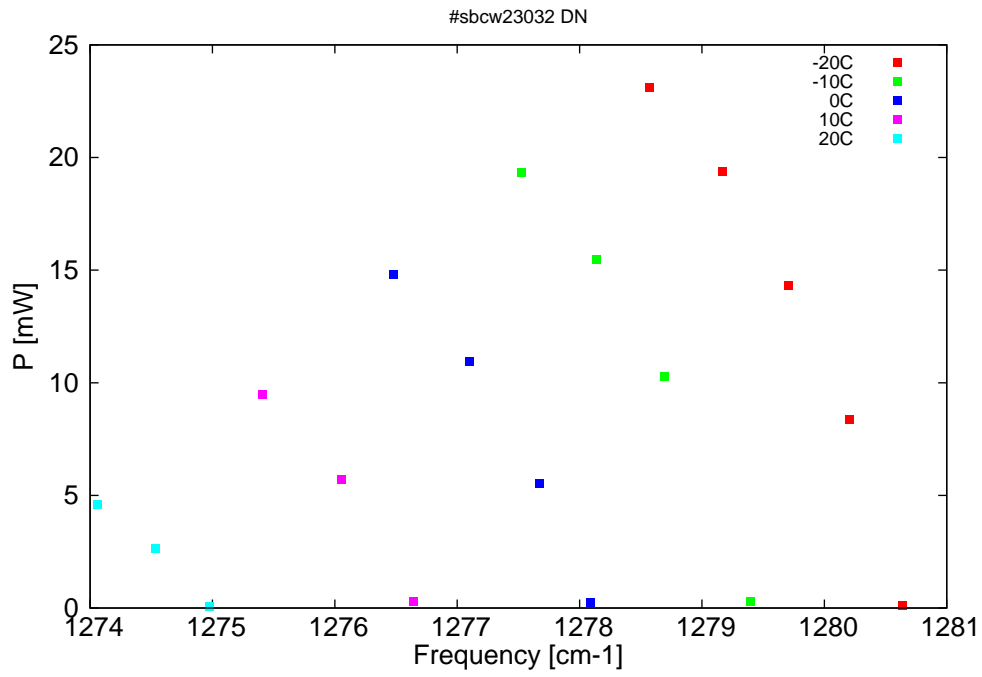


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

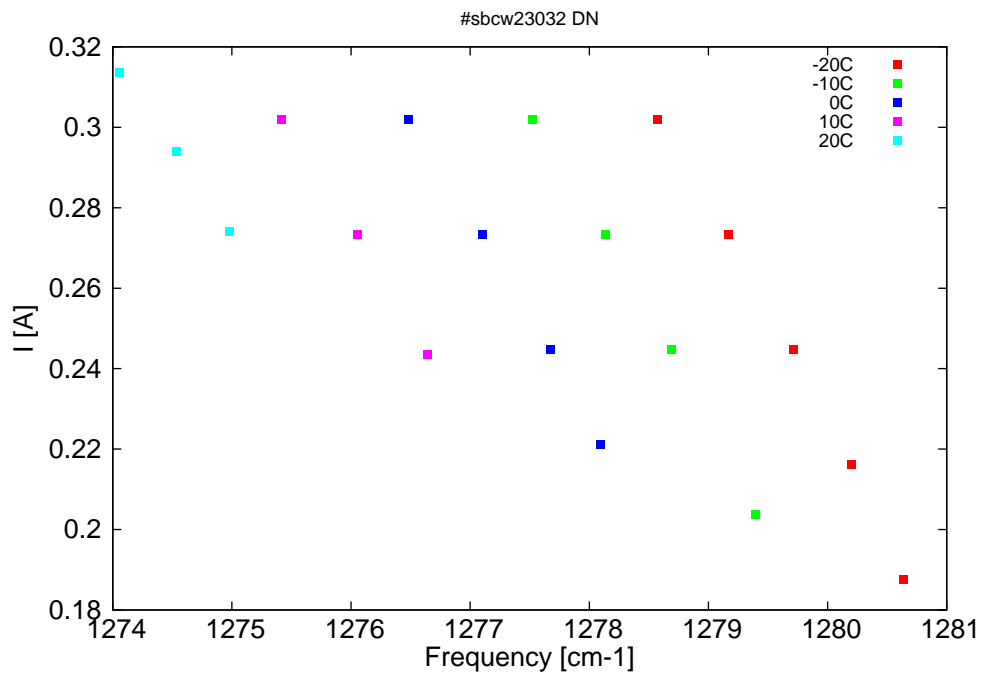


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
7808.6	1280.6	0.1	-20	9.4	0.188
7811.3	1280.2	8.4	-20	9.68	0.216
7814.3	1279.7	14.3	-20	9.96	0.245
7817.6	1279.2	19.4	-20	10.23	0.273
7821.2	1278.6	23.1	-20	10.51	0.302
7816.2	1279.4	0.3	-10	9.39	0.204
7820.5	1278.7	10.3	-10	9.79	0.245
7823.9	1278.1	15.5	-10	10.06	0.273
7827.6	1277.5	19.3	-10	10.34	0.302
7824.2	1278.1	0.2	0	9.42	0.221
7826.7	1277.7	5.5	0	9.65	0.245
7830.2	1277.1	10.9	0	9.92	0.273
7834	1276.5	14.8	0	10.19	0.302
7833.1	1276.6	0.3	10	9.51	0.244
7836.7	1276.1	5.7	10	9.79	0.273
7840.6	1275.4	9.5	10	10.06	0.302
7843.3	1275	0.1	20	9.68	0.274
7846	1274.5	2.6	20	9.87	0.294
7848.9	1274.1	4.6	20	10.06	0.314

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

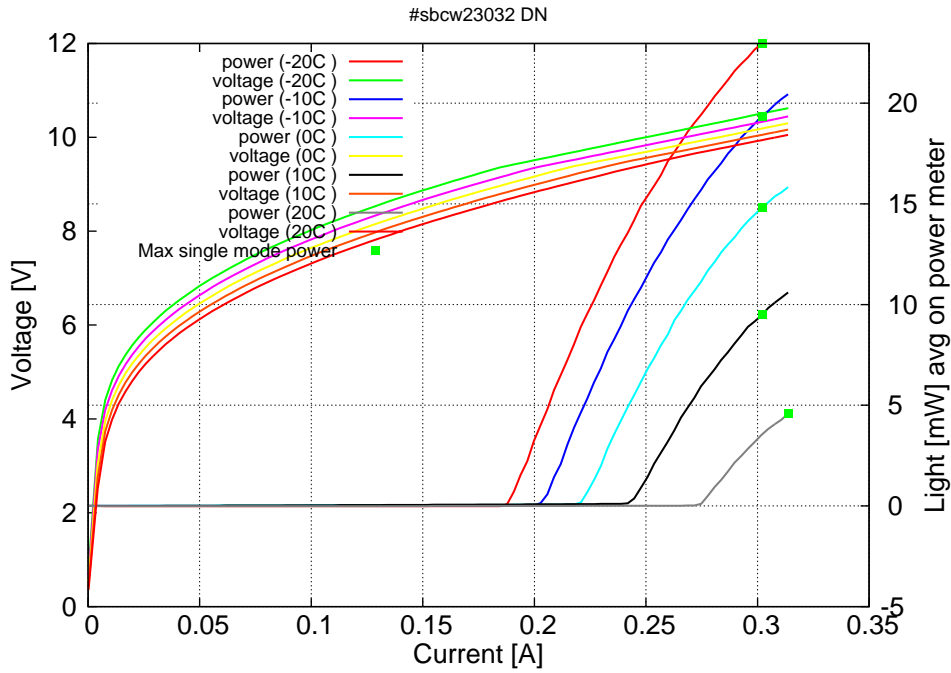


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.18A$ / $V_{th}=9.3V$ (2-wires measurements). Maximum operation current: 0.315A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

