

Datasheet for #sbcw23732 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 #sbcw23732 DN (please note that AlN submount numbering is A0Z5F)

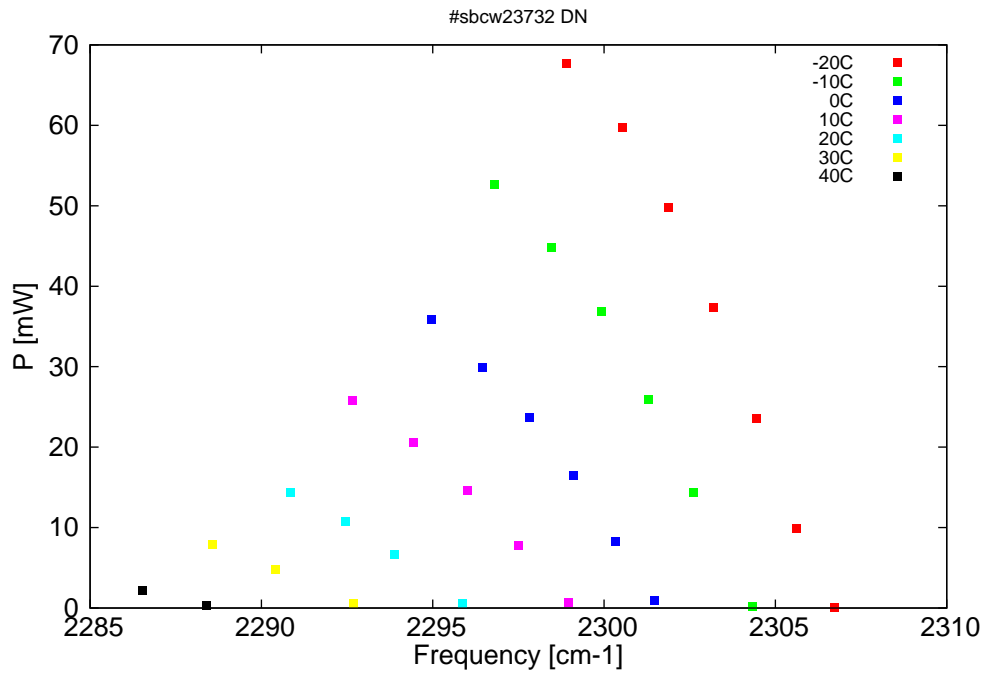


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

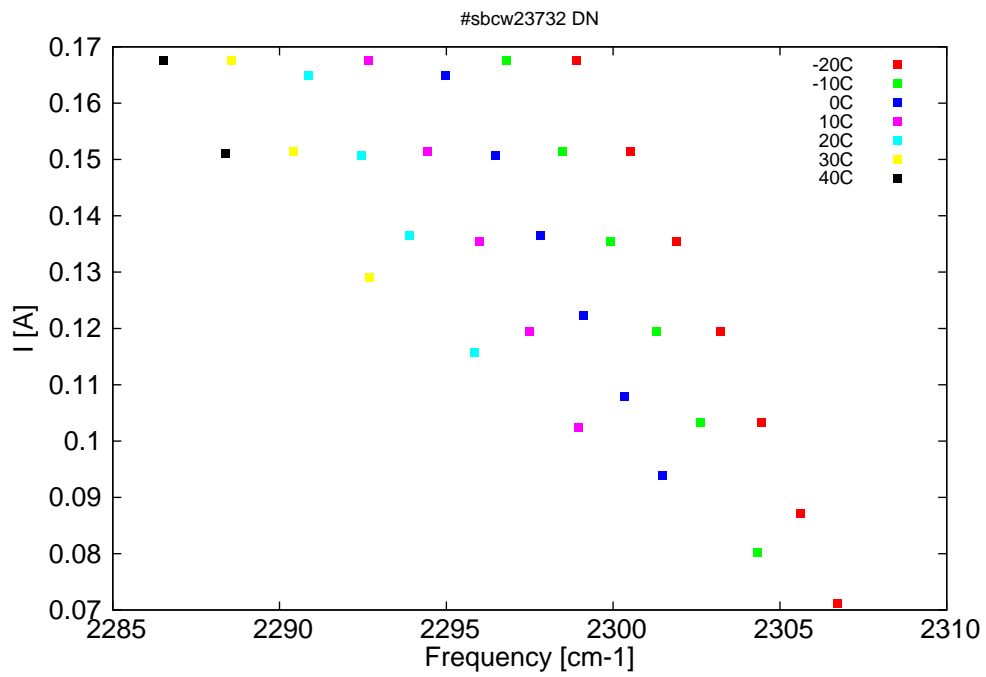


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4335.1	2306.7	0.1	-20	11.9	0.071
4337.2	2305.6	9.9	-20	12.18	0.087
4339.5	2304.4	23.5	-20	12.47	0.103
4341.8	2303.2	37.4	-20	12.74	0.119
4344.3	2301.9	49.8	-20	13.01	0.135
4346.8	2300.5	59.7	-20	13.28	0.152
4349.9	2298.9	67.7	-20	13.53	0.168
4339.7	2304.3	0.2	-10	11.97	0.08
4342.9	2302.6	14.4	-10	12.37	0.103
4345.4	2301.3	25.9	-10	12.64	0.119
4348	2299.9	36.9	-10	12.92	0.135
4350.7	2298.5	44.9	-10	13.18	0.152
4353.9	2296.8	52.7	-10	13.43	0.168
4345	2301.5	0.9	0	12.13	0.094
4347.2	2300.3	8.3	0	12.37	0.108
4349.5	2299.1	16.4	0	12.61	0.122
4352	2297.8	23.7	0	12.85	0.137
4354.5	2296.5	29.9	0	13.09	0.151
4357.4	2295	35.9	0	13.31	0.165
4349.8	2299	0.7	10	12.19	0.102
4352.6	2297.5	7.8	10	12.47	0.119
4355.4	2296	14.7	10	12.73	0.135
4358.4	2294.4	20.6	10	13	0.152
4361.7	2292.7	25.8	10	13.25	0.168
4355.7	2295.9	0.5	20	12.36	0.116
4359.4	2293.9	6.7	20	12.68	0.137
4362.1	2292.4	10.8	20	12.92	0.151
4365.2	2290.9	14.3	20	13.14	0.165
4361.7	2292.7	0.5	30	12.5	0.129
4366	2290.4	4.7	30	12.85	0.152
4369.5	2288.6	7.9	30	13.1	0.168
4369.9	2288.4	0.3	40	12.8	0.151
4373.5	2286.5	2.1	40	13.04	0.168

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

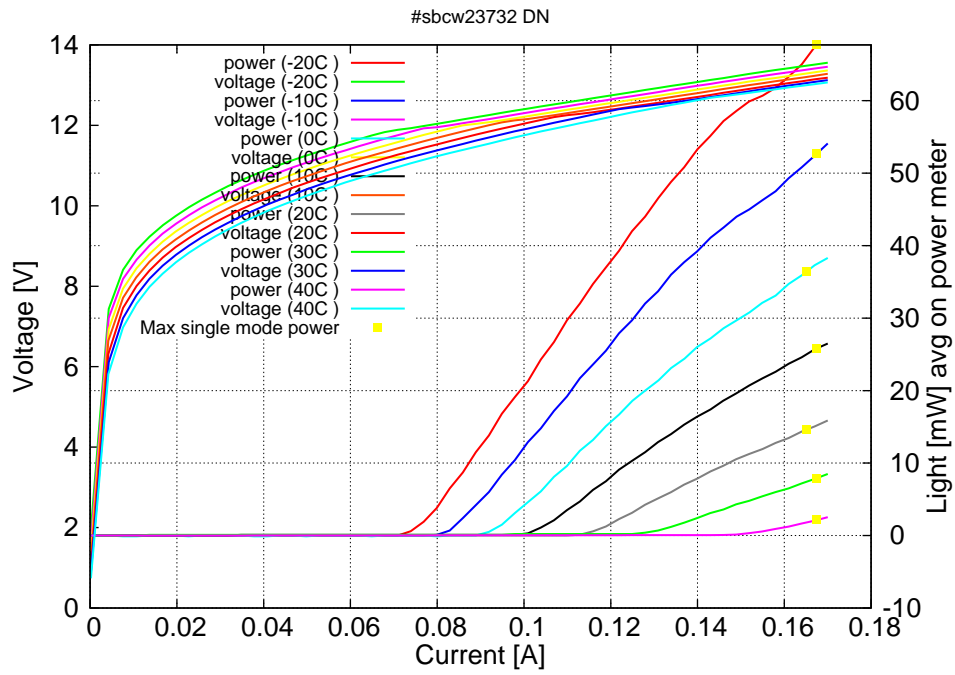


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.07A$ / $V_{th}=11.9V$ (2-wires measurements). Maximum operation current: 0.17A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

