

Datasheet for #sbcw23695 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 #sbcw23695 DN (please note that AlN submount numbering is A12VP)

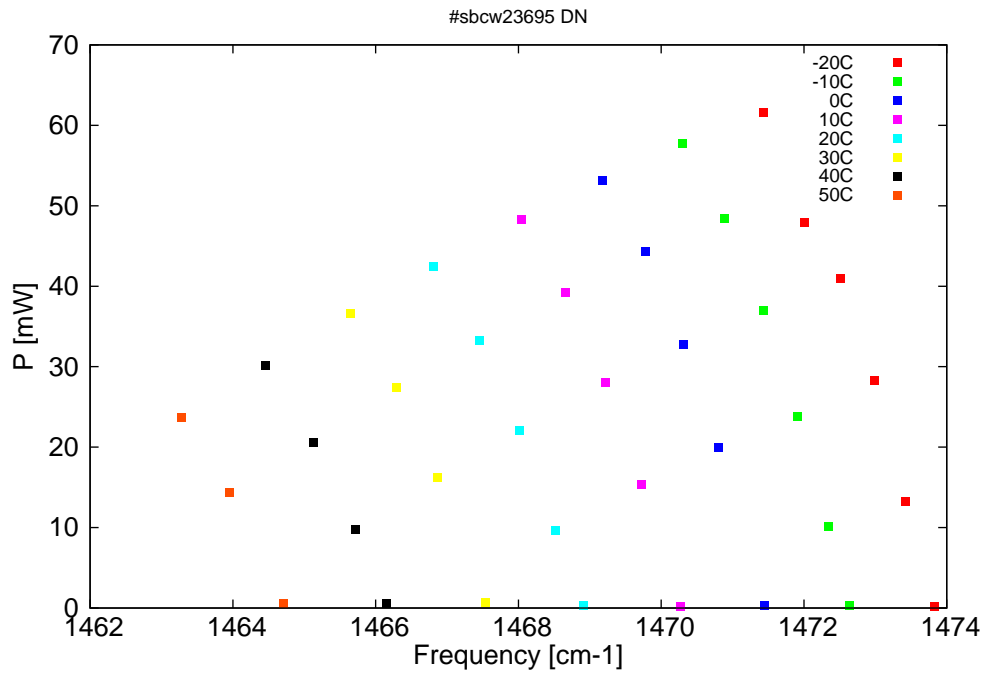


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

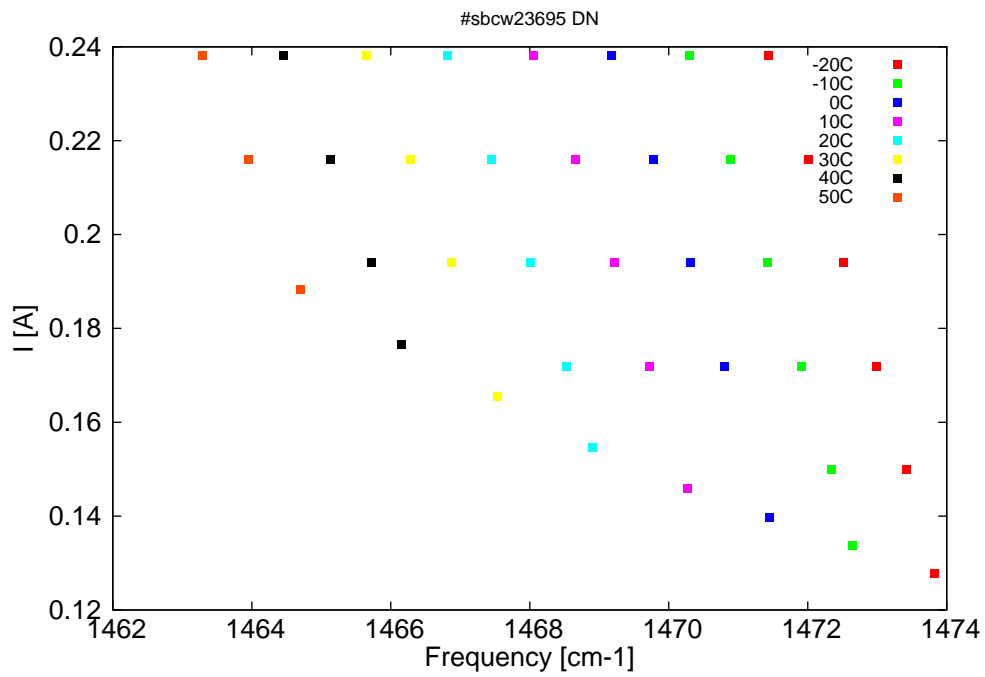


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
6785.1	1473.8	0.2	-20	10.6	0.128
6786.9	1473.4	13.2	-20	10.9	0.15
6788.9	1473	28.3	-20	11.2	0.172
6791.1	1472.5	40.9	-20	11.49	0.194
6793.4	1472	47.9	-20	11.8	0.216
6796.1	1471.4	61.6	-20	12.11	0.238
6790.5	1472.6	0.3	-10	10.53	0.134
6791.9	1472.3	10.1	-10	10.75	0.15
6793.9	1471.9	23.8	-10	11.05	0.172
6796.1	1471.4	37	-10	11.35	0.194
6798.6	1470.9	48.4	-10	11.65	0.216
6801.3	1470.3	57.8	-10	11.97	0.238
6796	1471.5	0.3	0	10.47	0.14
6799	1470.8	19.9	0	10.92	0.172
6801.3	1470.3	32.8	0	11.22	0.194
6803.7	1469.8	44.2	0	11.53	0.216
6806.5	1469.2	53.1	0	11.85	0.238
6801.5	1470.3	0.1	10	10.43	0.146
6804	1469.7	15.3	10	10.79	0.172
6806.3	1469.2	28.1	10	11.1	0.194
6808.9	1468.7	39.2	10	11.41	0.216
6811.8	1468	48.3	10	11.73	0.238
6807.8	1468.9	0.3	20	10.42	0.155
6809.6	1468.5	9.7	20	10.67	0.172
6811.9	1468	22.1	20	10.97	0.194
6814.5	1467.5	33.3	20	11.29	0.216
6817.5	1466.8	42.5	20	11.6	0.238
6814.1	1467.5	0.7	30	10.46	0.166
6817.2	1466.9	16.2	30	10.86	0.194
6820	1466.3	27.4	30	11.18	0.216
6822.9	1465.7	36.6	30	11.5	0.238
6820.6	1466.2	0.6	40	10.51	0.177
6822.6	1465.7	9.8	40	10.75	0.194
6825.4	1465.1	20.5	40	11.07	0.216
6828.4	1464.5	30.1	40	11.39	0.238
6827.3	1464.7	0.5	50	10.57	0.188
6830.8	1464	14.3	50	10.96	0.216
6833.9	1463.3	23.6	50	11.28	0.238

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

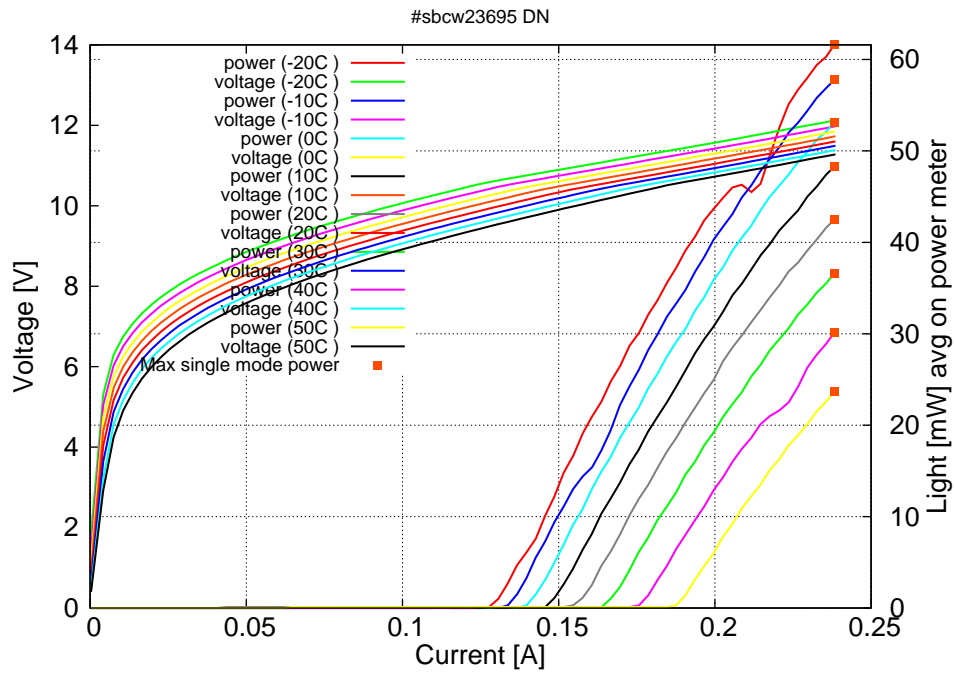


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.13A$ / $V_{th}=10.6V$ (2-wires measurements). Maximum operation current: 0.24A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

