

Datasheet for #sbcw24694 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 #sbcw24694 DN (please note that AlN submount numbering is A0VFJ)

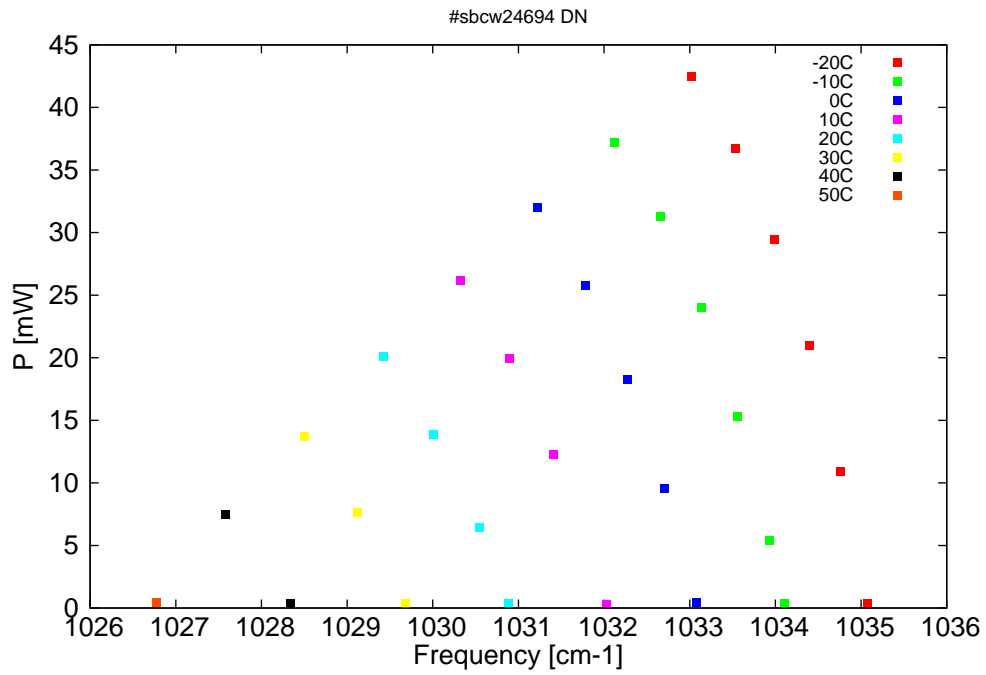


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

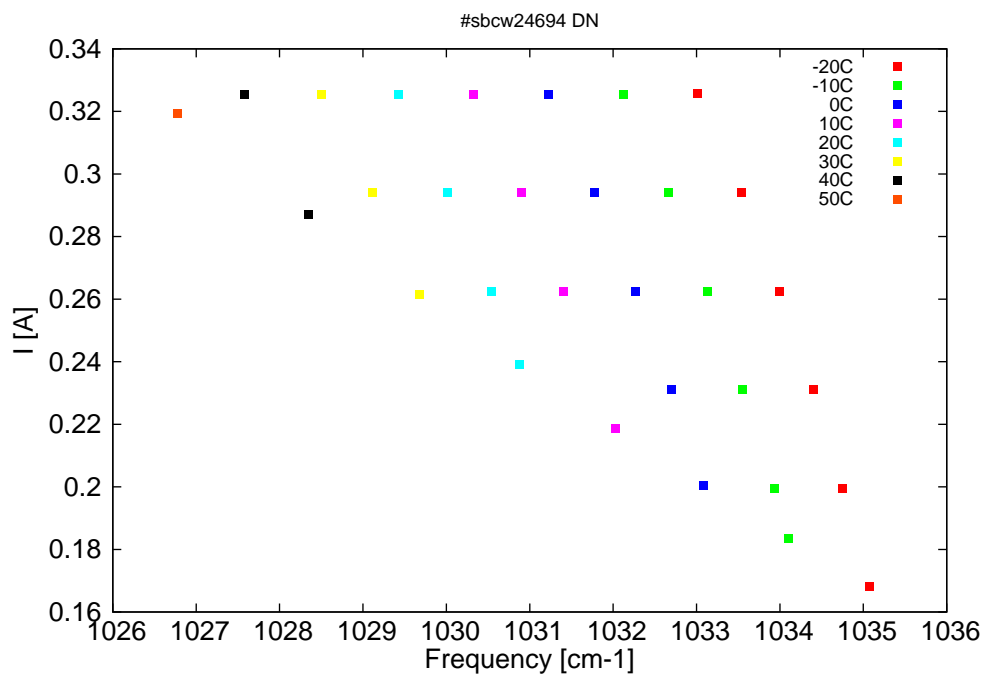


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
9661.1	1035.1	0.4	-20	9.42	0.168
9664.1	1034.8	10.9	-20	9.81	0.2
9667.5	1034.4	20.9	-20	10.2	0.231
9671.2	1034	29.5	-20	10.6	0.263
9675.5	1033.5	36.8	-20	10.99	0.294
9680.4	1033	42.5	-20	11.42	0.326
9670.2	1034.1	0.4	-10	9.46	0.184
9671.8	1033.9	5.4	-10	9.66	0.2
9675.3	1033.6	15.3	-10	10.04	0.231
9679.3	1033.1	24	-10	10.43	0.263
9683.7	1032.7	31.3	-10	10.83	0.294
9688.8	1032.1	37.2	-10	11.25	0.326
9679.8	1033.1	0.4	0	9.57	0.201
9683.3	1032.7	9.6	0	9.94	0.231
9687.4	1032.3	18.3	0	10.33	0.263
9692	1031.8	25.8	0	10.72	0.294
9697.2	1031.2	32	0	11.14	0.326
9689.7	1032	0.3	10	9.71	0.219
9695.5	1031.4	12.3	10	10.24	0.263
9700.3	1030.9	20	10	10.64	0.294
9705.7	1030.3	26.1	10	11.05	0.326
9700.5	1030.9	0.4	20	9.88	0.239
9703.6	1030.5	6.5	20	10.17	0.263
9708.6	1030	13.9	20	10.57	0.294
9714.2	1029.4	20.1	20	10.97	0.326
9711.7	1029.7	0.4	30	10.1	0.261
9717.1	1029.1	7.6	30	10.5	0.294
9722.9	1028.5	13.7	30	10.91	0.326
9724.4	1028.3	0.4	40	10.36	0.287
9731.6	1027.6	7.5	40	10.86	0.326
9739.2	1026.8	0.4	50	10.71	0.319

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

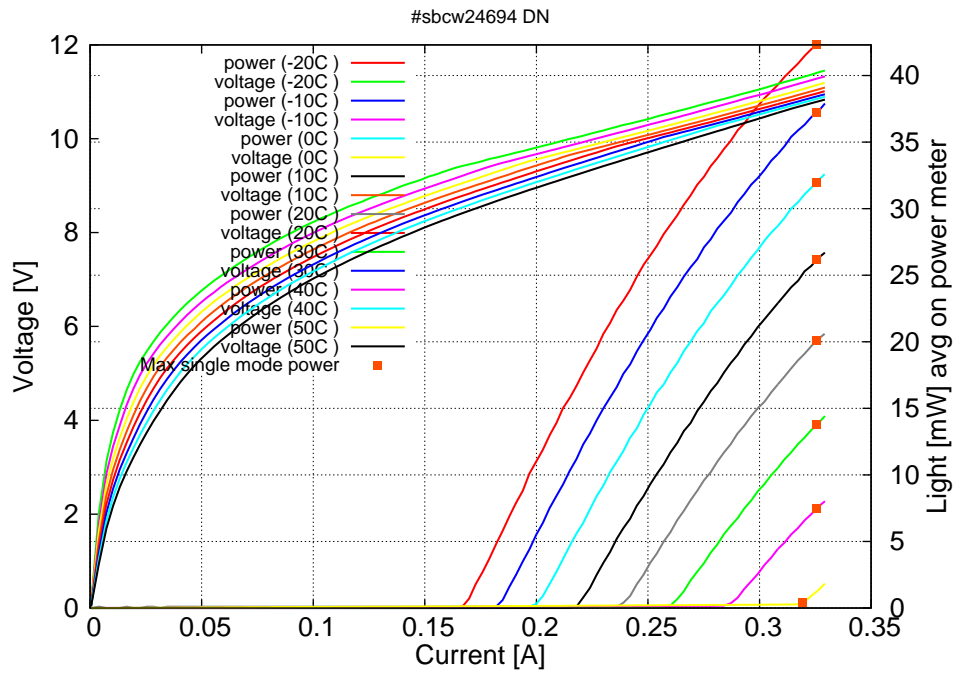


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.17A$ / $V_{th}=9.4V$ (2-wires measurements). Maximum operation current: 0.33A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

