

**Datasheet for #sbcw24695 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 #sbcw24695 DN (please note that AlN submount numbering is A0VCE)

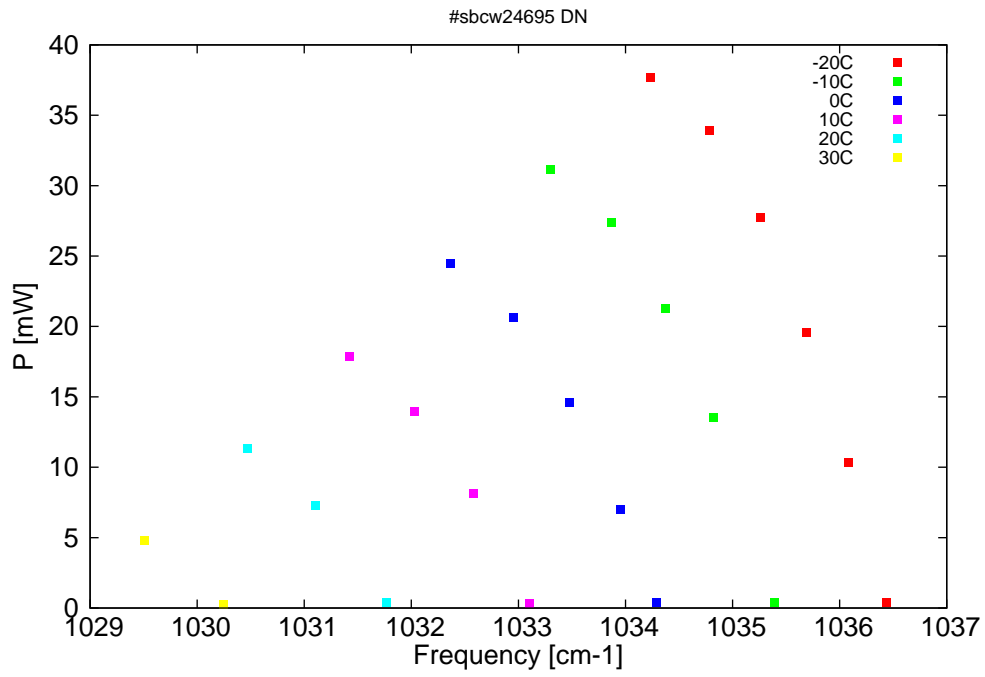


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

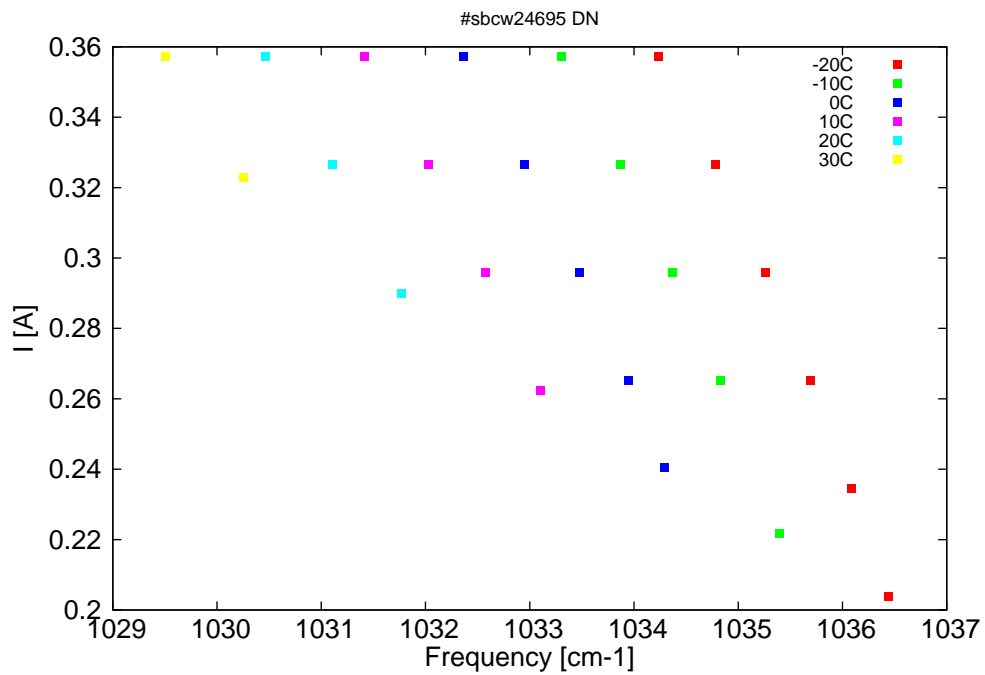


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
9648.4	1036.4	0.4	-20	9.59	0.204
9651.7	1036.1	10.3	-20	9.93	0.235
9655.4	1035.7	19.6	-20	10.27	0.265
9659.4	1035.3	27.7	-20	10.62	0.296
9663.9	1034.8	33.9	-20	10.96	0.327
9669	1034.2	37.7	-20	11.33	0.357
9658.2	1035.4	0.4	-10	9.71	0.222
9663.5	1034.8	13.5	-10	10.19	0.265
9667.7	1034.4	21.3	-10	10.54	0.296
9672.4	1033.9	27.4	-10	10.89	0.327
9677.7	1033.3	31.2	-10	11.27	0.357
9668.4	1034.3	0.4	0	9.85	0.241
9671.6	1034	7	0	10.12	0.265
9676.1	1033.5	14.6	0	10.47	0.296
9681	1033	20.7	0	10.83	0.327
9686.5	1032.4	24.5	0	11.2	0.357
9679.6	1033.1	0.3	10	10.03	0.262
9684.5	1032.6	8.2	10	10.41	0.296
9689.6	1032	14	10	10.77	0.327
9695.4	1031.4	17.9	10	11.15	0.357
9692.1	1031.8	0.4	20	10.29	0.29
9698.3	1031.1	7.3	20	10.72	0.327
9704.3	1030.5	11.3	20	11.1	0.357
9706.4	1030.3	0.3	30	10.64	0.323
9713.4	1029.5	4.8	30	11.06	0.357

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

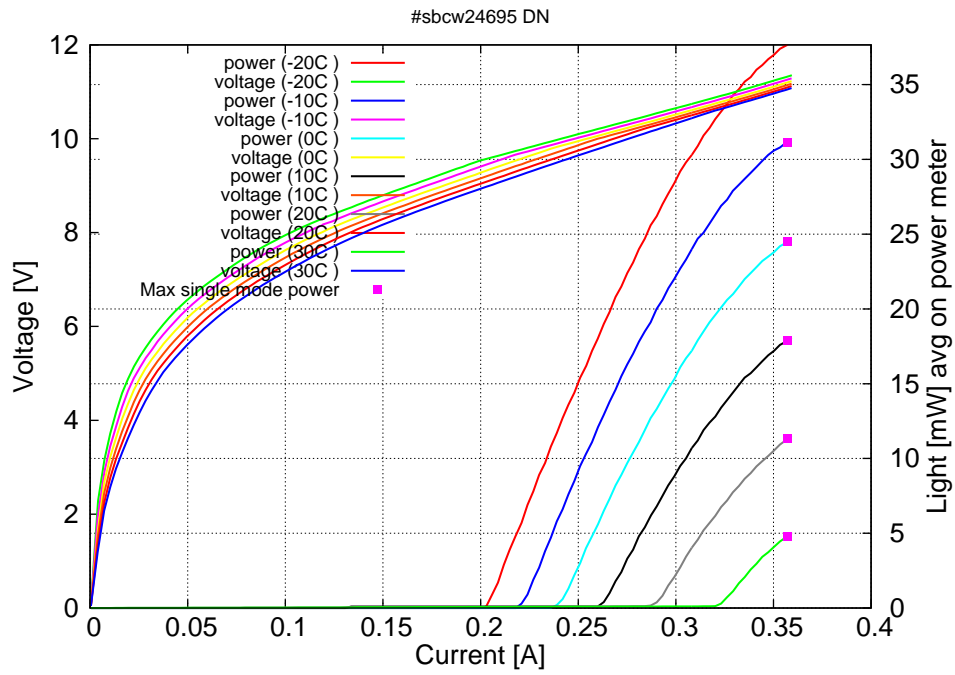


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.20A$  /  $V_{th}=9.5V$  (2-wires measurements). Maximum operation current: 0.36A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

