

Datasheet for #sbcw22694 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 #sbcw22694 DN (please note that AlN submount numbering is A0X6D)

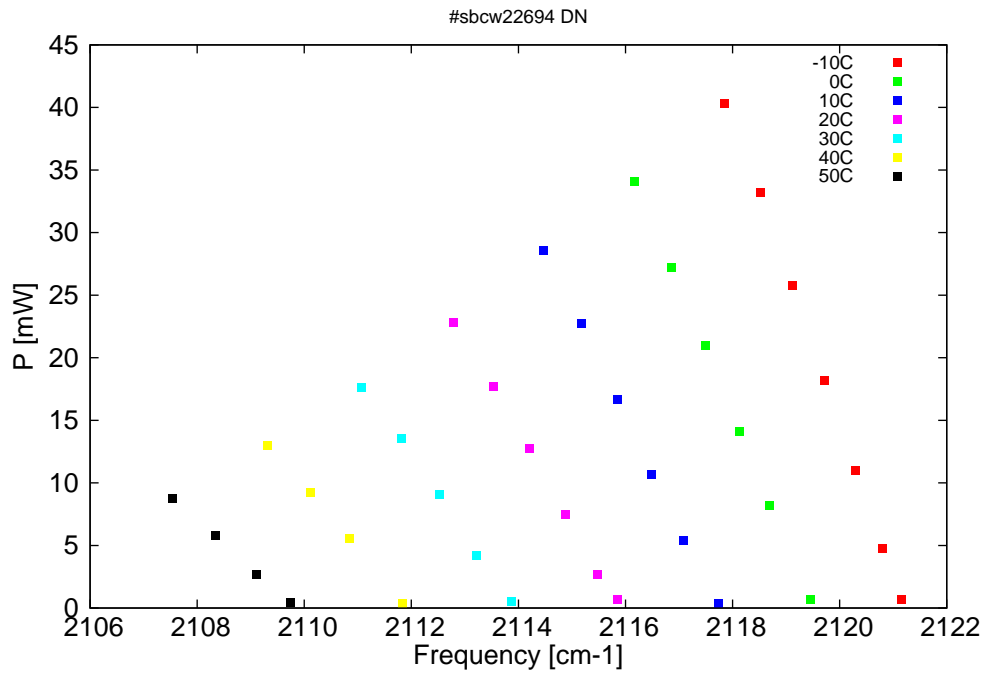


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

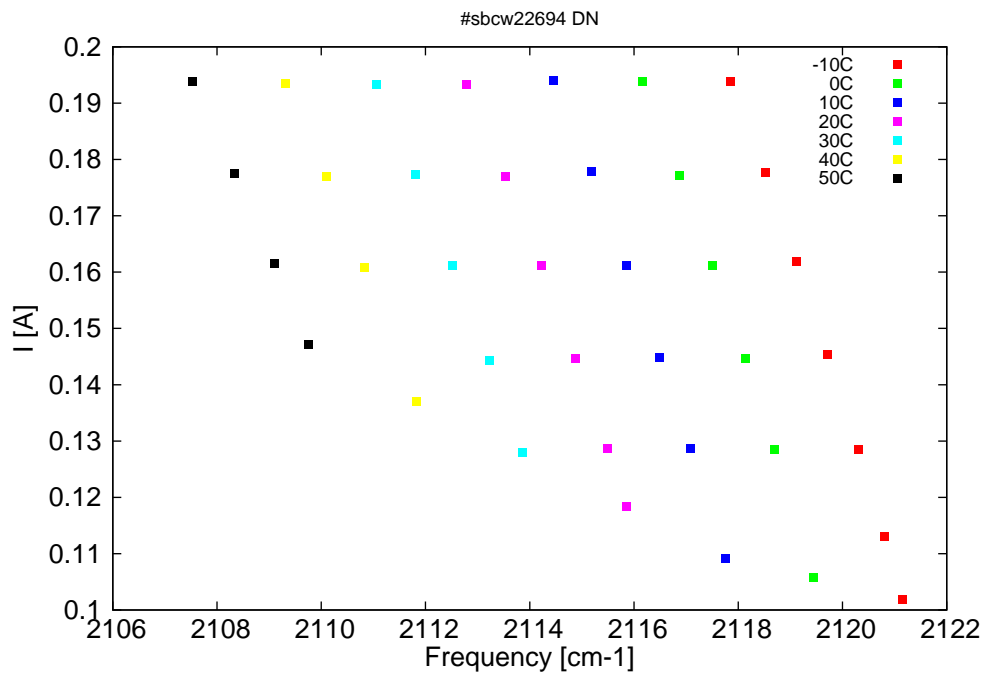


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4714.4	2121.2	0.7	-10	11.57	0.102
4715.2	2120.8	4.7	-10	11.67	0.113
4716.3	2120.3	11	-10	11.82	0.128
4717.6	2119.7	18.2	-10	12	0.145
4718.9	2119.1	25.7	-10	12.2	0.162
4720.3	2118.5	33.2	-10	12.4	0.178
4721.8	2117.8	40.3	-10	12.63	0.194
4718.2	2119.5	0.7	0	11.54	0.106
4719.9	2118.7	8.2	0	11.75	0.129
4721.1	2118.1	14.1	0	11.93	0.145
4722.6	2117.5	20.9	0	12.12	0.161
4724	2116.9	27.2	0	12.33	0.177
4725.5	2116.2	34.1	0	12.56	0.194
4722	2117.7	0.3	10	11.52	0.109
4723.5	2117.1	5.4	10	11.69	0.129
4724.8	2116.5	10.7	10	11.86	0.145
4726.2	2115.9	16.7	10	12.06	0.161
4727.7	2115.2	22.7	10	12.27	0.178
4729.3	2114.5	28.6	10	12.49	0.194
4726.2	2115.8	0.6	20	11.55	0.118
4727.1	2115.5	2.7	20	11.64	0.129
4728.4	2114.9	7.4	20	11.81	0.145
4729.9	2114.2	12.8	20	11.99	0.161
4731.4	2113.5	17.7	20	12.19	0.177
4733.1	2112.8	22.8	20	12.42	0.193
4730.7	2113.9	0.6	30	11.6	0.128
4732.1	2113.2	4.2	30	11.75	0.144
4733.7	2112.5	9.1	30	11.94	0.161
4735.3	2111.8	13.6	30	12.14	0.177
4736.9	2111.1	17.6	30	12.35	0.193
4735.2	2111.8	0.3	40	11.65	0.137
4737.5	2110.8	5.6	40	11.89	0.161
4739.1	2110.1	9.2	40	12.08	0.177
4740.9	2109.3	13	40	12.29	0.193
4739.9	2109.8	0.4	50	11.72	0.147
4741.4	2109.1	2.7	50	11.86	0.161
4743.1	2108.3	5.8	50	12.04	0.178
4744.9	2107.5	8.8	50	12.24	0.194

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

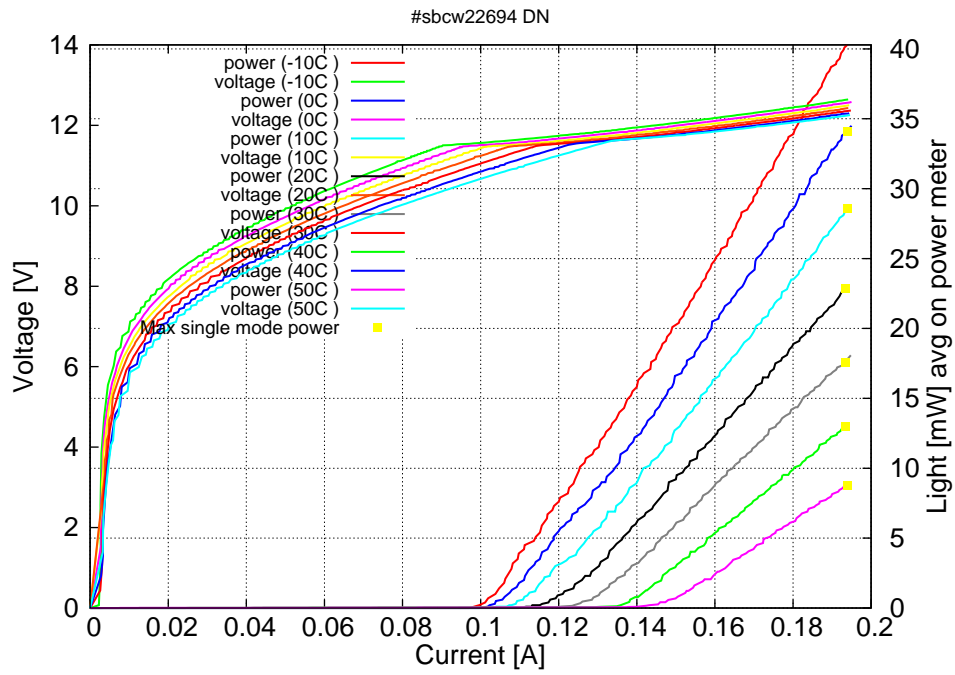


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -10C: $I_{th}=0.10A$ / $V_{th}=11.6V$ (2-wires measurements). Maximum operation current: 0.195A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

