

Datasheet for #sbcw18244 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 #sbcw18244 DN (please note that AlN submount numbering is A0LGL)

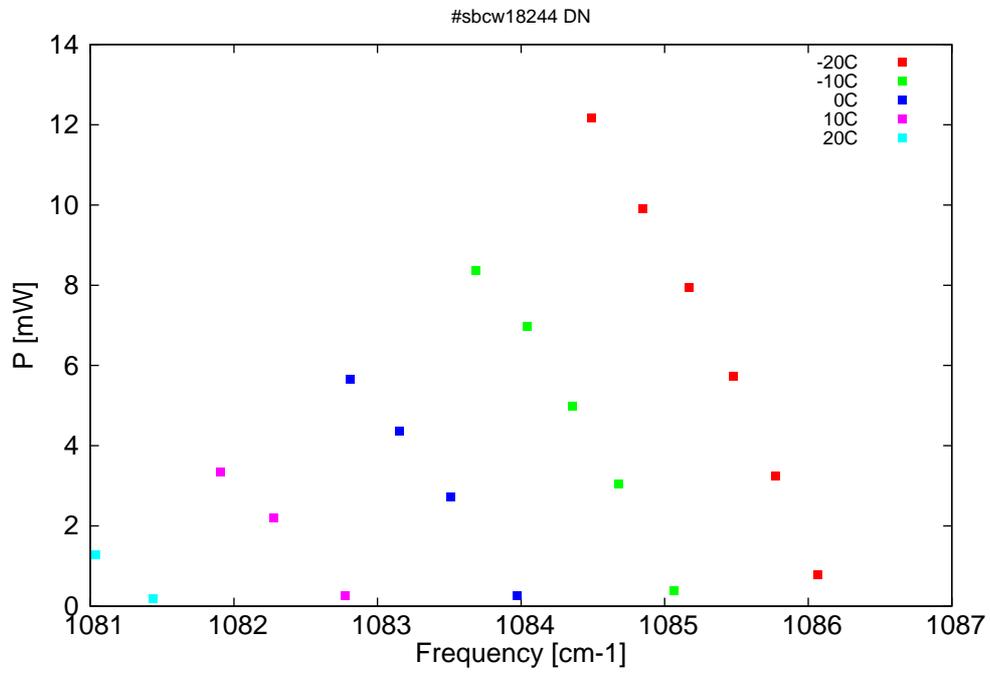


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

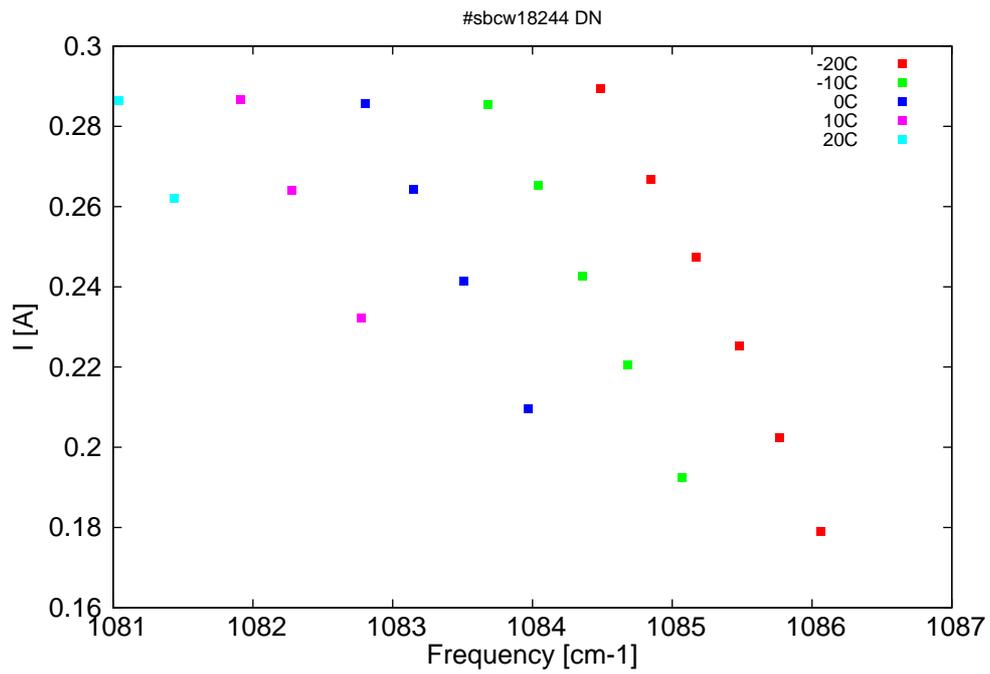


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
9207.5	1086.1	0.8	-20	11.01	0.179
9210.1	1085.8	3.2	-20	11.38	0.202
9212.5	1085.5	5.7	-20	11.71	0.225
9215.1	1085.2	7.9	-20	12.03	0.247
9217.9	1084.8	9.9	-20	12.32	0.267
9220.9	1084.5	12.2	-20	12.62	0.289
9216	1085.1	0.4	-10	10.87	0.192
9219.3	1084.7	3.1	-10	11.3	0.221
9222	1084.4	5	-10	11.61	0.243
9224.8	1084	7	-10	11.88	0.265
9227.8	1083.7	8.4	-10	12.16	0.285
9225.3	1084	0.3	0	10.97	0.21
9229.3	1083.5	2.7	0	11.41	0.241
9232.3	1083.2	4.4	0	11.7	0.264
9235.3	1082.8	5.7	0	11.96	0.286
9235.5	1082.8	0.3	10	11.13	0.232
9239.8	1082.3	2.2	10	11.55	0.264
9242.9	1081.9	3.3	10	11.81	0.287
9246.9	1081.4	0.2	20	11.37	0.262
9250.4	1081	1.3	20	11.66	0.286

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

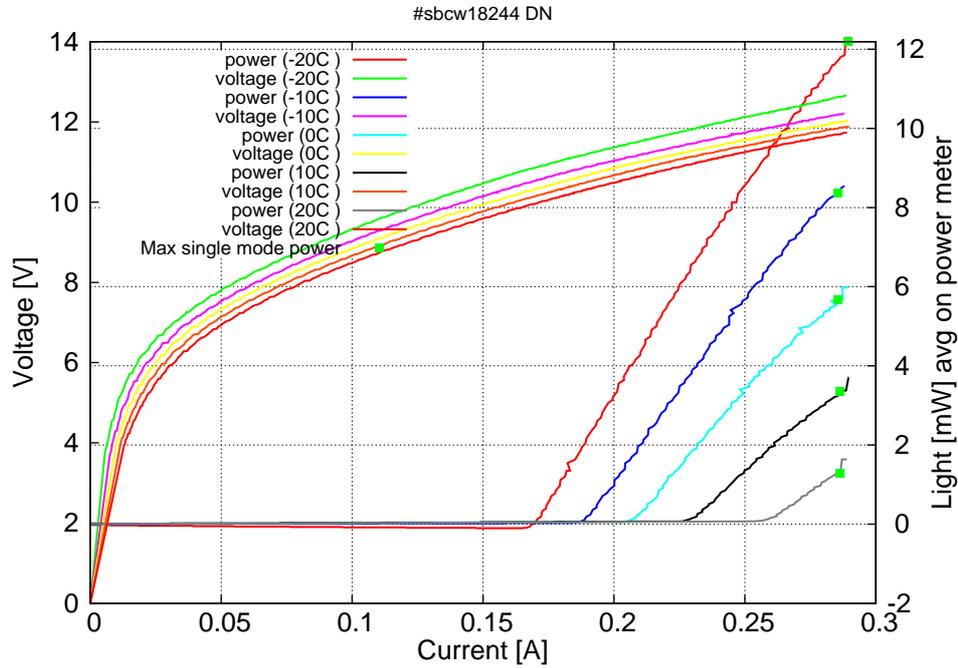


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.17A$ / $V_{th}=10.8V$ (2-wires measurements). Maximum operation current: 0.29A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

