

Datasheet for #sbcw18240 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 #sbcw18240 DN (please note that AlN submount numbering is A0L0L)

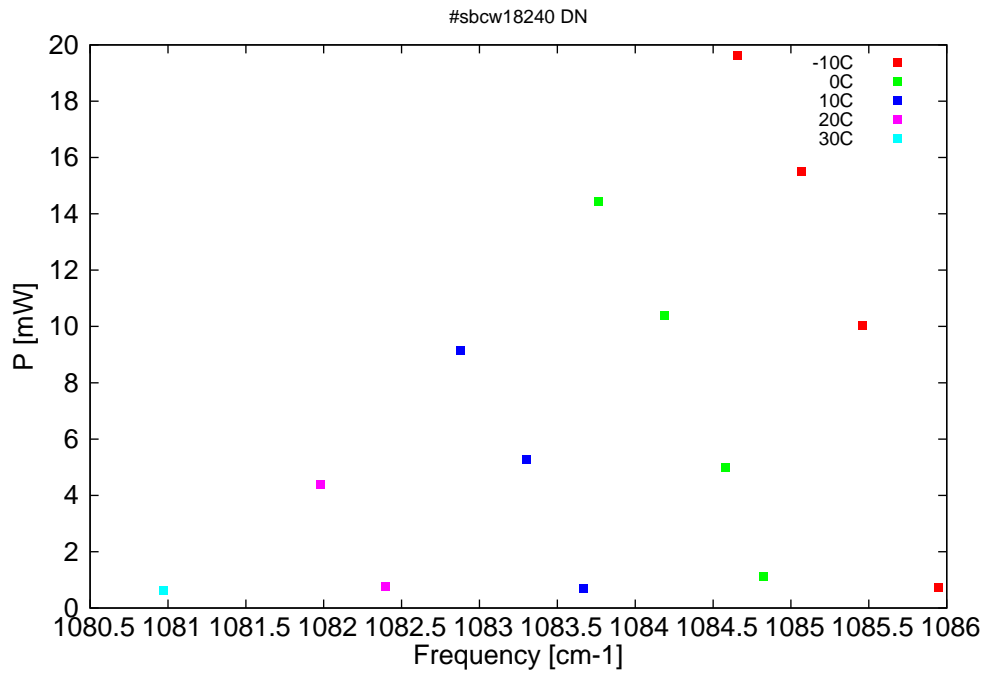


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

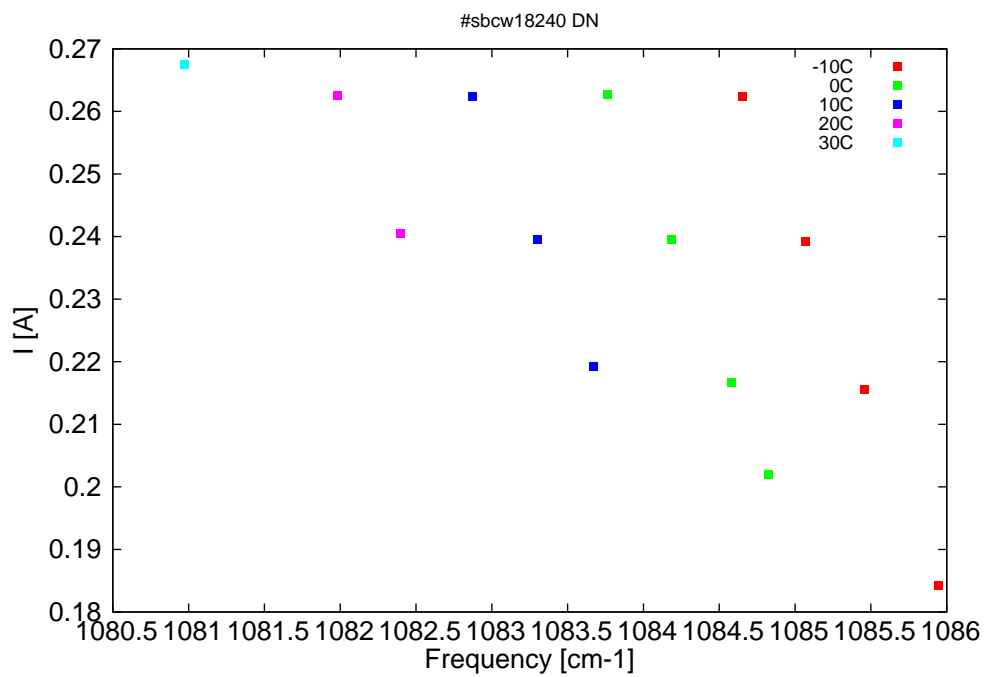


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
9208.6	1085.9	0.7	-10	11.72	0.184
9212.7	1085.5	10	-10	12.25	0.216
9216	1085.1	15.5	-10	12.62	0.239
9219.5	1084.7	19.6	-10	12.97	0.262
9218.1	1084.8	1.1	0	11.82	0.202
9220.1	1084.6	5	0	12.07	0.217
9223.5	1084.2	10.4	0	12.43	0.239
9227.1	1083.8	14.4	0	12.79	0.263
9227.9	1083.7	0.7	10	11.95	0.219
9231.1	1083.3	5.3	10	12.27	0.24
9234.7	1082.9	9.1	10	12.62	0.262
9238.8	1082.4	0.8	20	12.15	0.241
9242.3	1082	4.4	20	12.48	0.262
9250.9	1081	0.6	30	12.43	0.267

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

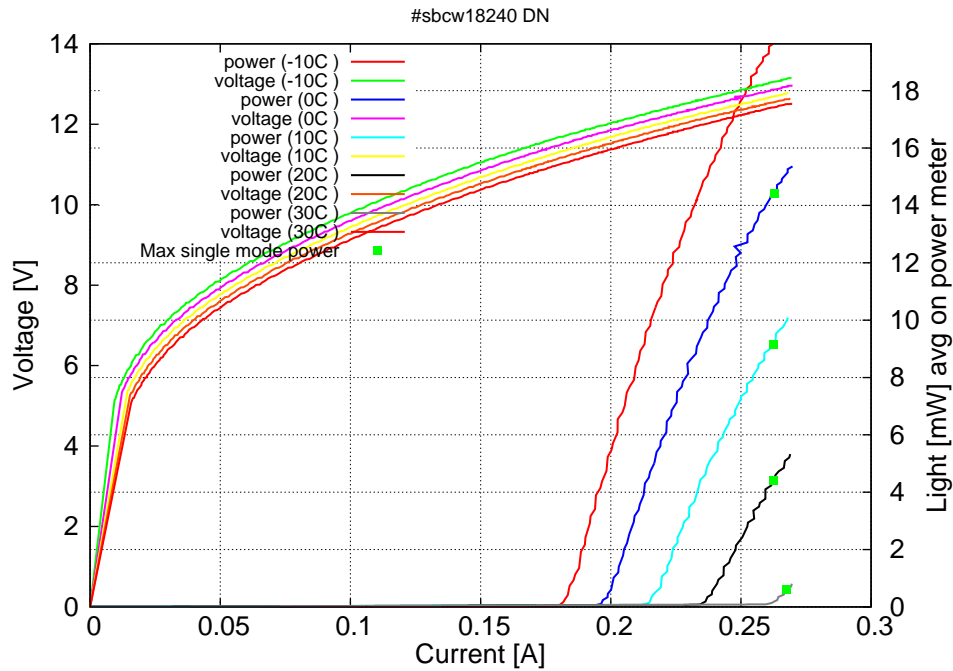


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -10C: $I_{th}=0.18A$ / $V_{th}=11.7V$ (2-wires measurements). Maximum operation current: 0.27A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

