

Datasheet for #sbcw24062 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 #sbcw24062 DN (please note that AlN submount numbering is A0ZRR)

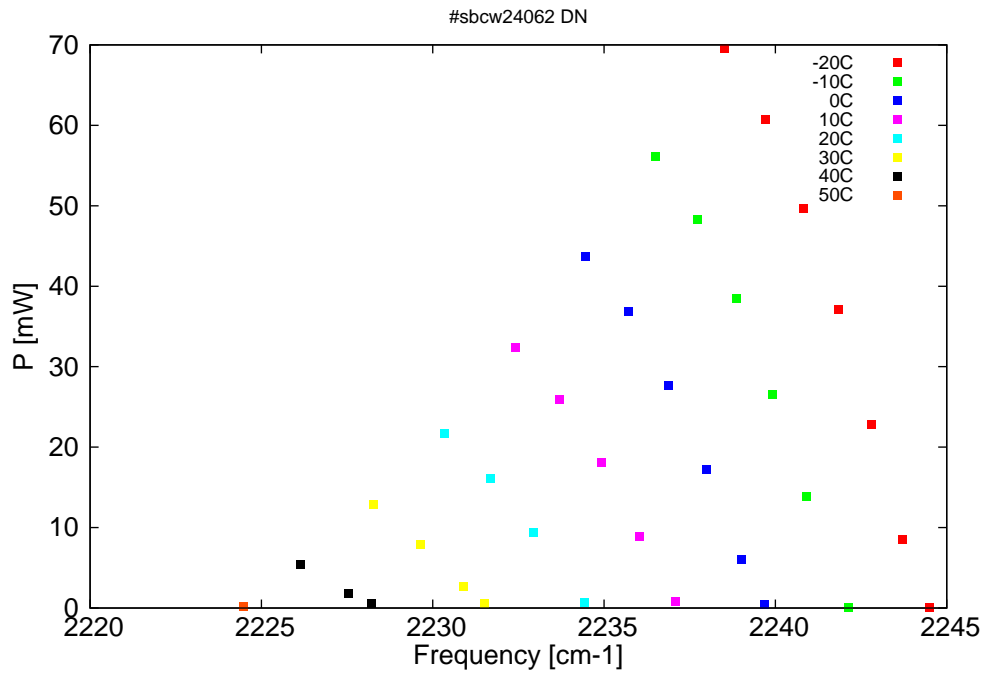


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

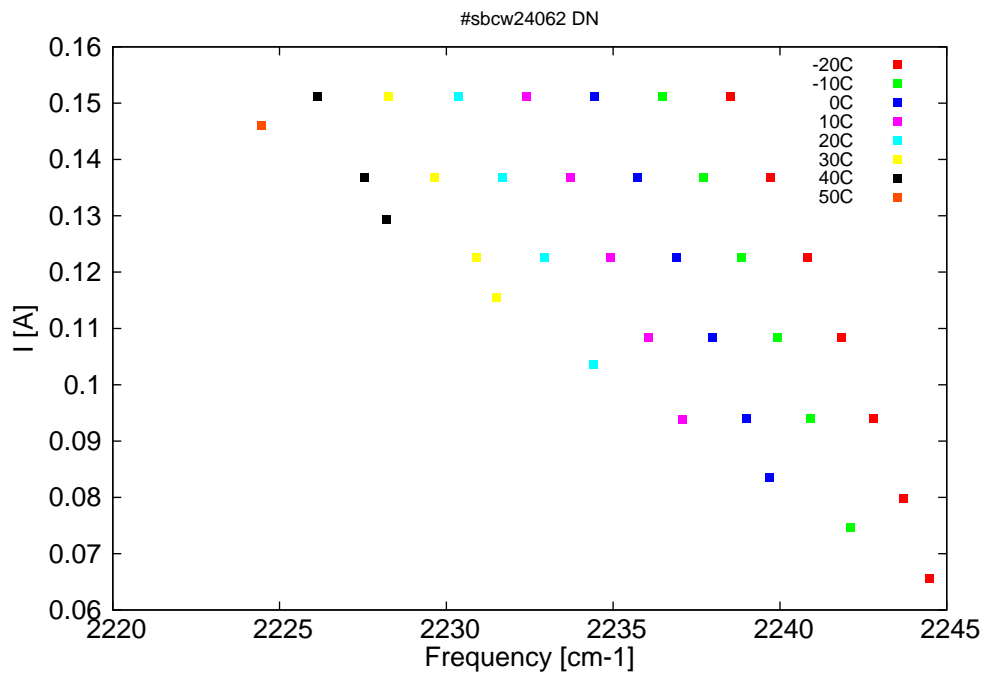


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4455.3	2244.5	0	-20	11.85	0.066
4456.9	2243.7	8.5	-20	12.08	0.08
4458.7	2242.8	22.8	-20	12.34	0.094
4460.6	2241.8	37.1	-20	12.58	0.108
4462.7	2240.8	49.7	-20	12.82	0.123
4464.9	2239.7	60.7	-20	13.07	0.137
4467.2	2238.5	69.5	-20	13.3	0.151
4460	2242.1	0.1	-10	11.88	0.075
4462.5	2240.9	13.9	-10	12.21	0.094
4464.4	2239.9	26.5	-10	12.46	0.108
4466.6	2238.9	38.4	-10	12.71	0.123
4468.8	2237.7	48.3	-10	12.95	0.137
4471.3	2236.5	56.1	-10	13.19	0.151
4464.9	2239.7	0.4	0	11.93	0.084
4466.3	2239	6	0	12.1	0.094
4468.3	2238	17.2	0	12.35	0.108
4470.5	2236.9	27.7	0	12.59	0.123
4472.8	2235.7	36.9	0	12.83	0.137
4475.4	2234.5	43.8	0	13.07	0.151
4470.1	2237.1	0.9	10	12.01	0.094
4472.2	2236	8.9	10	12.24	0.108
4474.4	2234.9	18	10	12.49	0.123
4476.9	2233.7	26	10	12.73	0.137
4479.5	2232.4	32.4	10	12.97	0.151
4475.4	2234.4	0.7	20	12.09	0.104
4478.4	2232.9	9.4	20	12.39	0.123
4480.9	2231.7	16.2	20	12.63	0.137
4483.6	2230.4	21.7	20	12.86	0.151
4481.3	2231.5	0.6	30	12.2	0.115
4482.5	2230.9	2.7	30	12.31	0.123
4485	2229.6	7.9	30	12.54	0.137
4487.8	2228.3	12.8	30	12.78	0.151
4487.9	2228.2	0.6	40	12.37	0.129
4489.3	2227.5	1.9	40	12.48	0.137
4492.1	2226.1	5.4	40	12.7	0.151
4495.5	2224.5	0.2	50	12.59	0.146

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

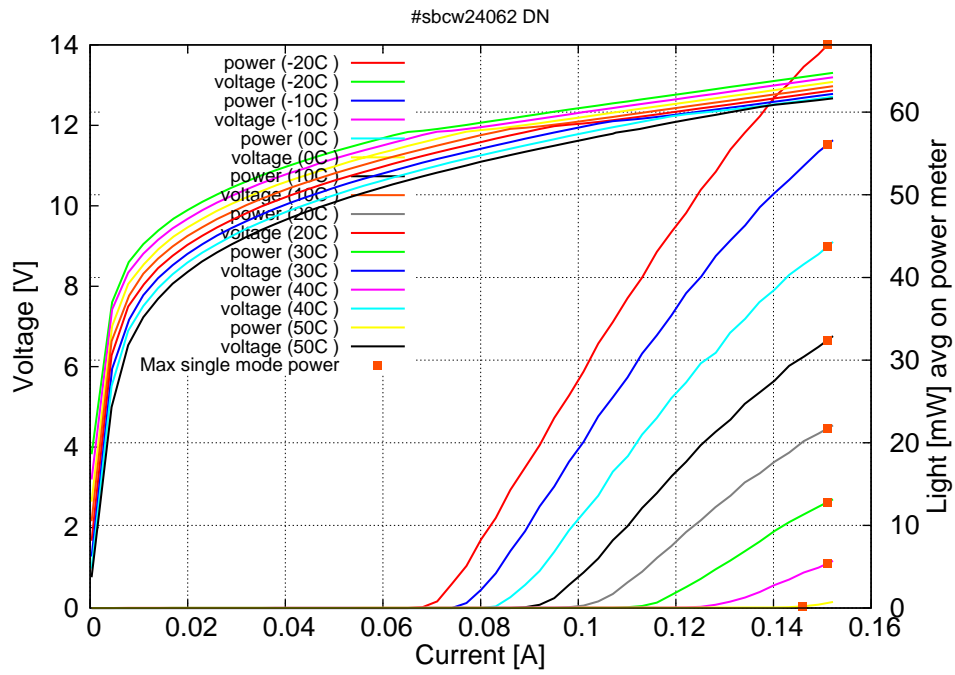


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.07A$ / $V_{th}=11.9V$ (2-wires measurements). Maximum operation current: 0.155A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

