

Datasheet for #sbcw24273 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 #sbcw24273 DN (please note that AlN submount numbering is A0ZMY)

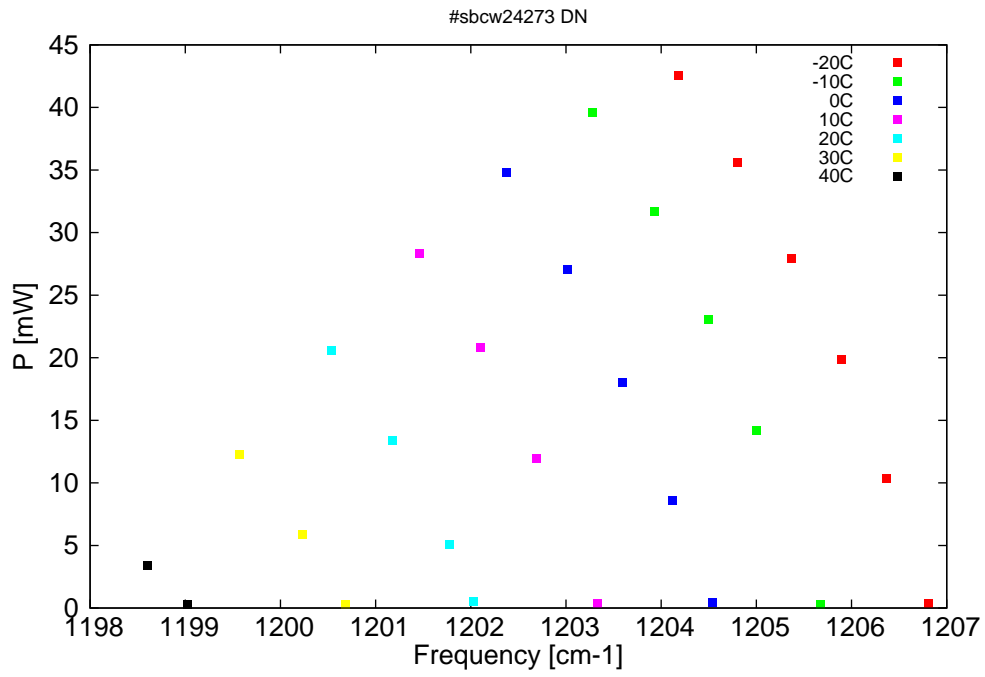


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

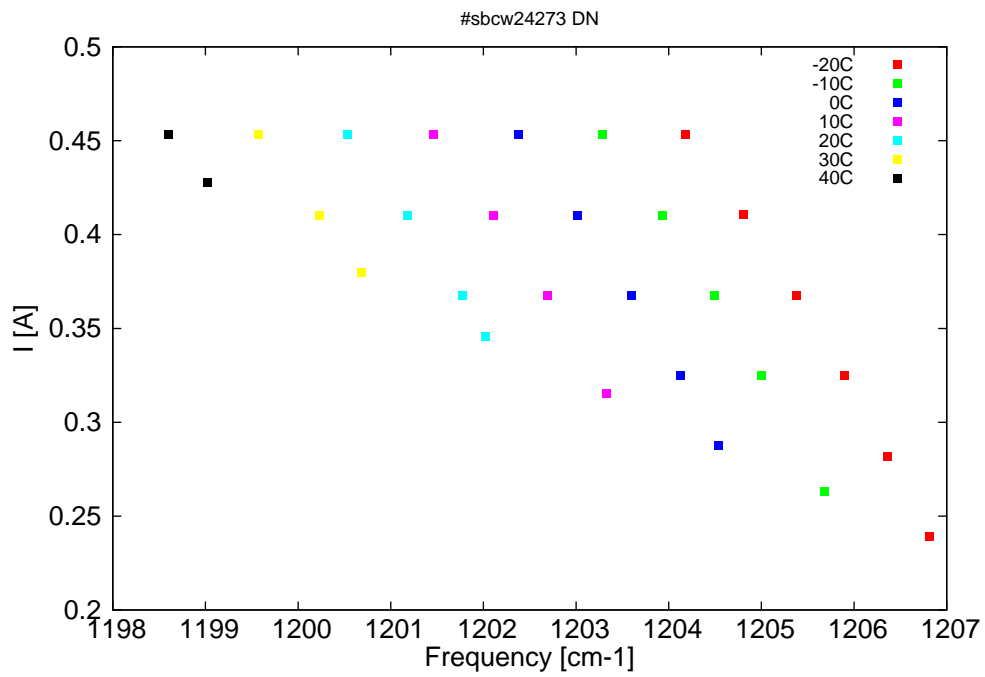


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
8286.3	1206.8	0.3	-20	9.55	0.239
8289.4	1206.4	10.3	-20	10.06	0.282
8292.6	1205.9	19.9	-20	10.55	0.325
8296.2	1205.4	27.9	-20	11	0.368
8300.1	1204.8	35.6	-20	11.43	0.411
8304.4	1204.2	42.6	-20	11.83	0.453
8294.1	1205.7	0.3	-10	9.57	0.263
8298.8	1205	14.2	-10	10.25	0.325
8302.2	1204.5	23.1	-10	10.68	0.368
8306.1	1203.9	31.7	-10	11.1	0.41
8310.6	1203.3	39.6	-10	11.48	0.453
8301.9	1204.5	0.4	0	9.59	0.288
8304.8	1204.1	8.6	0	9.97	0.325
8308.4	1203.6	18	0	10.39	0.368
8312.4	1203	27	0	10.79	0.41
8316.8	1202.4	34.8	0	11.17	0.453
8310.3	1203.3	0.4	10	9.62	0.316
8314.7	1202.7	12	10	10.12	0.368
8318.7	1202.1	20.8	10	10.5	0.41
8323.2	1201.5	28.3	10	10.86	0.453
8319.3	1202	0.5	20	9.67	0.346
8321	1201.8	5.1	20	9.87	0.368
8325.1	1201.2	13.4	20	10.24	0.41
8329.6	1200.5	20.6	20	10.59	0.453
8328.6	1200.7	0.3	30	9.75	0.38
8331.7	1200.2	5.8	30	10	0.41
8336.3	1199.6	12.3	30	10.35	0.453
8340.1	1199	0.3	40	9.92	0.428
8343	1198.6	3.4	40	10.12	0.453

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

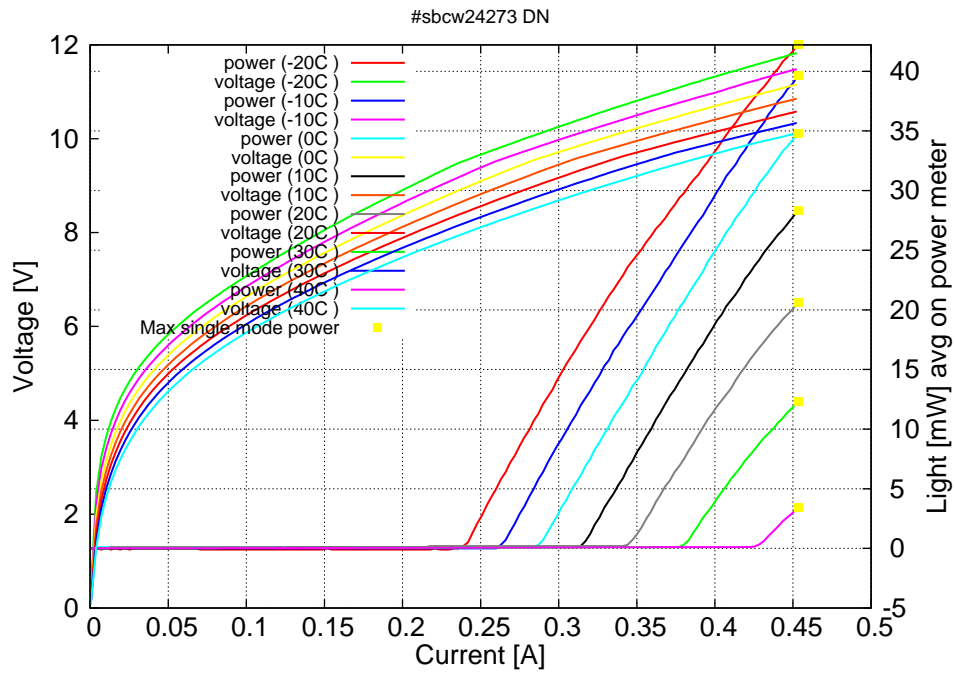


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.23A$ / $V_{th}=9.4V$ (2-wires measurements). Maximum operation current: 0.455A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

