

Datasheet for #sbcw24863 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 #sbcw24863 DN (please note that AlN submount numbering is A0ZGN)

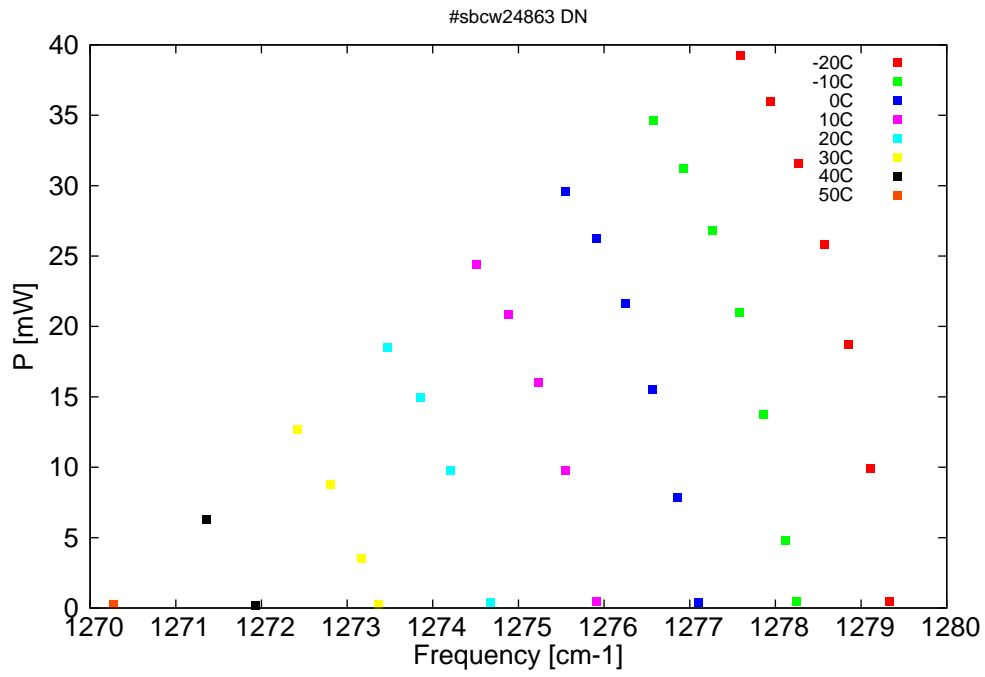


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

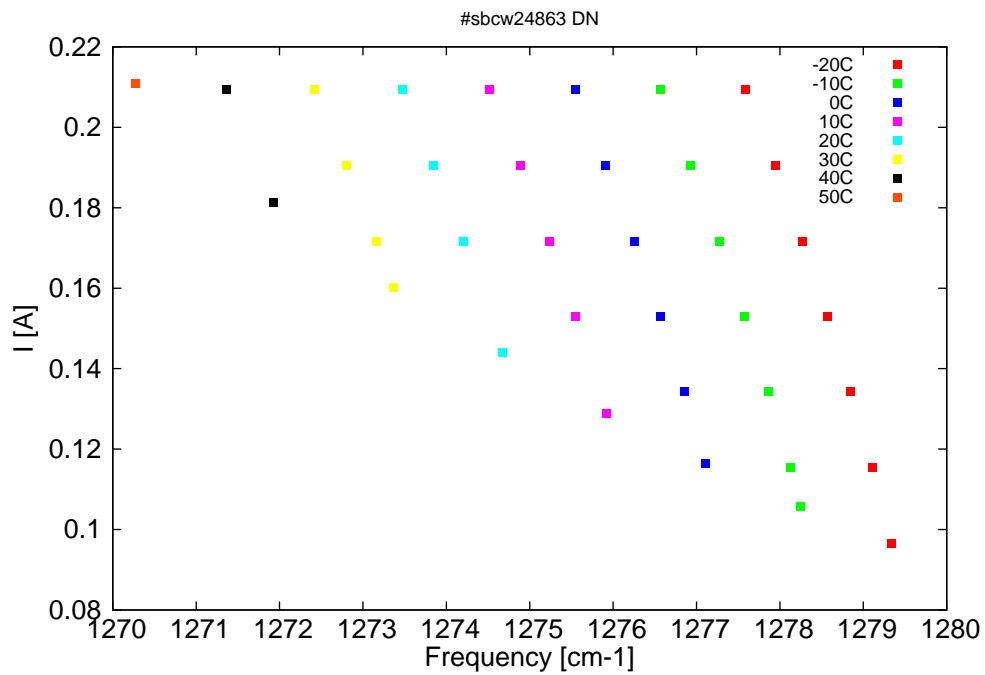


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
7816.5	1279.3	0.5	-20	8.28	0.097
7818	1279.1	9.9	-20	8.57	0.115
7819.5	1278.9	18.7	-20	8.86	0.134
7821.2	1278.6	25.8	-20	9.15	0.153
7823.1	1278.3	31.6	-20	9.44	0.172
7825.1	1277.9	36	-20	9.72	0.191
7827.2	1277.6	39.3	-20	10	0.209
7823.2	1278.2	0.5	-10	8.29	0.106
7824	1278.1	4.8	-10	8.44	0.115
7825.6	1277.9	13.8	-10	8.73	0.134
7827.3	1277.6	21	-10	9	0.153
7829.2	1277.3	26.8	-10	9.29	0.172
7831.3	1276.9	31.2	-10	9.57	0.191
7833.5	1276.6	34.7	-10	9.84	0.209
7830.2	1277.1	0.4	0	8.33	0.116
7831.7	1276.9	7.8	0	8.59	0.134
7833.5	1276.6	15.5	0	8.87	0.153
7835.4	1276.3	21.6	0	9.15	0.172
7837.5	1275.9	26.2	0	9.42	0.191
7839.8	1275.5	29.6	0	9.7	0.209
7837.5	1275.9	0.4	10	8.41	0.129
7839.8	1275.6	9.8	10	8.75	0.153
7841.7	1275.2	16	10	9.02	0.172
7843.8	1274.9	20.8	10	9.3	0.191
7846.1	1274.5	24.4	10	9.56	0.209
7845.2	1274.7	0.4	20	8.52	0.144
7848.1	1274.2	9.8	20	8.91	0.172
7850.2	1273.9	14.9	20	9.17	0.191
7852.5	1273.5	18.5	20	9.44	0.209
7853.2	1273.4	0.2	30	8.65	0.16
7854.5	1273.2	3.5	30	8.8	0.172
7856.7	1272.8	8.7	30	9.06	0.191
7859	1272.4	12.6	30	9.32	0.209
7862	1271.9	0.2	40	8.83	0.181
7865.6	1271.4	6.3	40	9.21	0.209
7872.3	1270.3	0.2	50	9.13	0.211

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

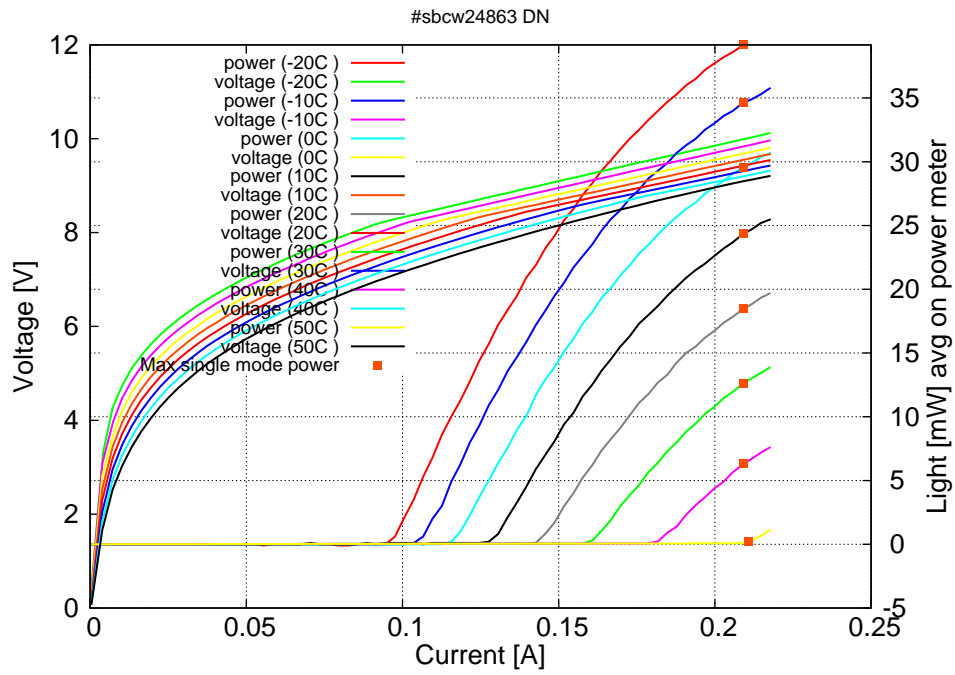


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.09A$ / $V_{th}=8.25V$ (2-wires measurements). Maximum operation current: 0.220A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

