

Datasheet for #sbcw24837 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.

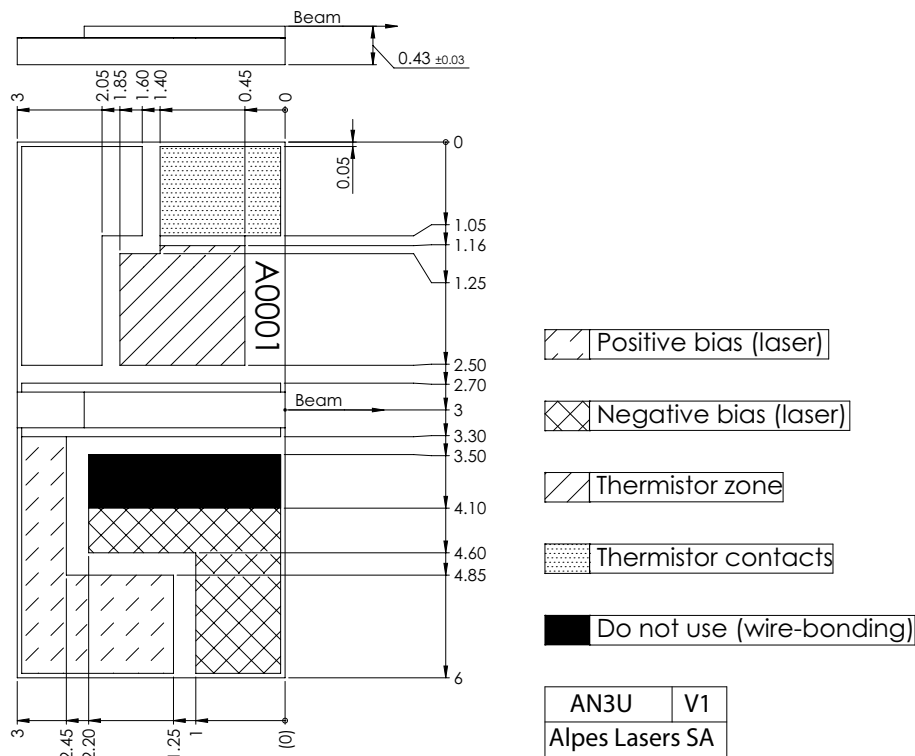


Figure 1: Mechanical and electrical interface for #sbcw24837 DN (please note that AlN submount numbering is A11VY)

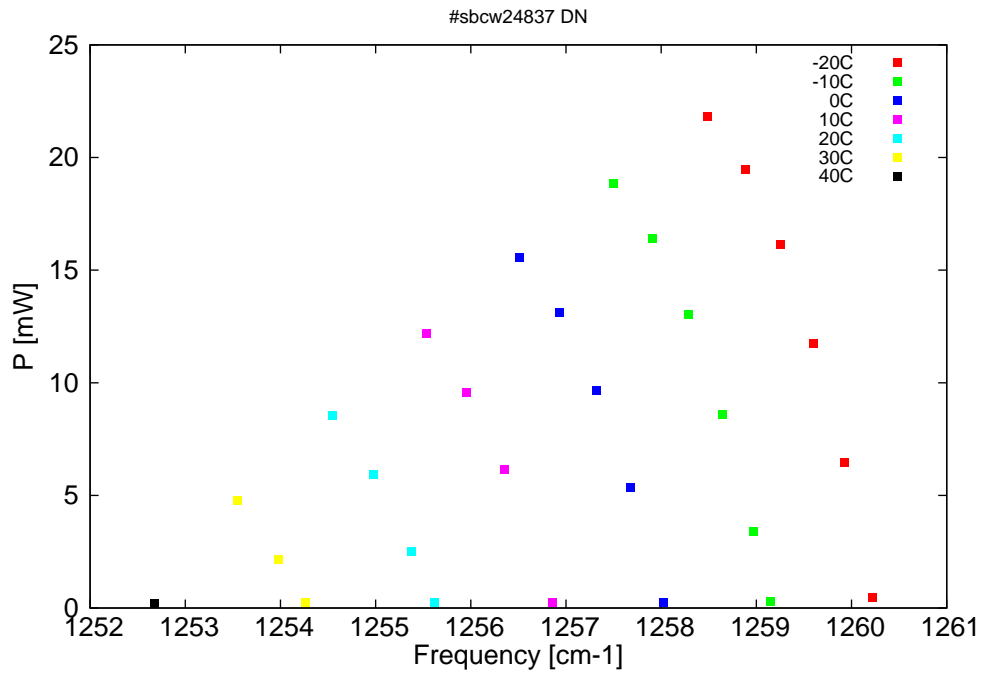


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

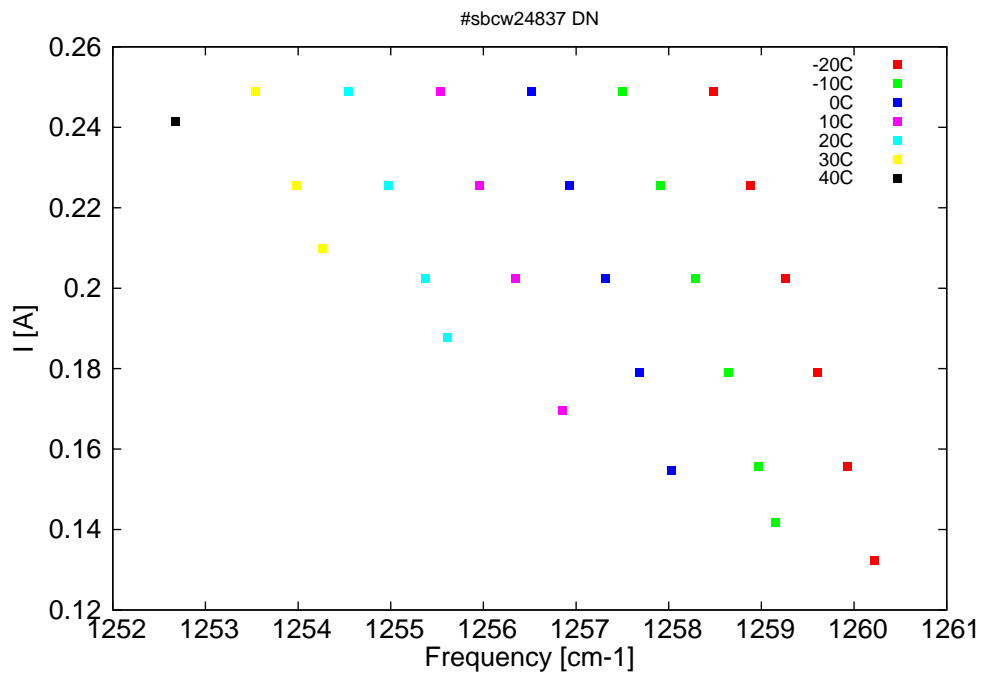


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
7935.1	1260.2	0.5	-20	8.64	0.132
7937	1259.9	6.5	-20	8.91	0.156
7939	1259.6	11.7	-20	9.18	0.179
7941.2	1259.3	16.1	-20	9.45	0.202
7943.5	1258.9	19.5	-20	9.71	0.226
7946	1258.5	21.8	-20	9.97	0.249
7941.8	1259.2	0.3	-10	8.62	0.142
7943	1259	3.4	-10	8.78	0.156
7945.1	1258.6	8.6	-10	9.04	0.179
7947.3	1258.3	13	-10	9.31	0.202
7949.7	1257.9	16.4	-10	9.57	0.226
7952.3	1257.5	18.8	-10	9.83	0.249
7949	1258	0.3	0	8.65	0.155
7951.1	1257.7	5.3	0	8.92	0.179
7953.4	1257.3	9.7	0	9.18	0.202
7955.9	1256.9	13.1	0	9.44	0.226
7958.5	1256.5	15.6	0	9.7	0.249
7956.3	1256.9	0.2	10	8.71	0.17
7959.6	1256.4	6.1	10	9.06	0.202
7962.1	1256	9.6	10	9.32	0.226
7964.8	1255.5	12.2	10	9.58	0.249
7964.2	1255.6	0.3	20	8.8	0.188
7965.7	1255.4	2.5	20	8.95	0.202
7968.3	1255	5.9	20	9.21	0.226
7971	1254.5	8.6	20	9.46	0.249
7972.8	1254.3	0.2	30	8.94	0.21
7974.6	1254	2.2	30	9.1	0.226
7977.4	1253.5	4.8	30	9.35	0.249
7982.9	1252.7	0.2	40	9.17	0.241

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

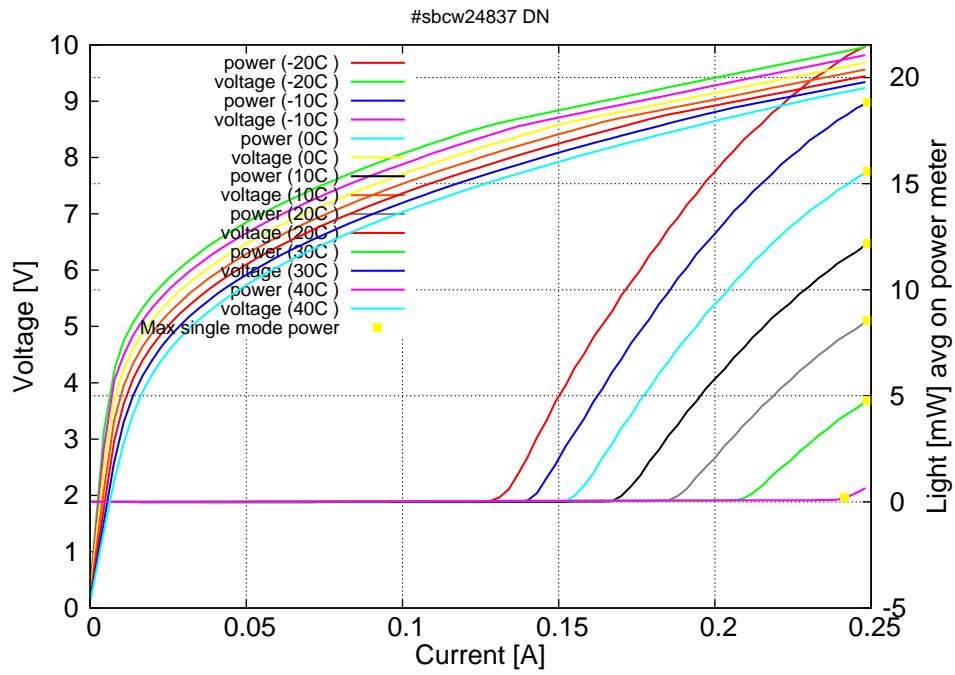


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.13A$ / $V_{th}=8.6V$ (2-wires measurements). Maximum operation current: 0.25A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

