

Datasheet for #sbcw24931 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.

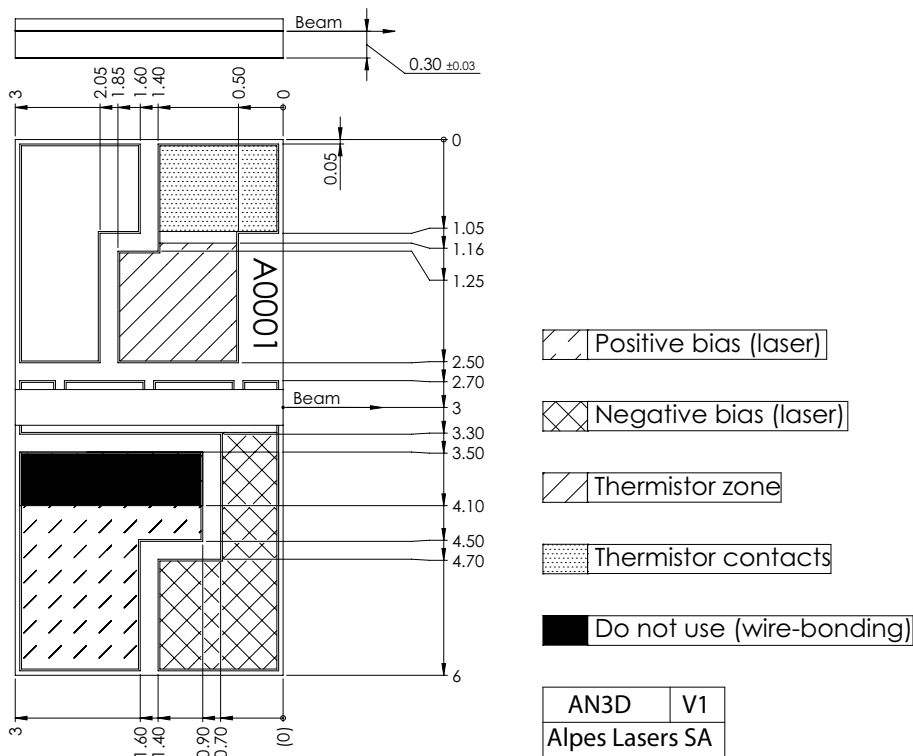


Figure 1: Mechanical and electrical interface for #sbcw24931 DN (please note that AlN submount numbering is P2766)

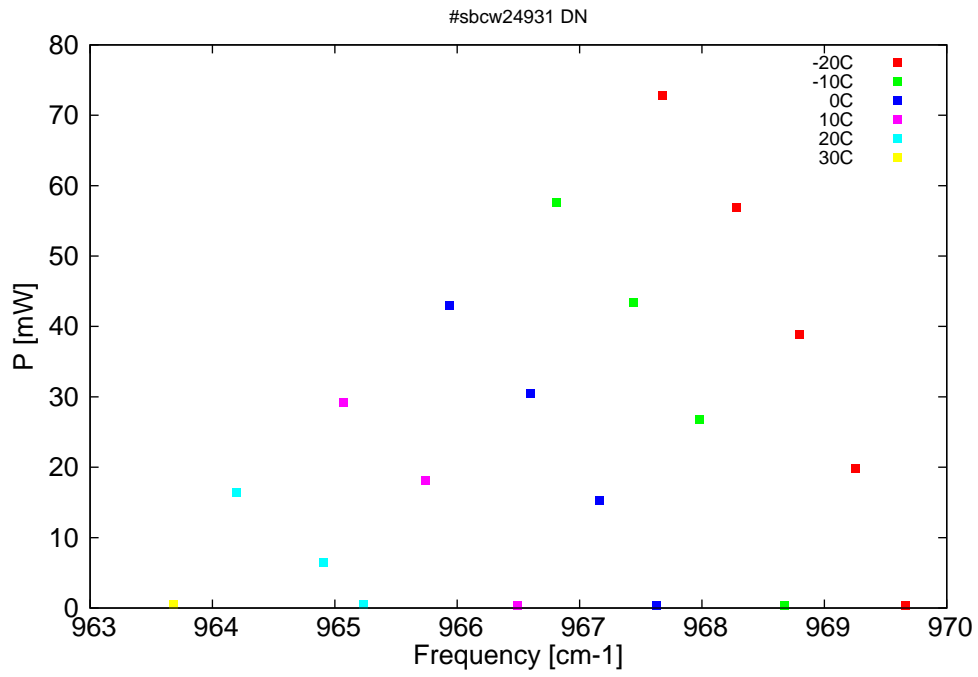


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

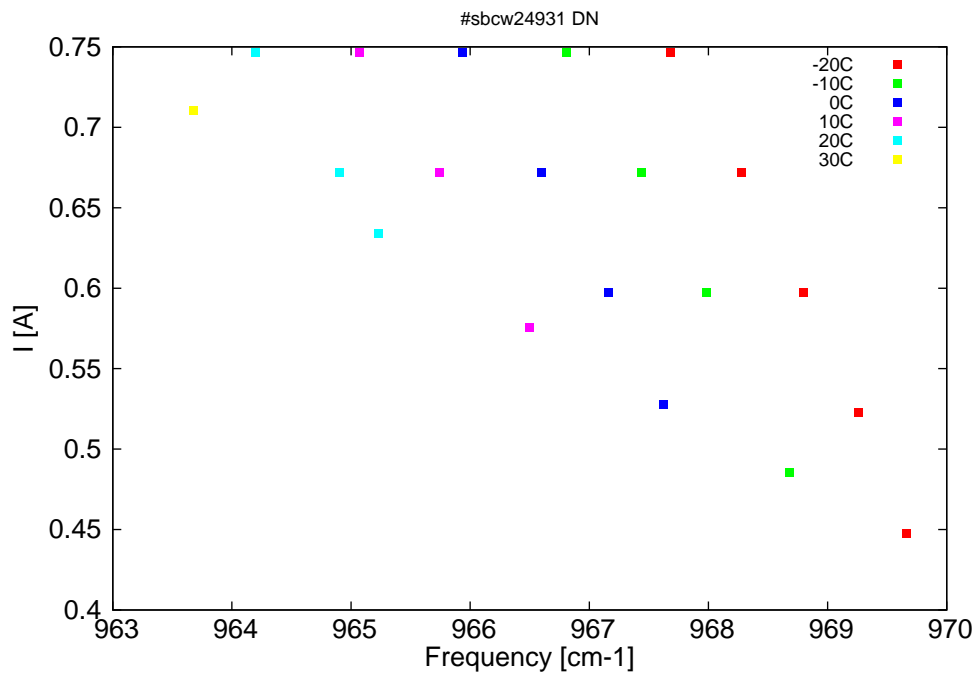


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
10312.8	969.7	0.4	-20	8.22	0.448
10317.2	969.3	19.8	-20	8.53	0.523
10322.1	968.8	38.8	-20	8.85	0.597
10327.6	968.3	56.9	-20	9.19	0.672
10334	967.7	72.9	-20	9.57	0.747
10323.3	968.7	0.3	-10	8.34	0.486
10330.8	968	26.7	-10	8.83	0.597
10336.6	967.4	43.4	-10	9.18	0.672
10343.3	966.8	57.6	-10	9.58	0.747
10334.6	967.6	0.4	0	8.5	0.528
10339.5	967.2	15.3	0	8.82	0.597
10345.6	966.6	30.5	0	9.18	0.672
10352.6	965.9	43	0	9.59	0.747
10346.7	966.5	0.4	10	8.71	0.576
10354.7	965.7	18.1	10	9.18	0.672
10362	965.1	29.3	10	9.6	0.747
10360.2	965.2	0.4	20	8.99	0.634
10363.7	964.9	6.4	20	9.19	0.672
10371.3	964.2	16.3	20	9.61	0.747
10376.9	963.7	0.5	30	9.41	0.711

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

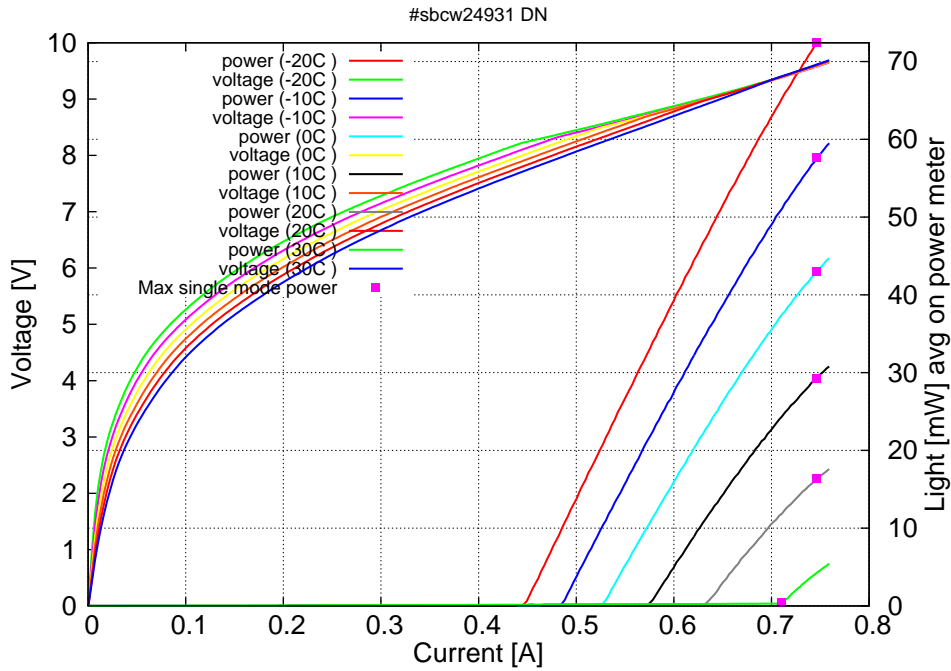


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.44A$ / $V_{th}=8.2V$ (2-wires measurements). Maximum operation current: 0.760A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

