

Datasheet for #sbcw24935 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.

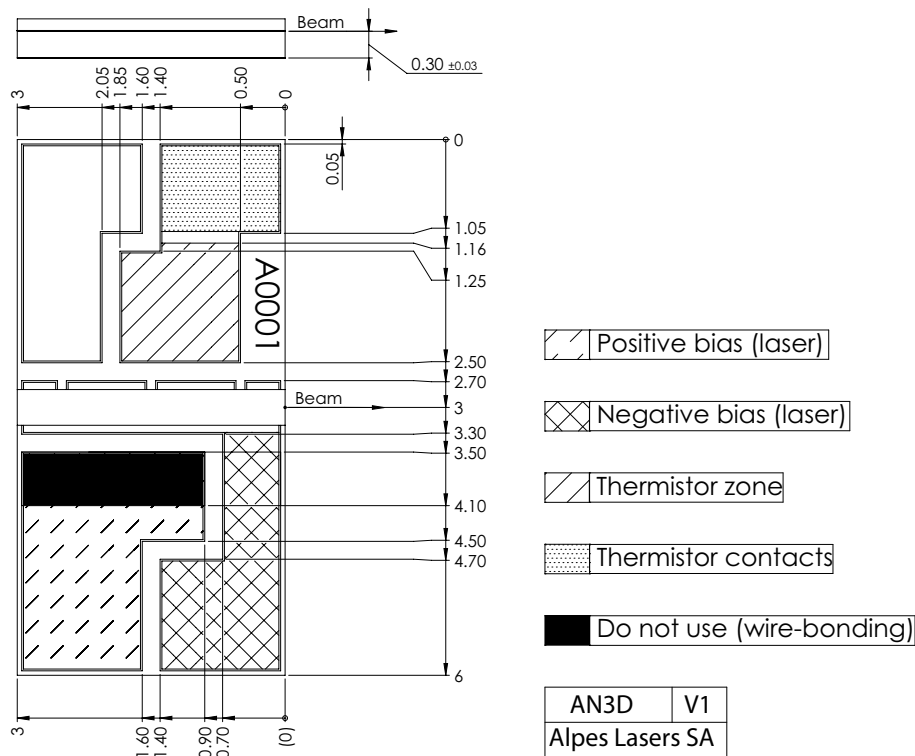


Figure 1: Mechanical and electrical interface for #sbcw24935 DN (please note that AlN submount numbering is P2812)

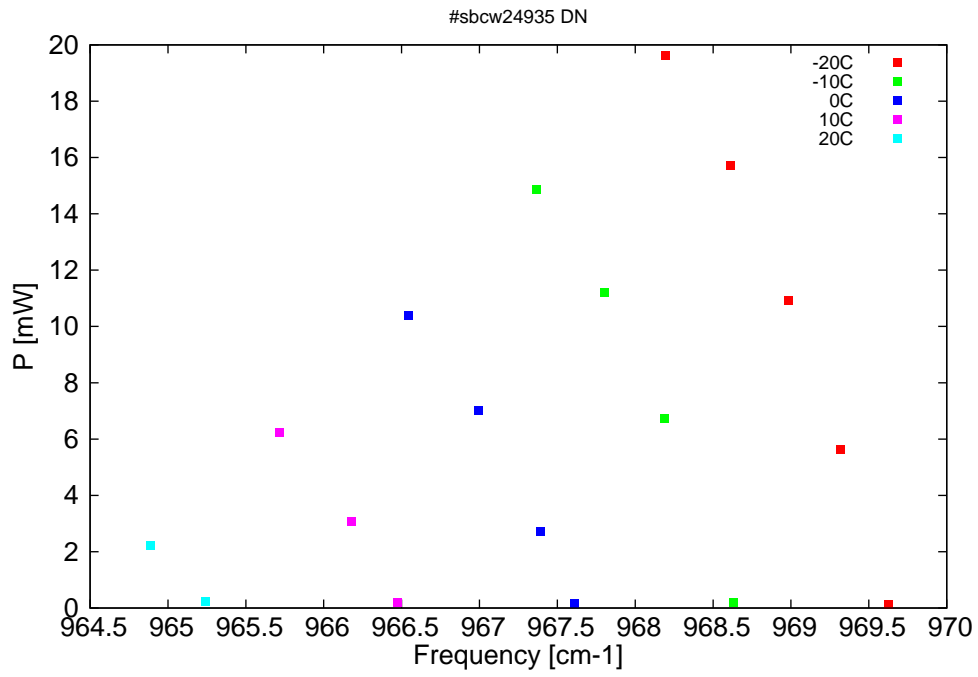


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

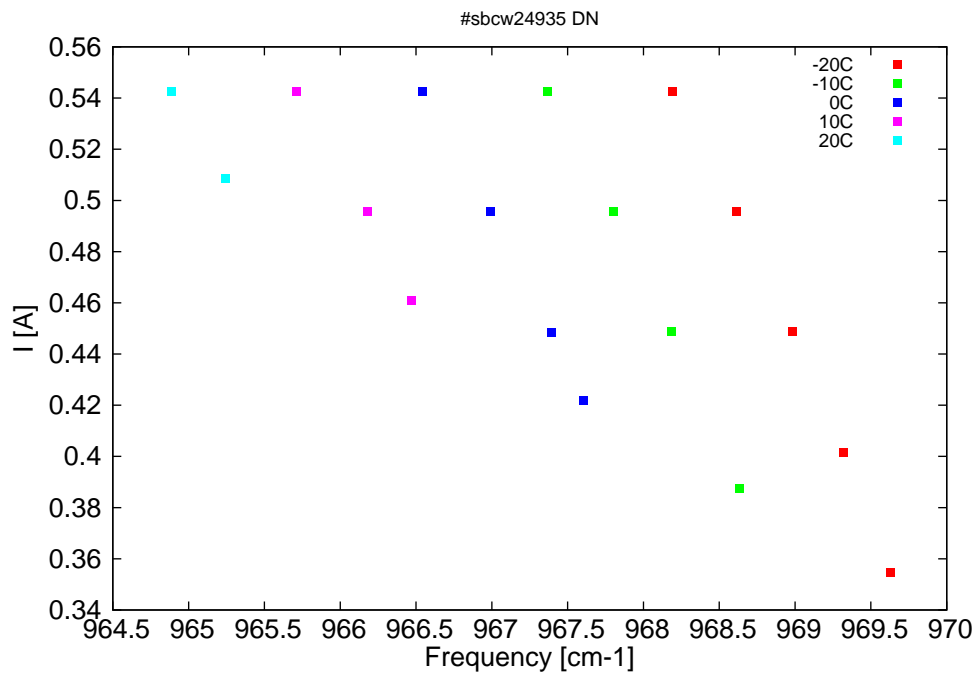


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
10313.2	969.6	0.1	-20	8.67	0.355
10316.5	969.3	5.6	-20	8.96	0.402
10320.1	969	10.9	-20	9.28	0.449
10324.1	968.6	15.7	-20	9.61	0.496
10328.5	968.2	19.6	-20	9.97	0.543
10323.9	968.6	0.2	-10	8.85	0.387
10328.6	968.2	6.7	-10	9.27	0.449
10332.7	967.8	11.2	-10	9.61	0.496
10337.3	967.4	14.9	-10	9.98	0.543
10334.8	967.6	0.2	0	9.07	0.422
10337	967.4	2.7	0	9.26	0.449
10341.3	967	7	0	9.61	0.496
10346.2	966.5	10.4	0	9.99	0.543
10346.9	966.5	0.2	10	9.35	0.461
10350	966.2	3.1	10	9.62	0.496
10355	965.7	6.2	10	10	0.543
10360.1	965.2	0.2	20	9.73	0.509
10363.9	964.9	2.2	20	10.01	0.543

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

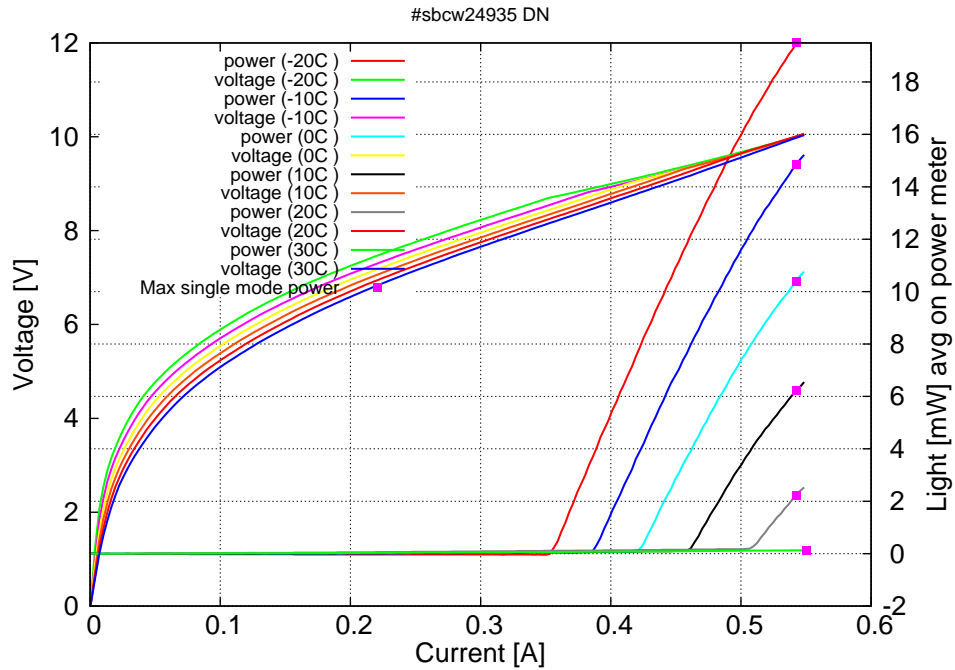


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.35A$ / $V_{th}=8.6V$ (2-wires measurements). Maximum operation current: 0.550A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

