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Datasheet for #sb25931 DN

Recommendations:

Please read the User Manual and have a look at the FAQ at
`https://www.alpeslasers.ch/resources/#faq`

WARNING: Operating the laser with longer pulses, higher repetition rate, higher voltage or higher current than specified in this document may cause damage. It will result in loss of warranty, unless agreed upon with Alpes Lasers!

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.

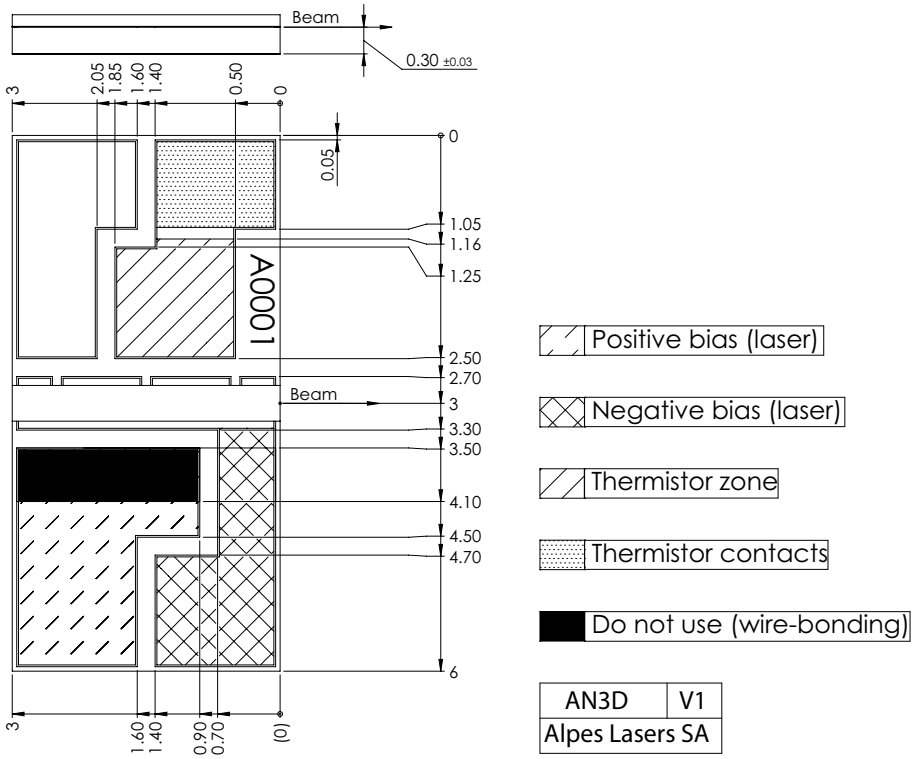

Figure 1: Mechanical and electrical interface for #sb25931 DN (please note that AlN submount numbering is P4149)

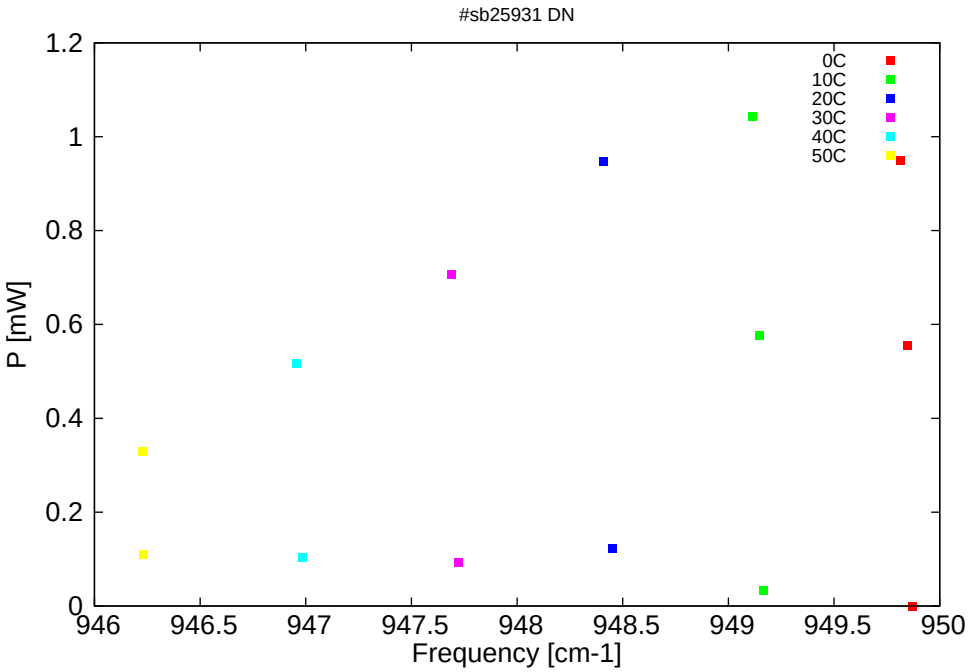

Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

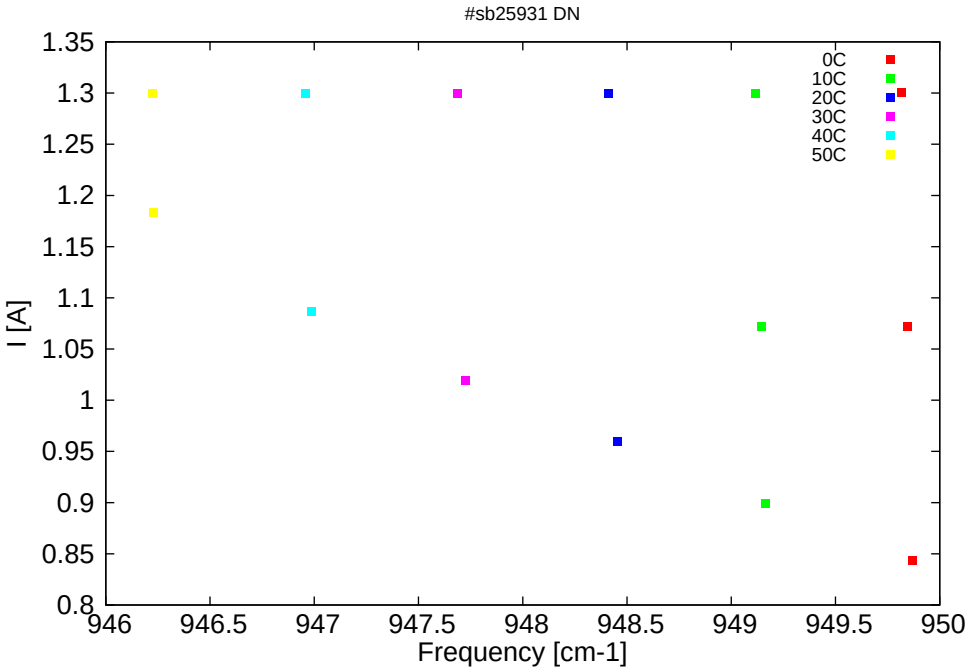

Figure 3: Peak current as a function of singlemode emission frequencies and temperatures

λ[nm]	ν[cm^{-1}]	P[mW]	Temp[°C]	U$_{pulse}$[V]	I$_{pulse}$[A]
10527.7	949.9	0	0	9.82	0.844
10528	949.8	0.6	0	10.86	1.072
10528.4	949.8	1	0	12.26	1.301
10535.6	949.2	0	10	10.02	0.899
10535.8	949.1	0.6	10	10.84	1.072
10536.1	949.1	1	10	12.21	1.3
10543.5	948.5	0.1	20	10.27	0.96
10544	948.4	0.9	20	12.17	1.3
10551.6	947.7	0.1	30	10.53	1.019
10552	947.7	0.7	30	12.15	1.3
10559.8	947	0.1	40	10.86	1.087
10560.1	947	0.5	40	12.11	1.3
10568.2	946.2	0.1	50	11.23	1.183
10568.3	946.2	0.3	50	11.45	1.3

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

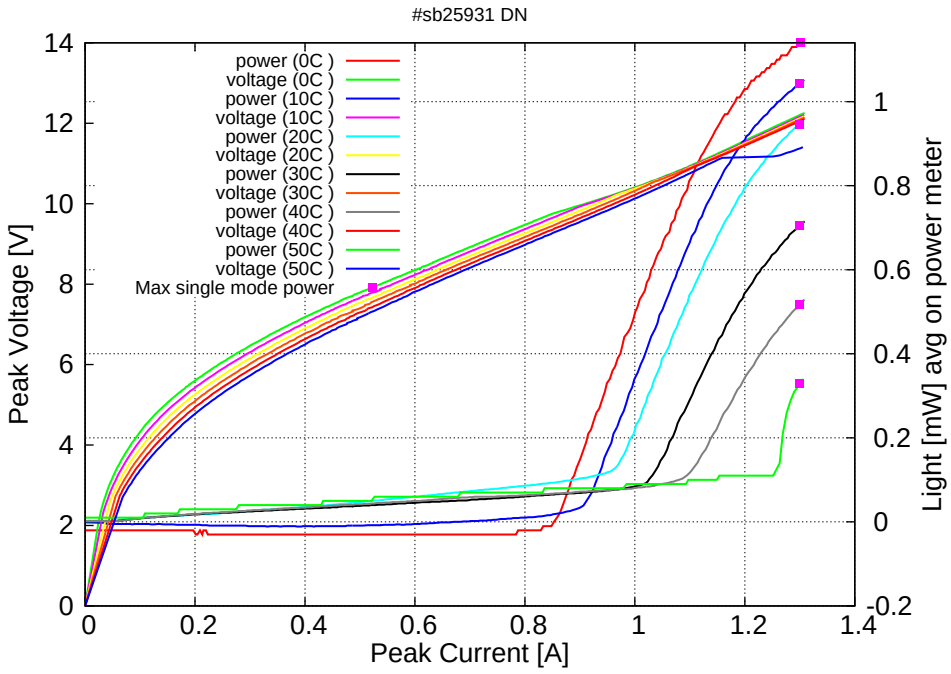

Figure 4: Peak voltage and average power vs peak current at 2% duty-cycle (500ns pulses on the laser) (the solid squares indicate the maximum singlemode emitted power)

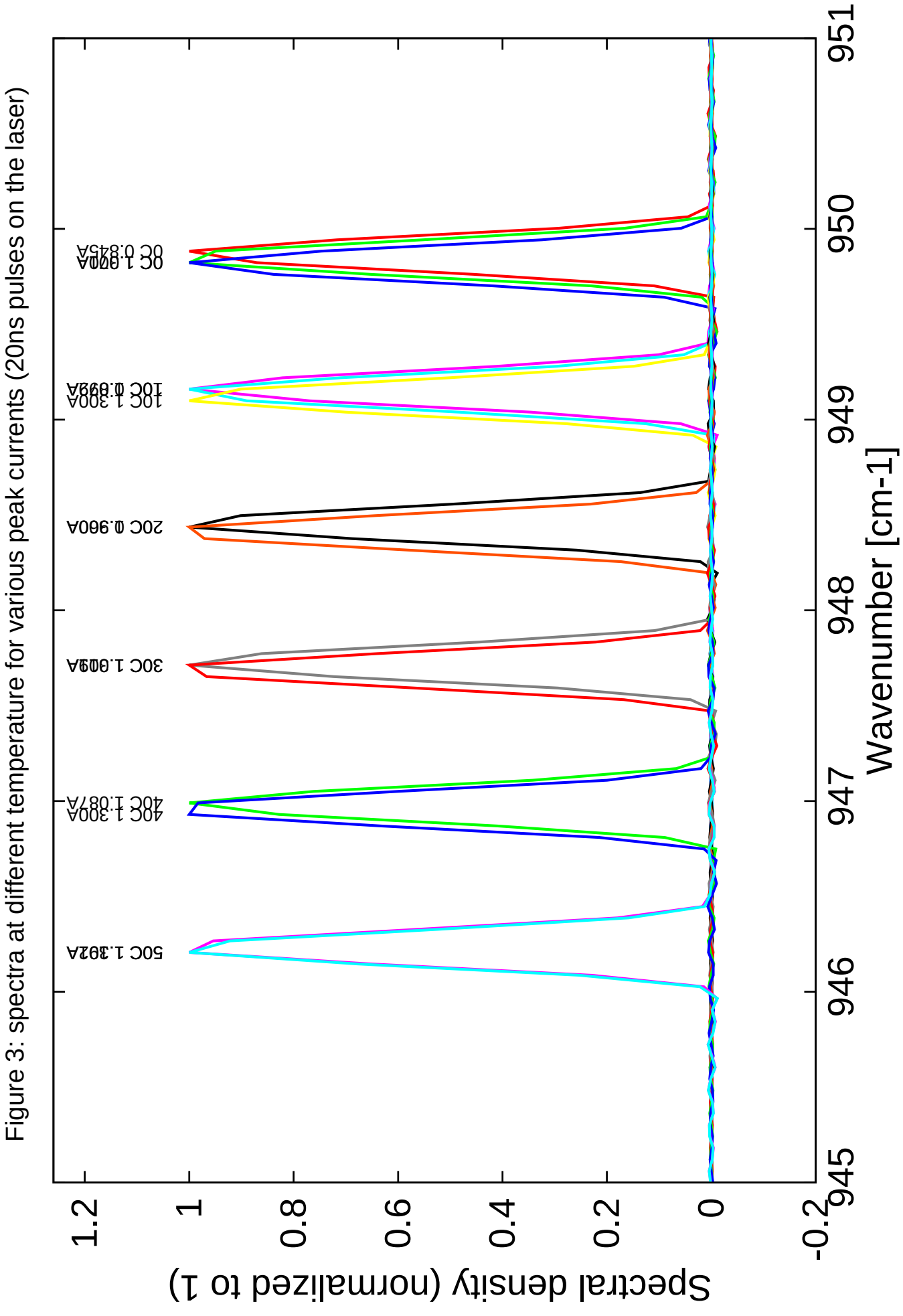

Figure 3: spectra at different temperature for various peak currents (20ns pulses on the laser)