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Datasheet for #sb11452 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 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 on the laser contact (= bonding pad, corresponding to the label "laser" on the LLH) and the positive bias on the base contact (= submount, corresponding to the label "base" on the LLH).

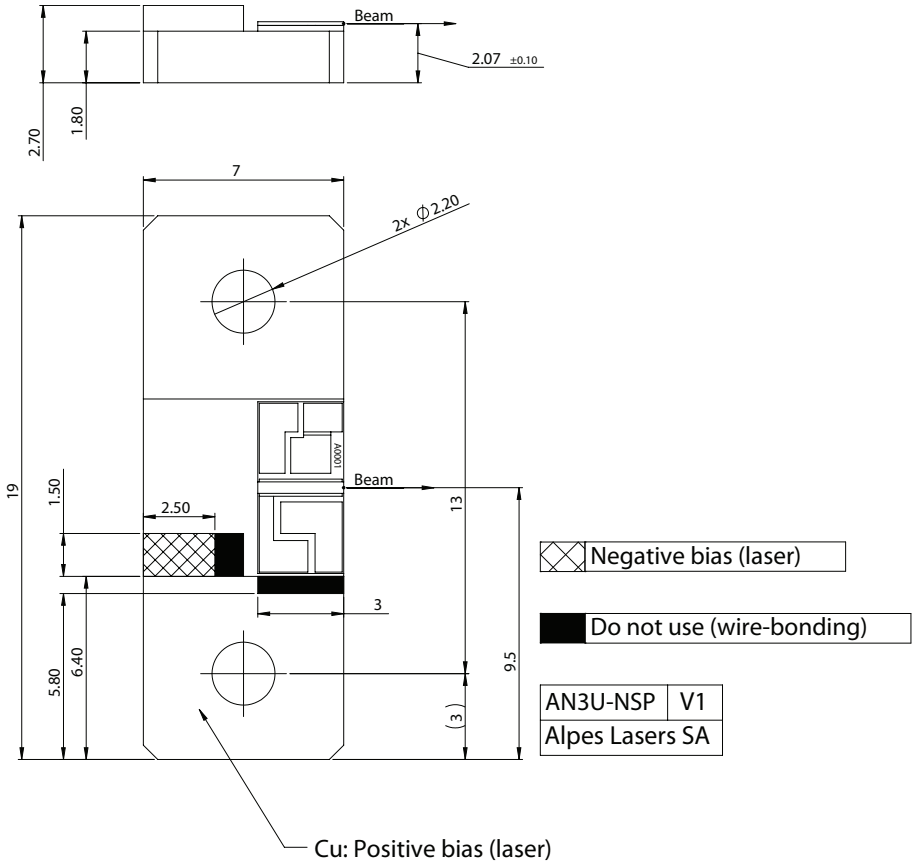

Figure 1: Mechanical and electrical interface for #sb11452 DN

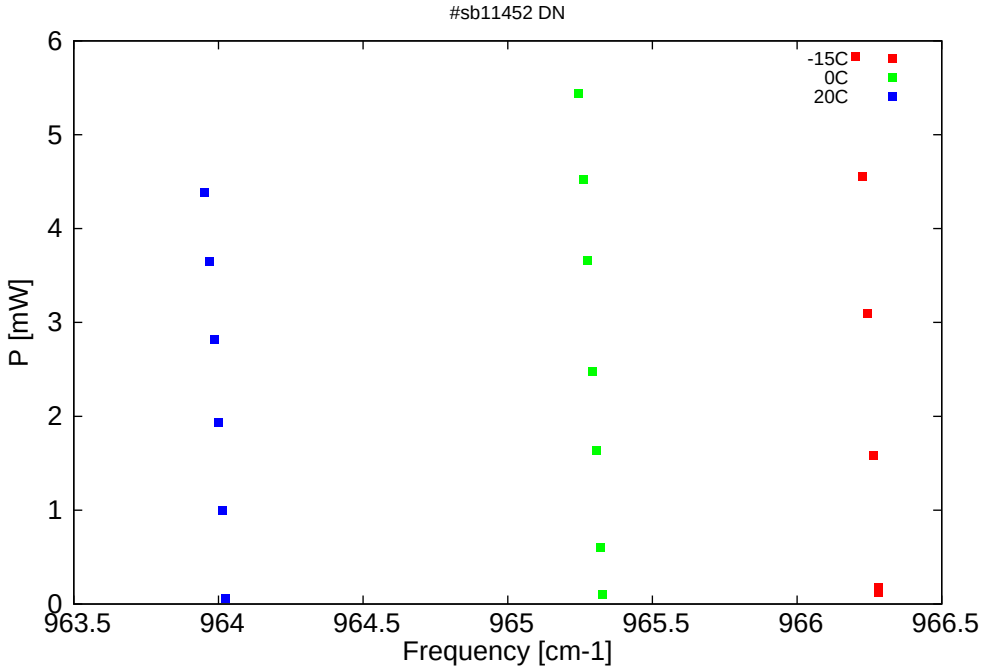

Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

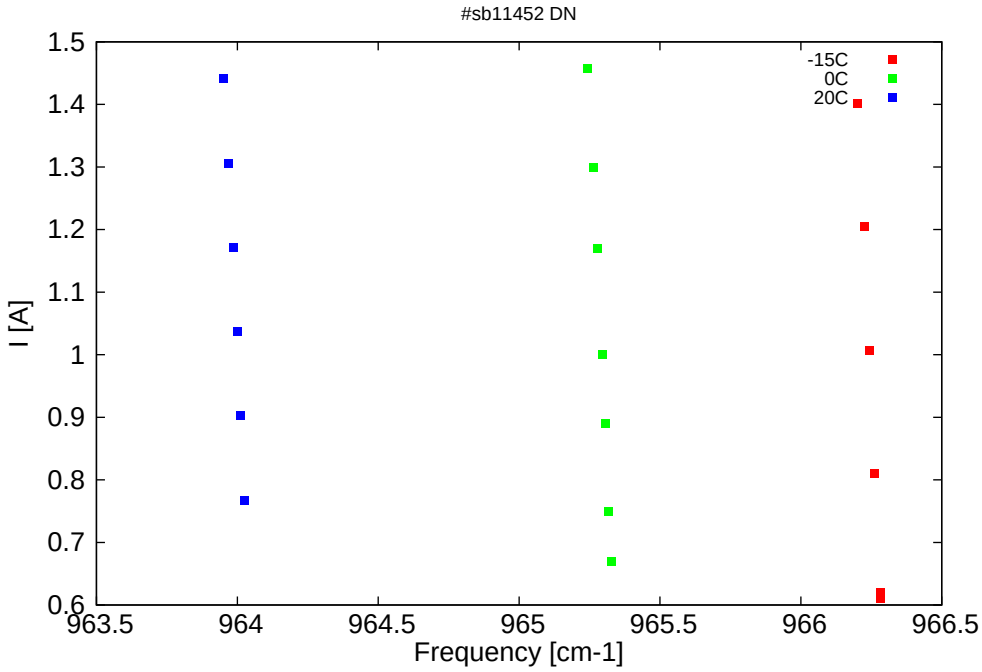

Figure 3: Peak current as a function of singlemode emission frequencies and temperatures

λ[nm]	ν[cm^{-1}]	P[mW]	Temp[°C]	U$_{pulse}$[V]	I$_{pulse}$[A]
10348.9	966.3	0.1	-15	8.41	0.611
10349	966.3	0.2	-15	8.44	0.621
10349.1	966.3	1.6	-15	8.97	0.81
10349.4	966.2	3.1	-15	9.47	1.007
10349.6	966.2	4.6	-15	9.99	1.205
10349.8	966.2	5.8	-15	10.53	1.402
10359.2	965.3	0.1	0	8.51	0.67
10359.3	965.3	0.6	0	8.74	0.75
10359.4	965.3	1.6	0	9.12	0.89
10359.5	965.3	2.5	0	9.42	1
10359.7	965.3	3.7	0	9.88	1.17
10359.9	965.3	4.5	0	10.24	1.3
10360.1	965.2	5.4	0	10.68	1.457
10373.2	964	0.1	20	8.73	0.767
10373.3	964	1	20	9.12	0.902
10373.4	964	1.9	20	9.49	1.037
10373.6	964	2.8	20	9.87	1.172
10373.8	964	3.6	20	10.26	1.306
10374	964	4.4	20	10.68	1.442

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

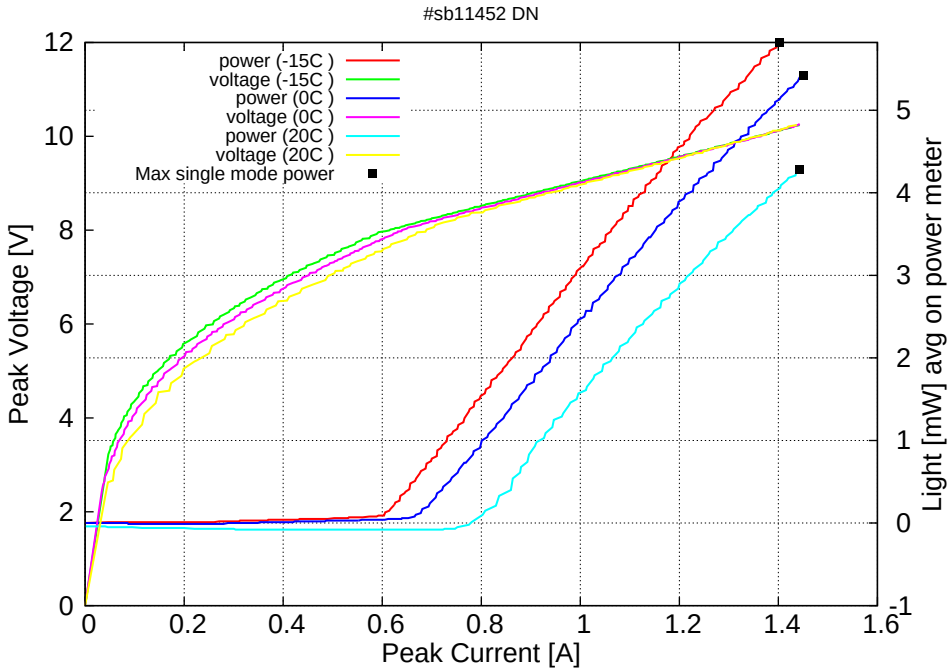

Figure 4: Peak voltage and average power vs peak current at 2% duty-cycle (200ns pulses on the laser) (the solid squares indicate the maximum singlemode emitted power)

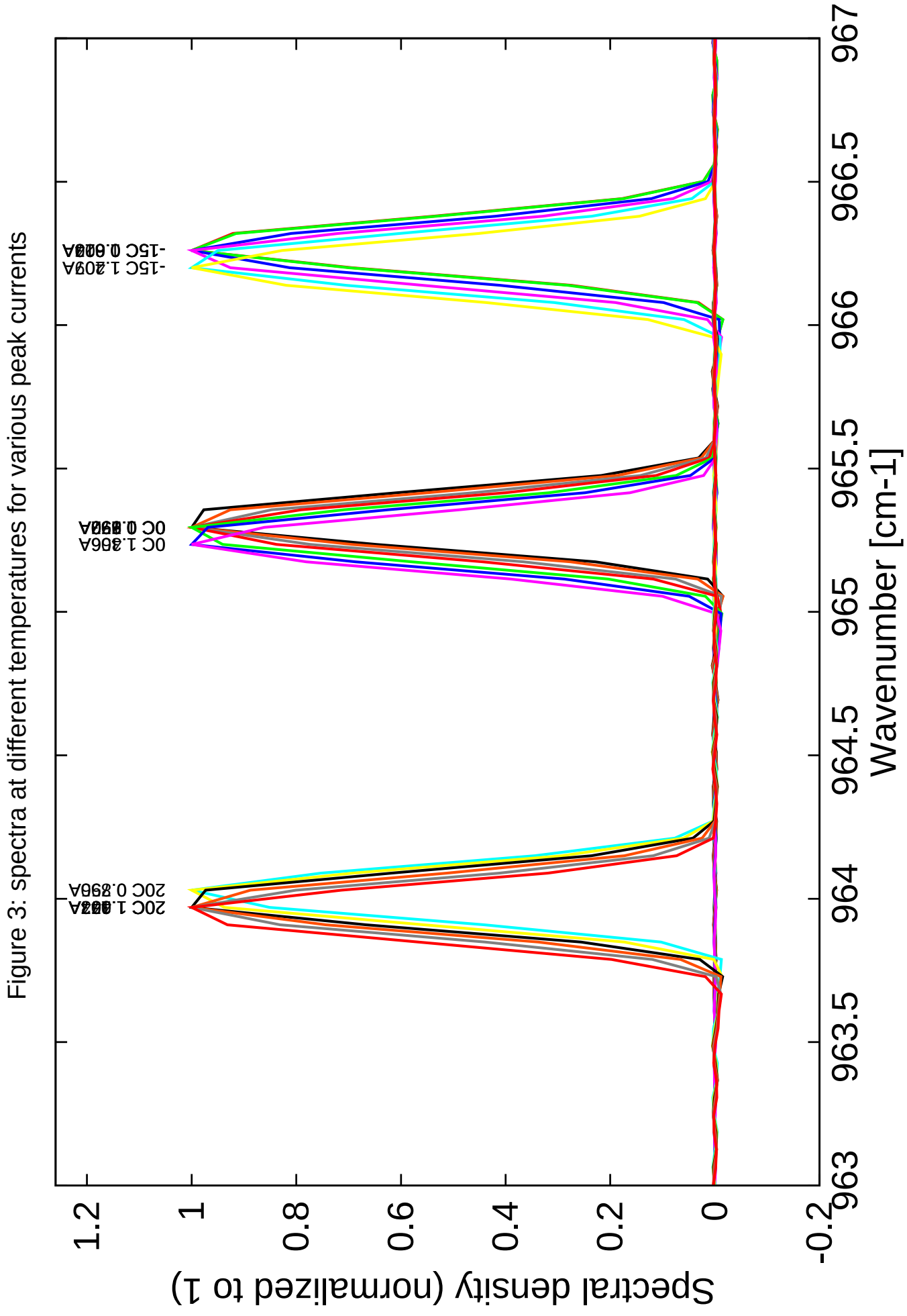

Figure 3: spectra at different temperatures for various peak currents