

Datasheet for #sbcw25892 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 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.

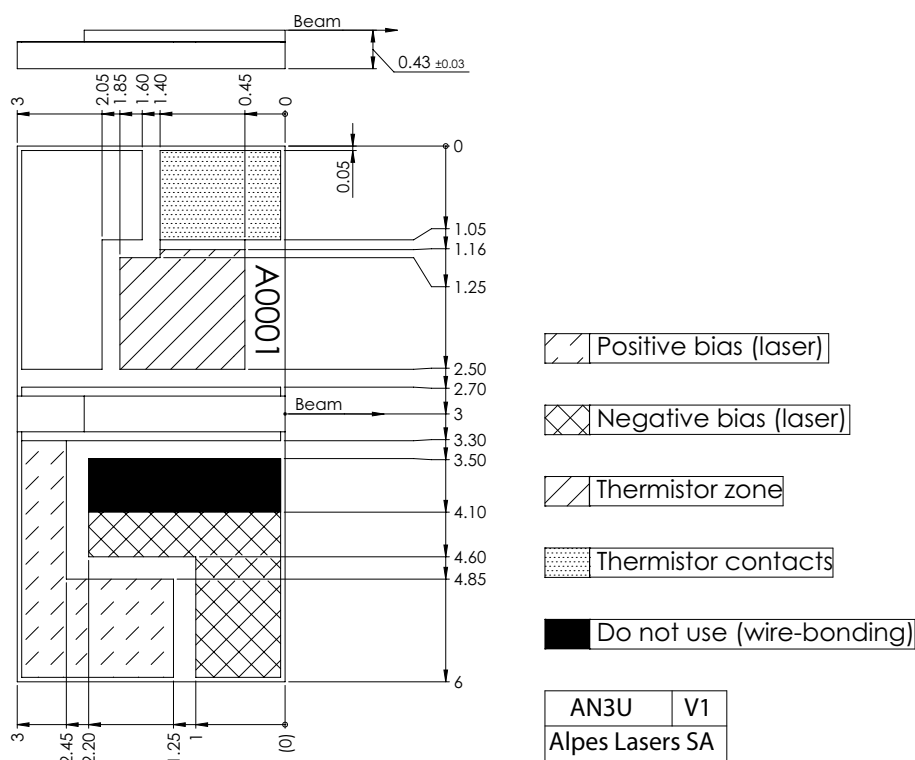


Figure 1: Mechanical and electrical interface for #sbcw25892 DN (please note that AlN submount numbering is A0WJW)

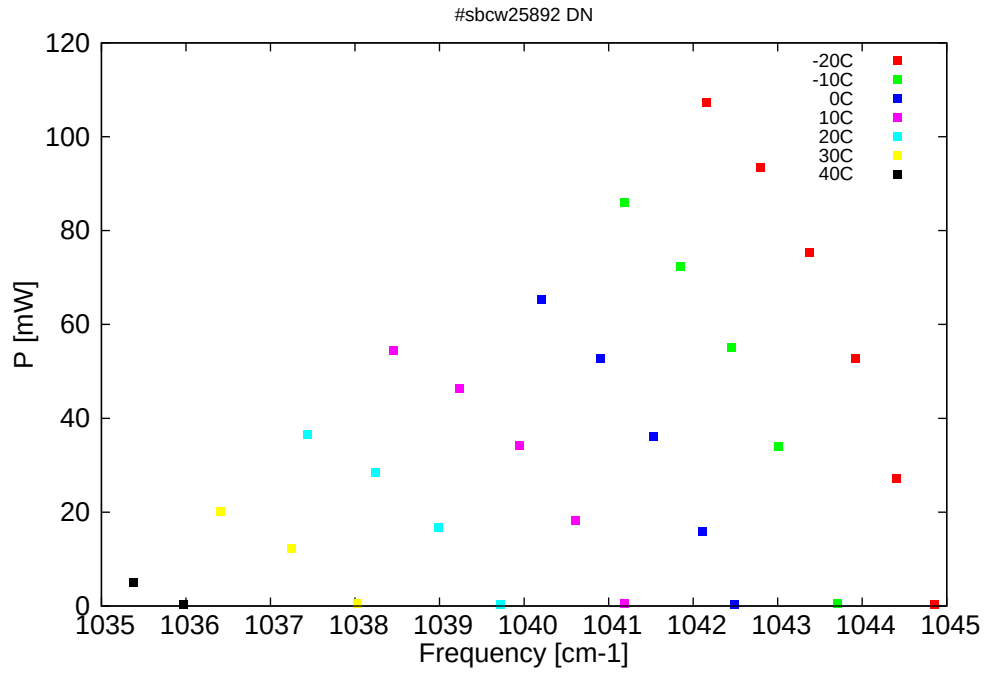


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

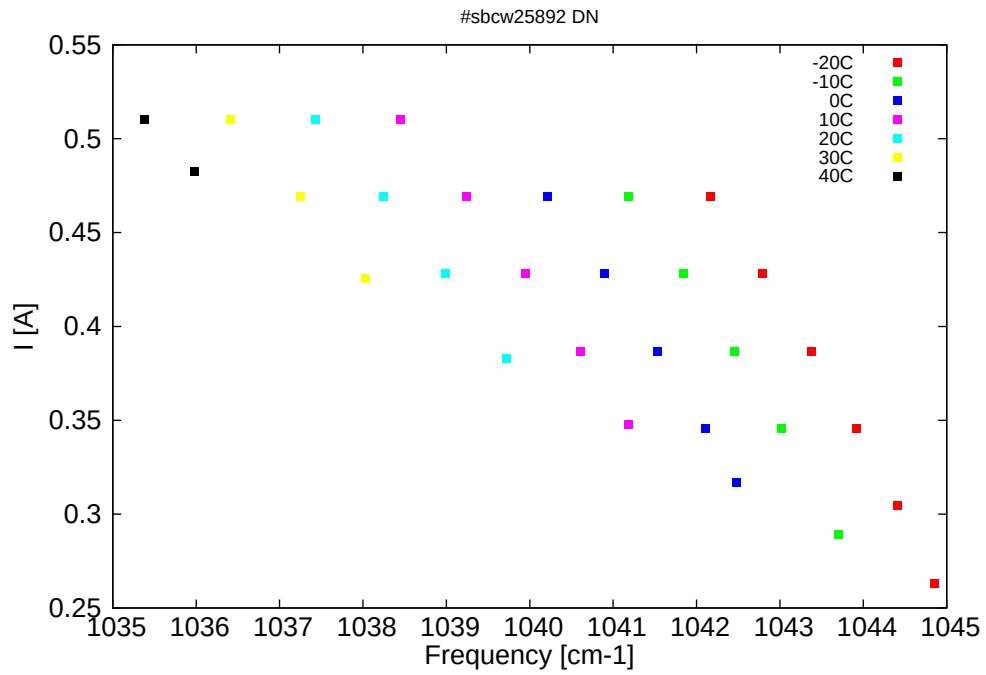


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
9570.7	1044.9	0.3	-20	9.5	0.263
9574.8	1044.4	27.1	-20	9.87	0.304
9579.3	1043.9	52.8	-20	10.21	0.346
9584.2	1043.4	75.2	-20	10.55	0.387
9589.6	1042.8	93.5	-20	10.89	0.428
9595.4	1042.2	107.2	-20	11.22	0.469
9581.2	1043.7	0.6	-10	9.65	0.289
9587.6	1043	34.1	-10	10.13	0.346
9592.7	1042.5	55.1	-10	10.28	0.387
9598.3	1041.8	72.4	-10	10.59	0.428
9604.4	1041.2	85.9	-10	10.89	0.469
9592.5	1042.5	0.4	0	9.8	0.317
9595.9	1042.1	15.9	0	10.05	0.346
9601.3	1041.5	36.1	0	10.4	0.387
9607.1	1040.9	52.7	0	10.73	0.428
9613.4	1040.2	65.3	0	11.05	0.469
9604.4	1041.2	0.5	10	9.96	0.348
9609.8	1040.6	18.2	10	10.3	0.387
9615.9	1039.9	34.2	10	10.64	0.428
9622.5	1039.2	46.4	10	10.97	0.469
9629.7	1038.5	54.5	10	11.31	0.51
9617.9	1039.7	0.3	20	10.16	0.383
9624.7	1039	16.6	20	10.54	0.428
9631.6	1038.2	28.4	20	10.87	0.469
9639.1	1037.4	36.5	20	11.21	0.51
9633.6	1038	0.5	30	10.43	0.426
9640.9	1037.3	12.3	30	10.79	0.469
9648.7	1036.4	20.2	30	10.92	0.51
9652.7	1036	0.4	40	10.63	0.483
9658.3	1035.4	5.1	40	10.84	0.51

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

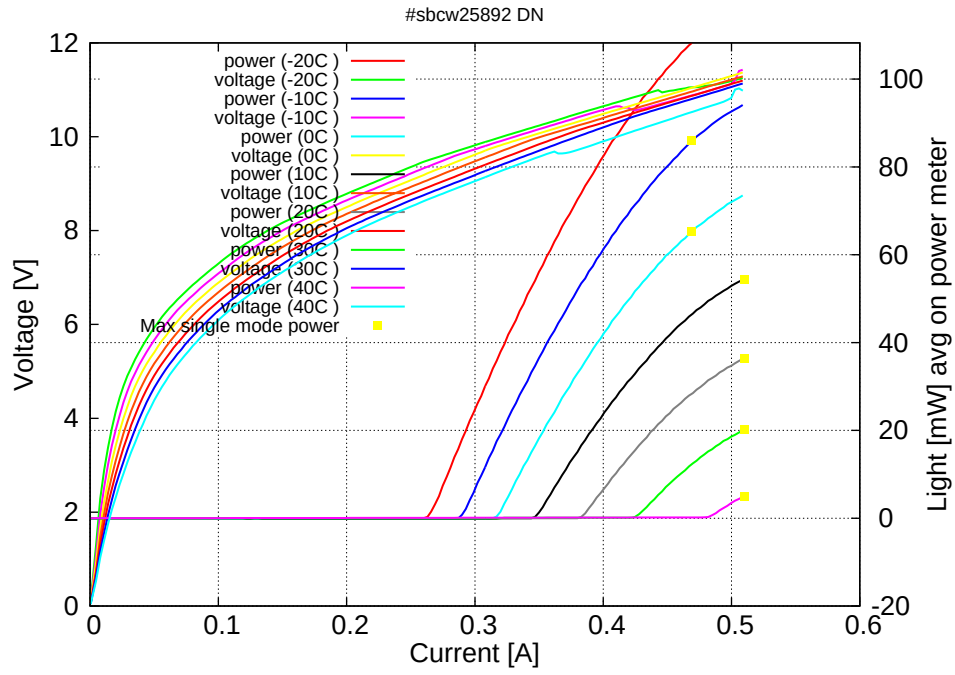


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.26A$ / $V_{th}=9.5V$ (2-wires measurements). Maximum operation current: 0.47A between -20C and 0C, 0.51A between 10C and 40C.

Figure 3: spectra at different temperatures for various DC currents

