

**Datasheet for #sbcw27608 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.

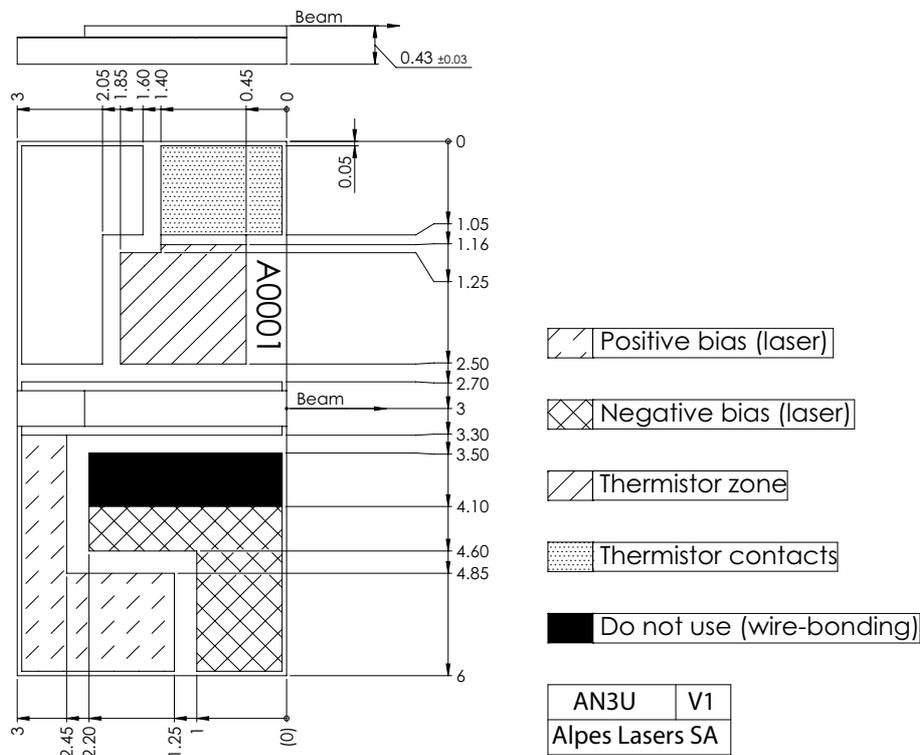


Figure 1: Mechanical and electrical interface for #sbcw27608 DN (please note that AlN submount numbering is A0X58)

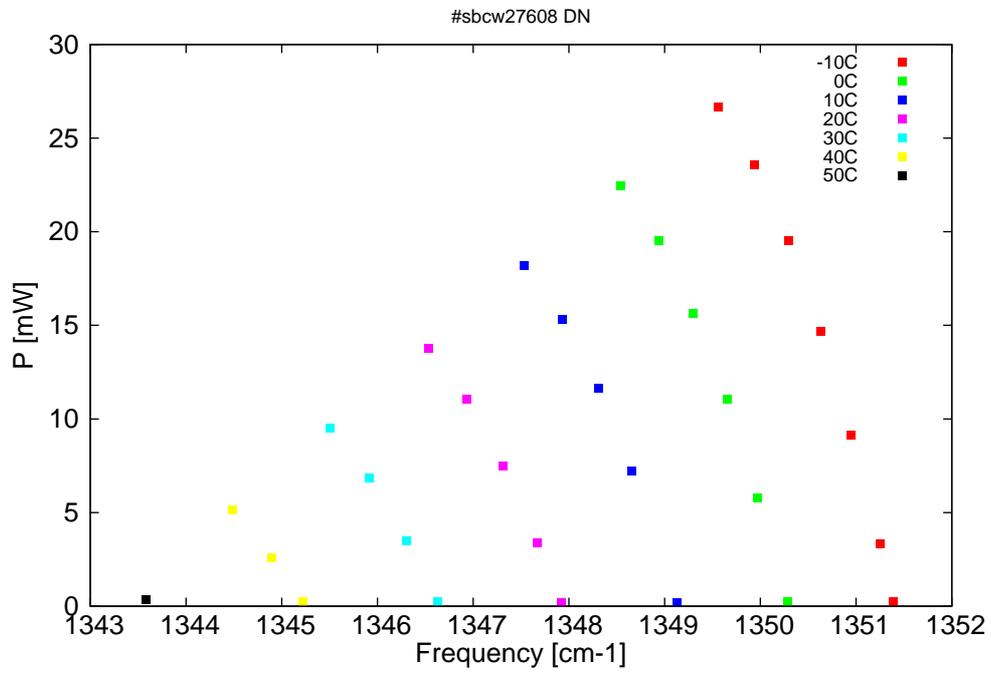


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

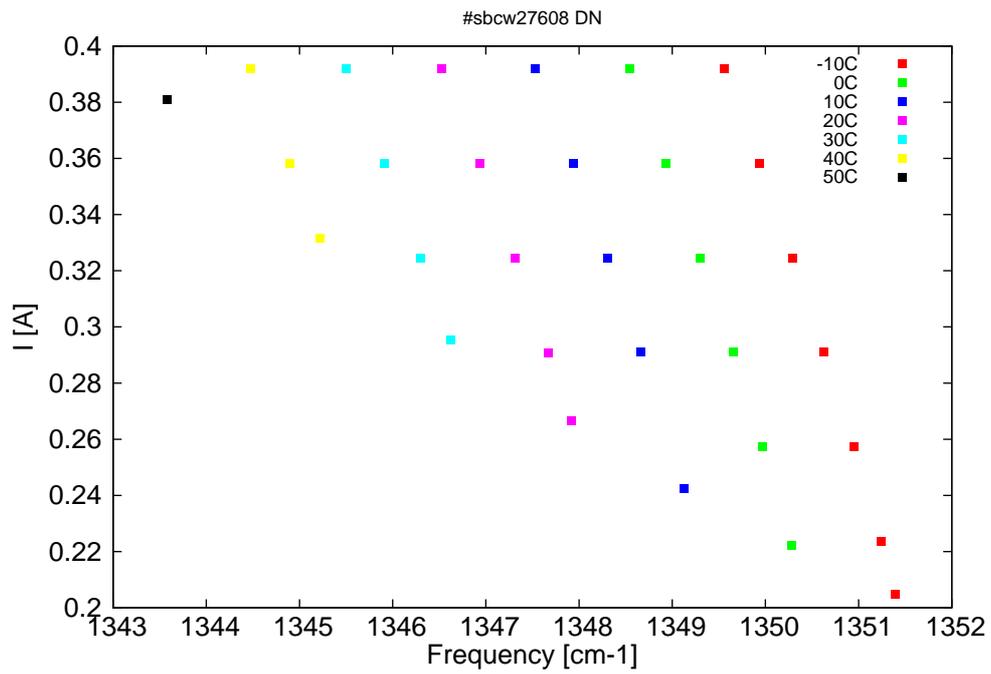


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
7399.8	1351.4	0.2	-10	8.76	0.205
7400.6	1351.2	3.3	-10	8.92	0.224
7402.2	1350.9	9.2	-10	9.19	0.257
7403.9	1350.6	14.7	-10	9.47	0.291
7405.8	1350.3	19.5	-10	9.74	0.325
7407.7	1349.9	23.6	-10	10.01	0.358
7409.8	1349.6	26.7	-10	10.29	0.392
7405.8	1350.3	0.2	0	8.86	0.222
7407.6	1350	5.8	0	9.18	0.257
7409.3	1349.7	11	0	9.44	0.291
7411.2	1349.3	15.6	0	9.71	0.325
7413.2	1348.9	19.5	0	9.98	0.358
7415.4	1348.5	22.5	0	10.24	0.392
7412.2	1349.1	0.2	10	8.9	0.243
7414.8	1348.7	7.2	10	9.31	0.291
7416.7	1348.3	11.6	10	9.58	0.325
7418.8	1347.9	15.3	10	9.85	0.358
7421	1347.5	18.2	10	10.12	0.392
7418.9	1347.9	0.2	20	9.02	0.267
7420.2	1347.7	3.4	20	9.23	0.291
7422.2	1347.3	7.5	20	9.49	0.325
7424.3	1346.9	11	20	9.75	0.358
7426.5	1346.5	13.8	20	10.02	0.392
7426	1346.6	0.2	30	9.18	0.295
7427.8	1346.3	3.5	30	9.42	0.325
7429.9	1345.9	6.9	30	9.68	0.358
7432.2	1345.5	9.5	30	9.94	0.392
7433.7	1345.2	0.2	40	9.38	0.332
7435.5	1344.9	2.6	40	9.59	0.358
7437.8	1344.5	5.2	40	9.84	0.392
7442.8	1343.6	0.3	50	9.64	0.381

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

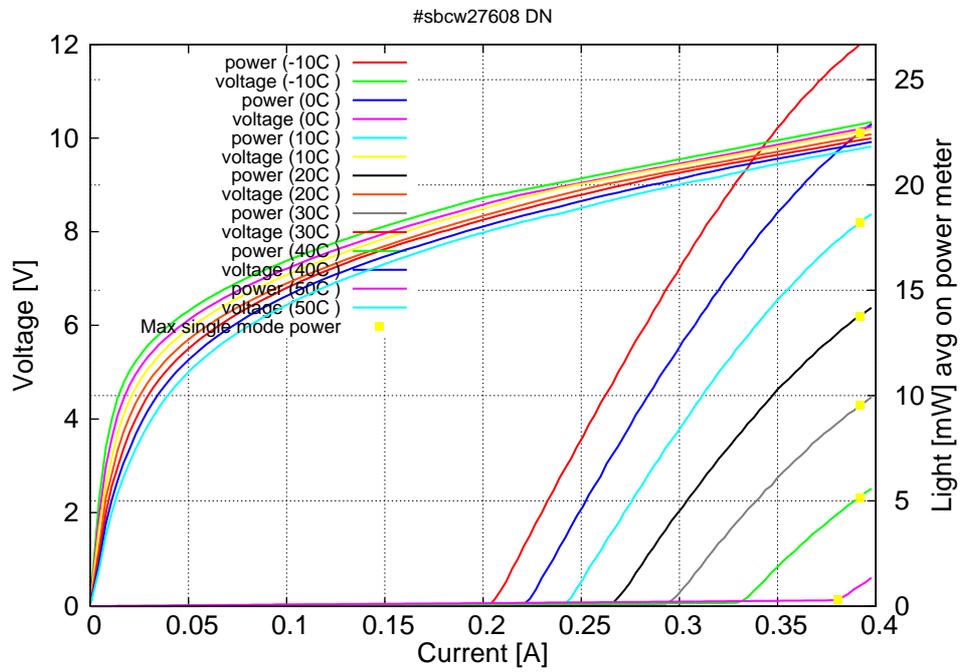


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.20A$  /  $V_{th}=8.7V$  (2-wires measurements). Maximum operation current: 0.40A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

