

Datasheet for #sbcw27611 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.

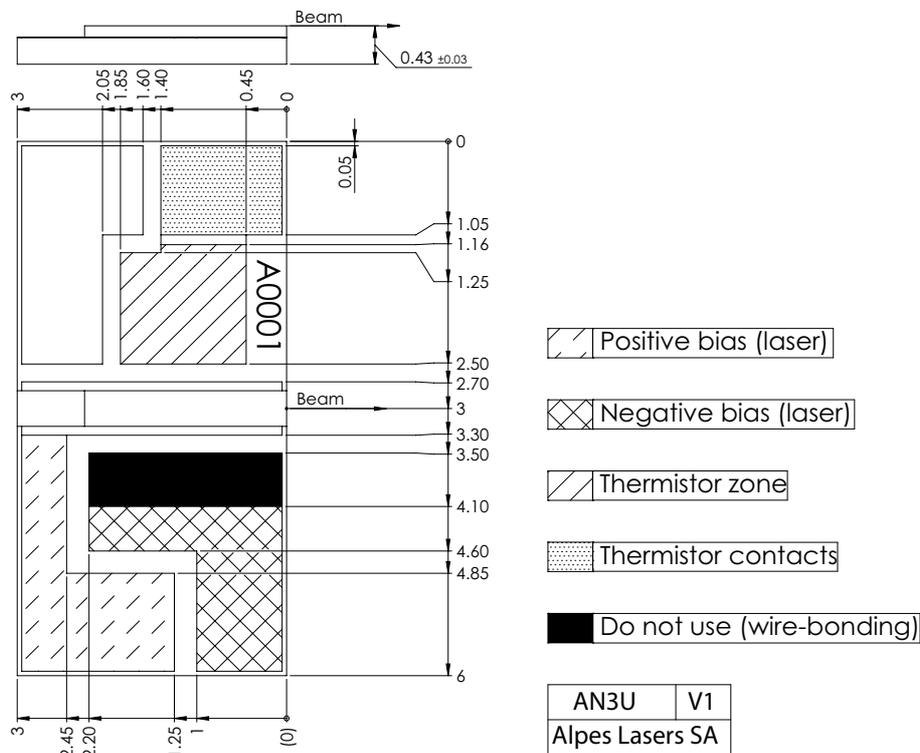


Figure 1: Mechanical and electrical interface for #sbcw27611 DN (please note that AlN submount numbering is A0ULG)

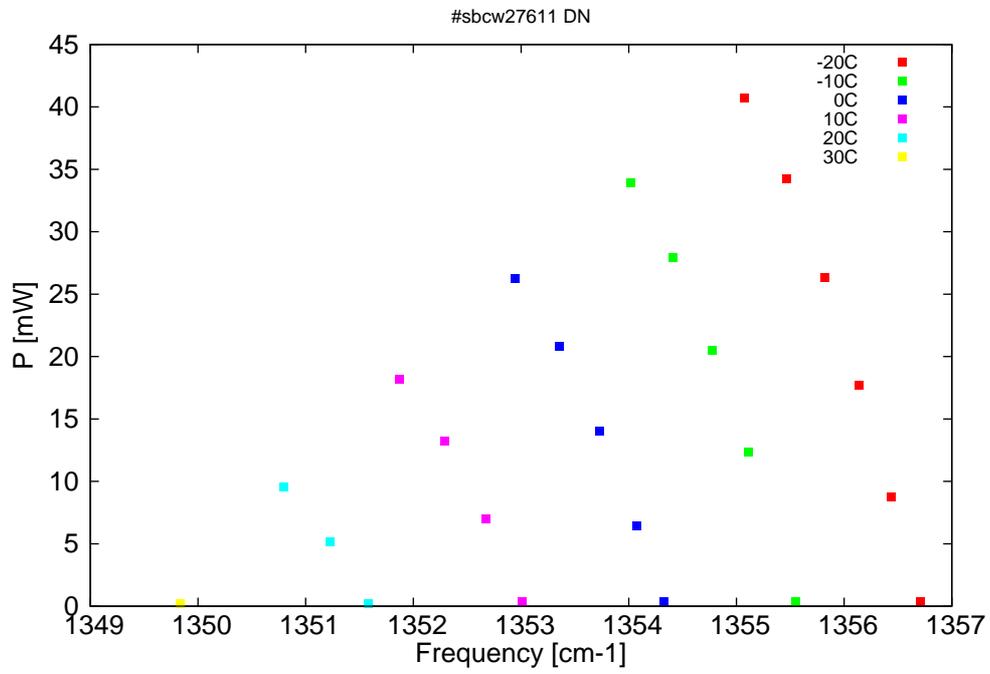


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

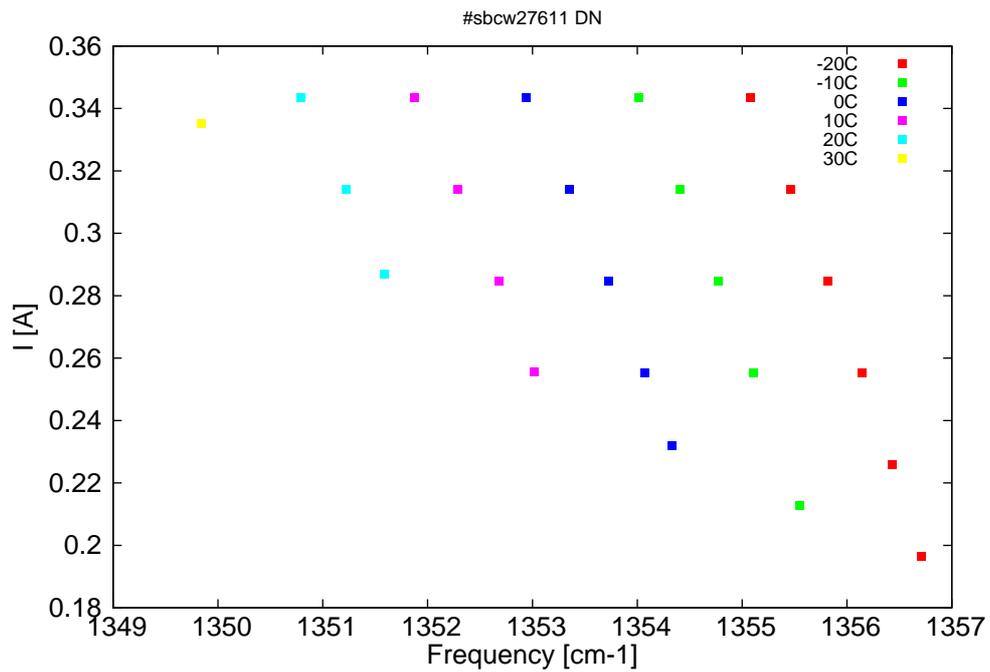


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
7370.8	1356.7	0.3	-20	8.9	0.196
7372.3	1356.4	8.8	-20	9.13	0.226
7373.9	1356.1	17.7	-20	9.38	0.255
7375.6	1355.8	26.3	-20	9.62	0.285
7377.5	1355.5	34.2	-20	9.87	0.314
7379.7	1355.1	40.7	-20	10.13	0.344
7377.1	1355.5	0.4	-10	8.93	0.213
7379.5	1355.1	12.3	-10	9.29	0.255
7381.3	1354.8	20.5	-10	9.53	0.285
7383.3	1354.4	28	-10	9.78	0.314
7385.4	1354	33.9	-10	10.04	0.344
7383.7	1354.3	0.4	0	9.01	0.232
7385.1	1354.1	6.4	0	9.21	0.255
7387	1353.7	14	0	9.46	0.285
7389.1	1353.4	20.9	0	9.7	0.314
7391.3	1352.9	26.2	0	9.97	0.344
7390.9	1353	0.3	10	9.14	0.256
7392.7	1352.7	7	10	9.39	0.285
7394.8	1352.3	13.2	10	9.64	0.314
7397.2	1351.9	18.1	10	9.91	0.344
7398.7	1351.6	0.2	20	9.37	0.287
7400.7	1351.2	5.1	20	9.6	0.314
7403.1	1350.8	9.6	20	9.86	0.344
7408.3	1349.8	0.2	30	9.72	0.335

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

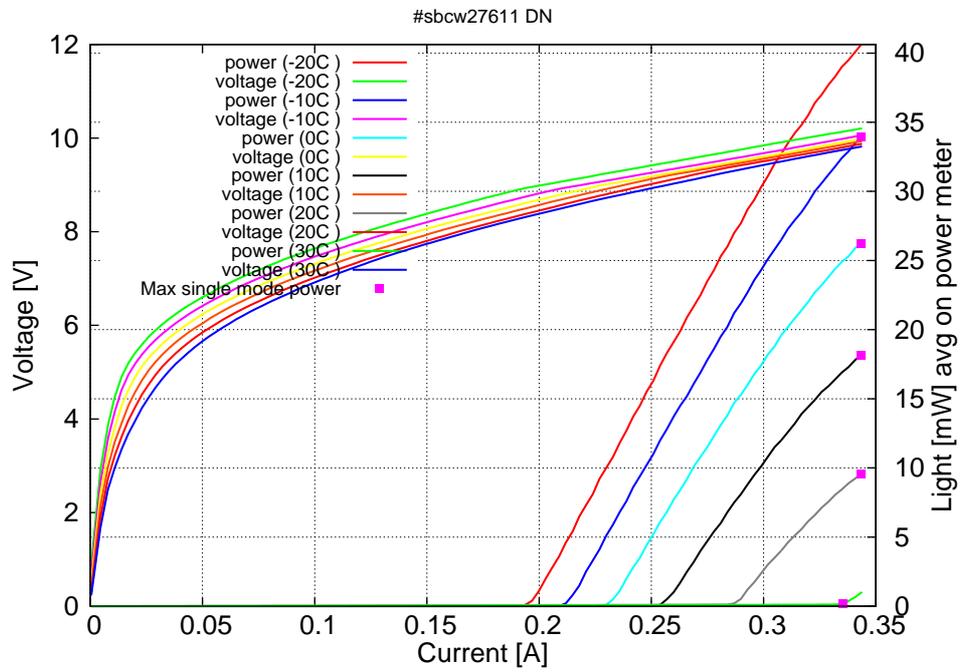


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.19A$ / $V_{th}=8.9V$ (2-wires measurements). Maximum operation current: 0.345A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

