

Datasheet for #sbcw27067 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.

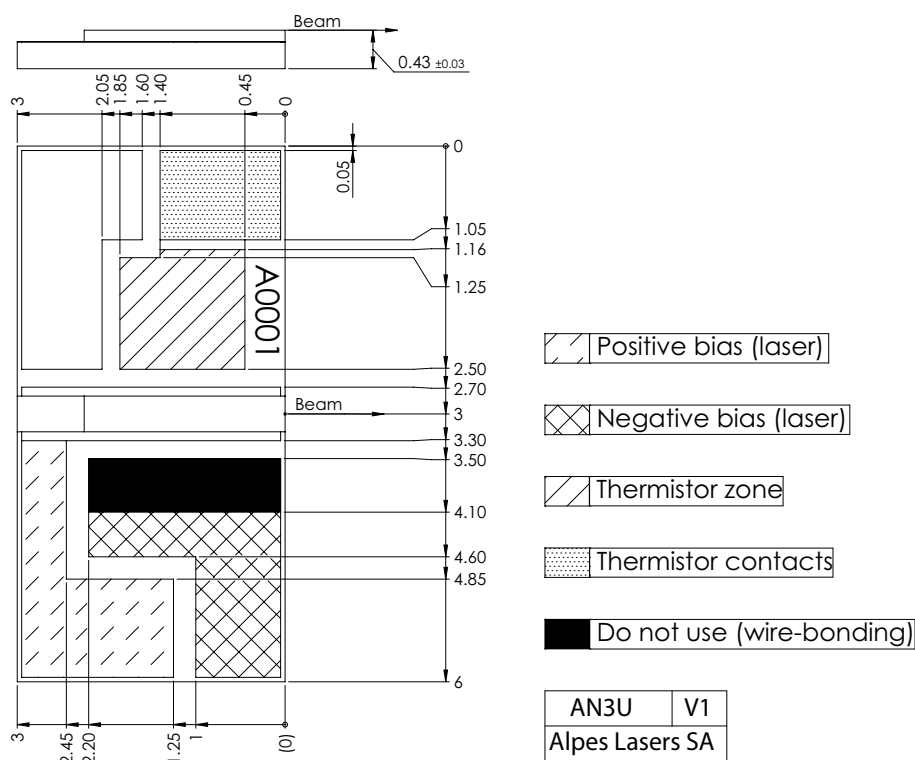


Figure 1: Mechanical and electrical interface for #sbcw27067 DN (please note that AlN submount numbering is A0XVL)

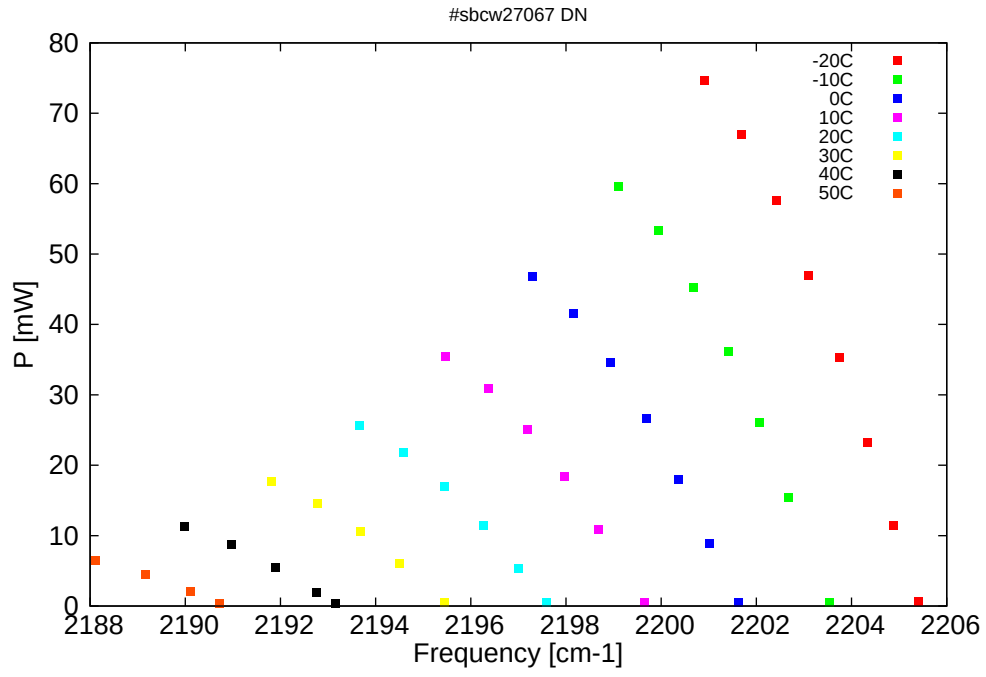


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

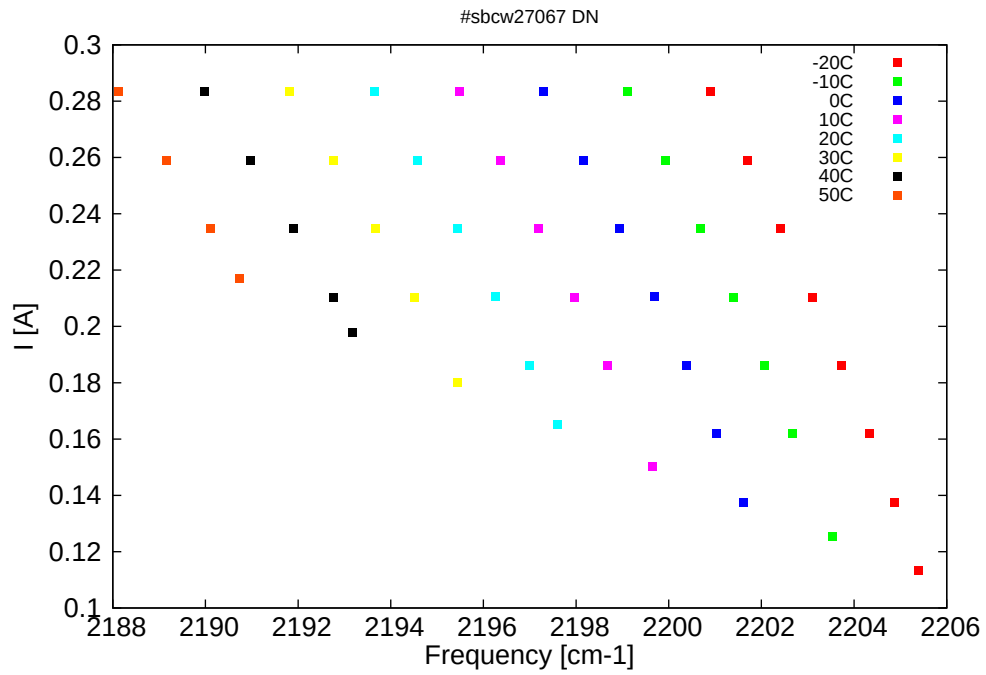


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
4534.3	2205.4	0.6	-20	8.25	0.113
4535.4	2204.9	11.4	-20	8.44	0.138
4536.5	2204.3	23.3	-20	8.63	0.162
4537.7	2203.7	35.3	-20	8.81	0.186
4539.1	2203.1	47	-20	9	0.21
4540.5	2202.4	57.7	-20	9.18	0.235
4542	2201.7	67	-20	9.36	0.259
4543.6	2200.9	74.6	-20	9.55	0.283
4538.2	2203.5	0.6	-10	8.3	0.125
4539.9	2202.7	15.4	-10	8.58	0.162
4541.2	2202.1	26	-10	8.77	0.186
4542.6	2201.4	36.1	-10	8.95	0.21
4544	2200.7	45.3	-10	9.14	0.235
4545.6	2199.9	53.3	-10	9.33	0.259
4547.3	2199.1	59.6	-10	9.52	0.283
4542.1	2201.6	0.6	0	8.35	0.138
4543.3	2201	8.8	0	8.54	0.162
4544.7	2200.4	18	0	8.73	0.186
4546.1	2199.7	26.7	0	8.92	0.211
4547.6	2198.9	34.6	0	9.11	0.235
4549.3	2198.1	41.5	0	9.3	0.259
4551.1	2197.3	46.9	0	9.5	0.283
4546.2	2199.7	0.5	10	8.42	0.15
4548.2	2198.7	10.9	10	8.7	0.186
4549.7	2198	18.4	10	8.89	0.21
4551.3	2197.2	25.1	10	9.08	0.235
4553	2196.4	30.8	10	9.28	0.259
4554.8	2195.5	35.5	10	9.48	0.283
4550.4	2197.6	0.5	20	8.51	0.165
4551.7	2197	5.3	20	8.67	0.186
4553.2	2196.3	11.4	20	8.86	0.211
4554.9	2195.4	17	20	9.06	0.235
4556.7	2194.6	21.8	20	9.26	0.259
4558.6	2193.7	25.6	20	9.46	0.283
4554.9	2195.4	0.5	30	8.6	0.18
4556.8	2194.5	6.1	30	8.84	0.21
4558.6	2193.7	10.6	30	9.04	0.235
4560.4	2192.8	14.6	30	9.24	0.259
4562.4	2191.8	17.7	30	9.44	0.283
4559.6	2193.2	0.4	40	8.73	0.198
4560.5	2192.8	1.9	40	8.82	0.21
4562.3	2191.9	5.5	40	9.02	0.235
4564.2	2191	8.8	40	9.22	0.259
4566.3	2190	11.3	40	9.43	0.283
4564.7	2190.7	0.4	50	8.88	0.217
4566	2190.1	2	50	9.02	0.235
4568	2189.2	4.5	50	9.22	0.259
4570.1	2188.1	6.5	50	9.43	0.283

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$\lambda[\text{nm}]$ $\nu[\text{cm}^{-1}]$ $P[\text{mW}]$ $\text{Temp}[\text{°C}]$ $U_{\text{LASER}}[\text{V}]$ $I[\text{A}]$
 Table 1: Singlemode optical output power as function of operating parameters.

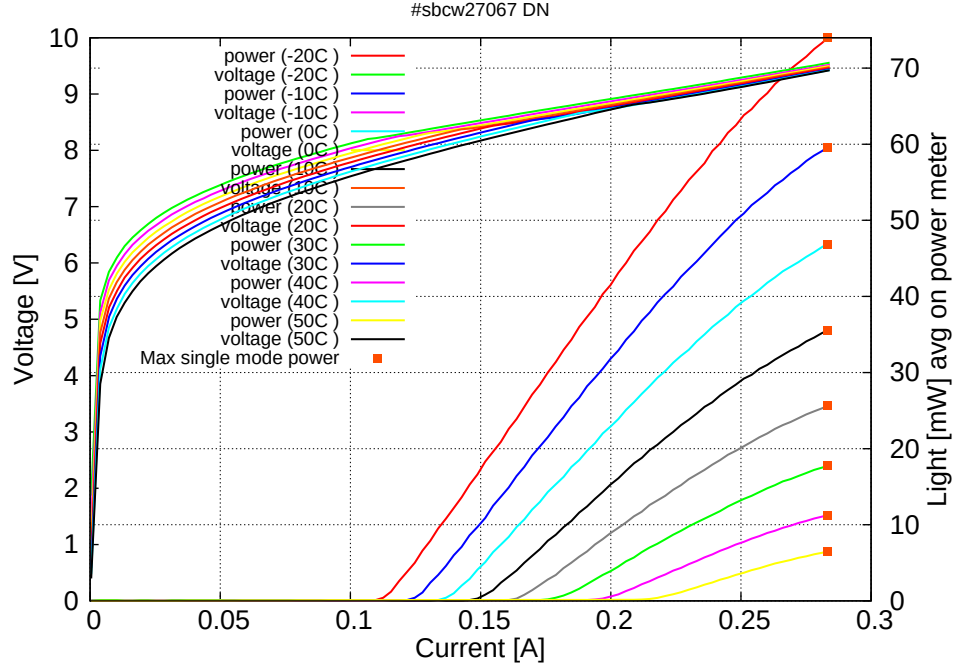


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{\text{th}}=0.11\text{A}$ / $V_{\text{th}}=8.2\text{V}$ (2-wires measurements). Maximum operation current: 0.285A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

