

Datasheet for #sbcw27267 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 #sbcw27267 DN (please note that AlN submount numbering is A0ULA)

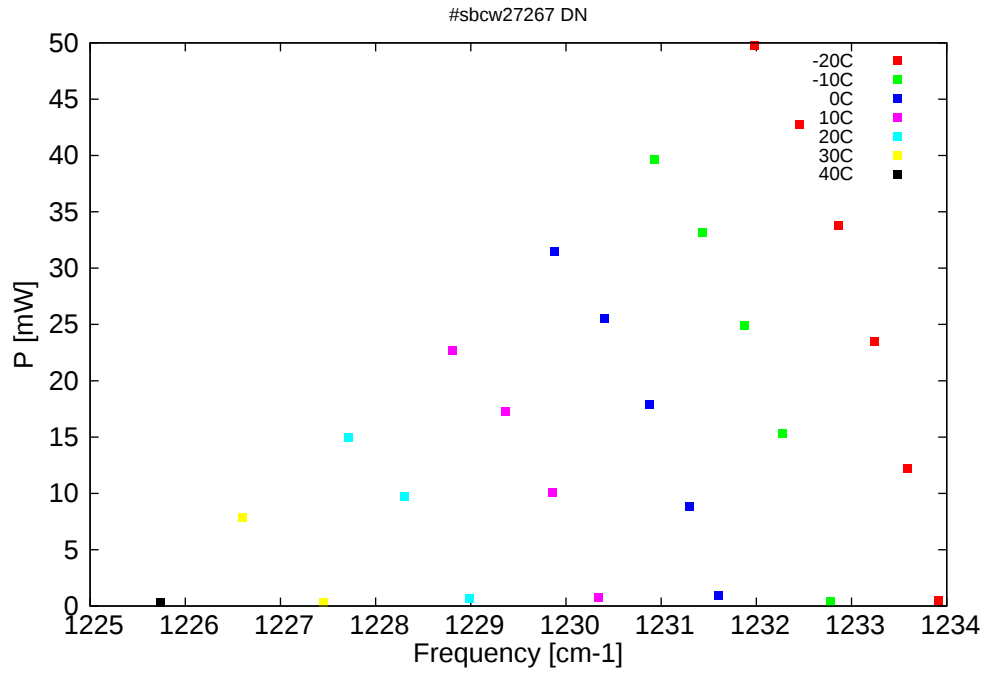


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

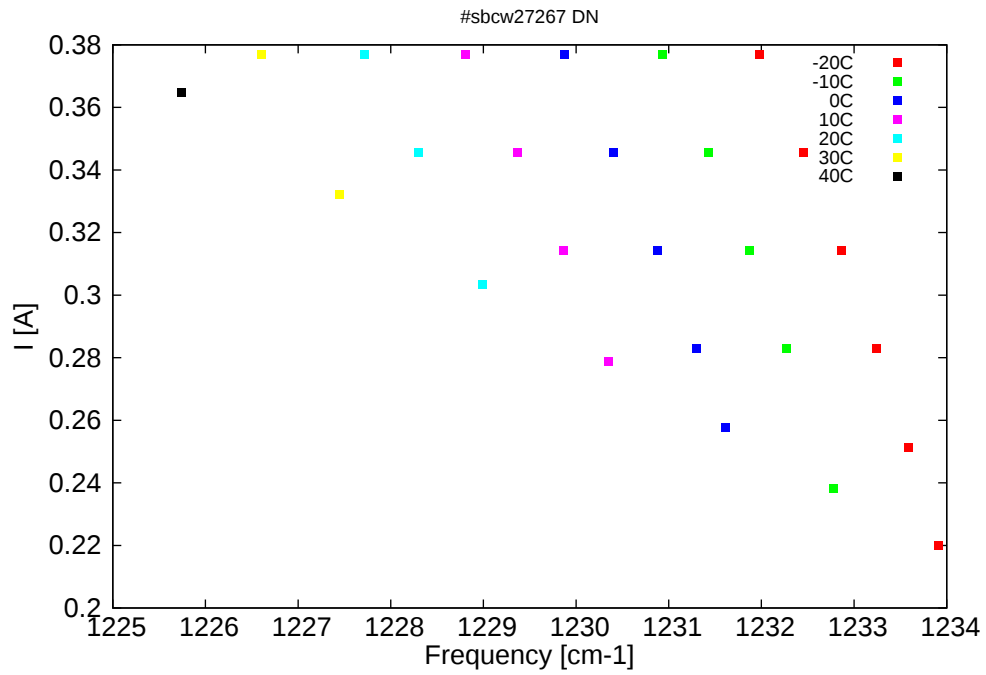


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
8104.3	1233.9	0.5	-20	7.06	0.22
8106.4	1233.6	12.2	-20	7.29	0.251
8108.7	1233.2	23.5	-20	7.52	0.283
8111.2	1232.9	33.8	-20	7.76	0.314
8113.9	1232.5	42.7	-20	8.02	0.346
8117	1232	49.7	-20	8.29	0.377
8111.7	1232.8	0.4	-10	7.18	0.238
8115.1	1232.3	15.3	-10	7.52	0.283
8117.7	1231.9	24.9	-10	7.76	0.314
8120.6	1231.4	33.2	-10	8.03	0.346
8123.9	1230.9	39.6	-10	8.31	0.377
8119.5	1231.6	0.9	0	7.31	0.258
8121.5	1231.3	8.8	0	7.51	0.283
8124.3	1230.9	17.9	0	7.76	0.314
8127.4	1230.4	25.5	0	8.04	0.346
8130.9	1229.9	31.4	0	8.33	0.377
8127.8	1230.3	0.8	10	7.47	0.279
8131	1229.9	10.1	10	7.77	0.314
8134.3	1229.4	17.2	10	8.05	0.346
8138	1228.8	22.7	10	8.34	0.377
8136.8	1229	0.7	20	7.68	0.304
8141.3	1228.3	9.7	20	8.06	0.346
8145.2	1227.7	15	20	8.36	0.377
8147	1227.4	0.3	30	7.93	0.332
8152.6	1226.6	7.9	30	8.37	0.377
8158.3	1225.7	0.3	40	8.26	0.365

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

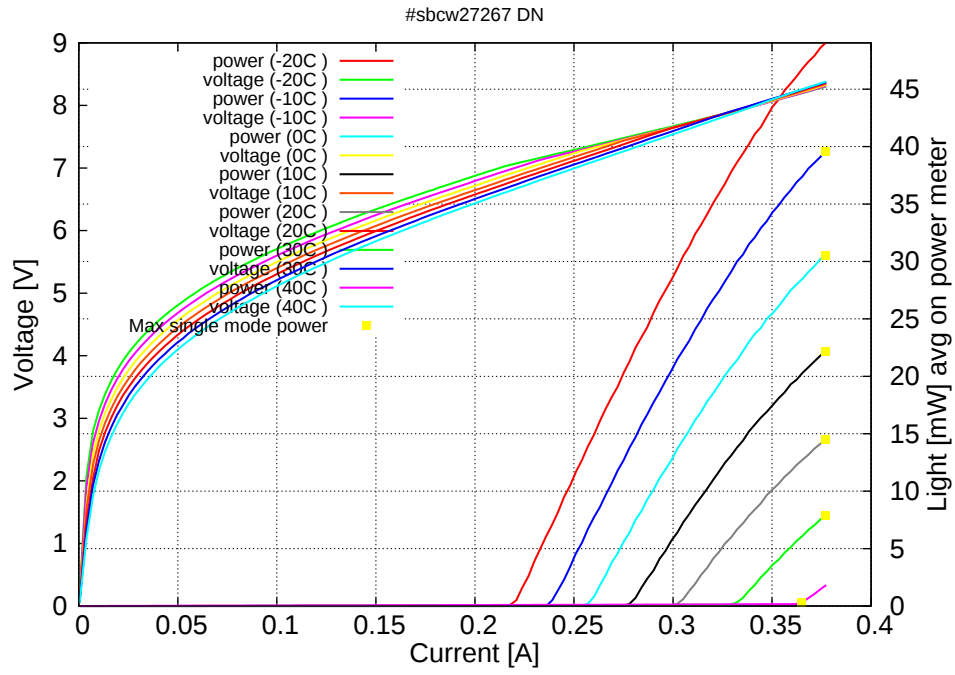


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.22A$ / $V_{th}=7.0V$ (2-wires measurements). Maximum operation current: 0.38A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

