

Datasheet for #sbcw27626 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.

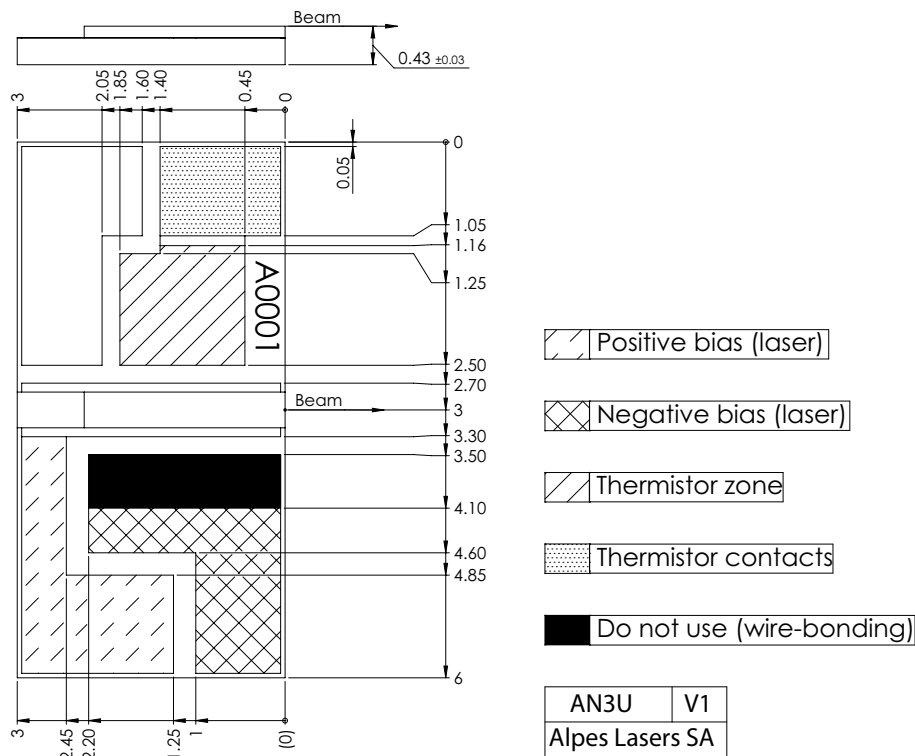


Figure 1: Mechanical and electrical interface for #sbcw27626 DN (please note that AlN submount numbering is A0VAZ)

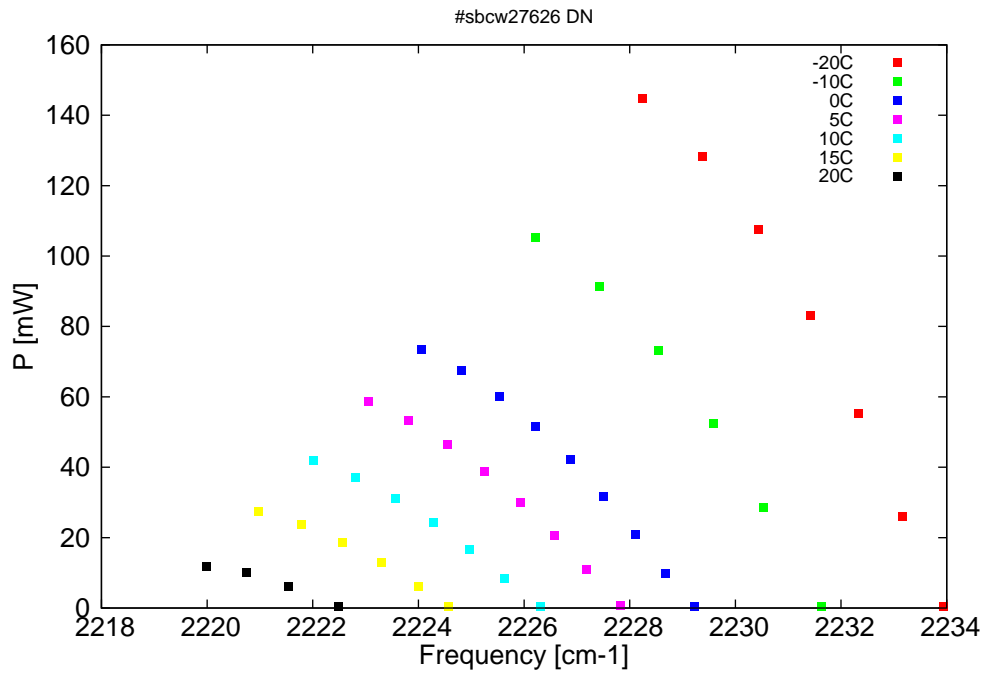


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

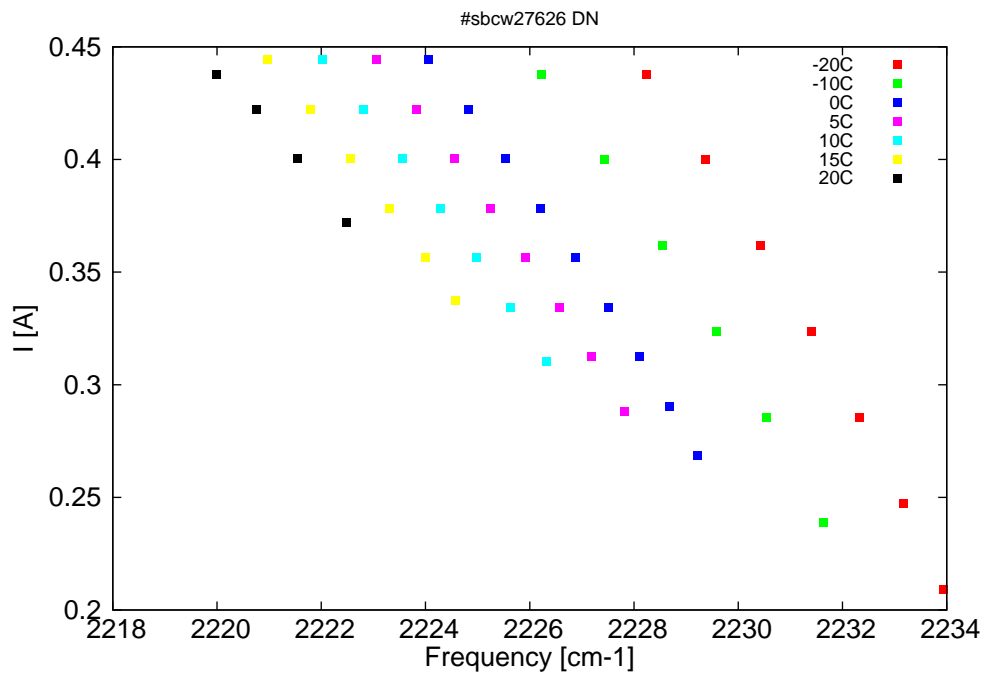


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4476.4	2233.9	0.5	-20	8.36	0.209
4477.9	2233.2	26	-20	8.55	0.247
4479.6	2232.3	55.4	-20	8.73	0.286
4481.5	2231.4	83.1	-20	8.91	0.324
4483.4	2230.4	107.7	-20	9.09	0.362
4485.6	2229.4	128.3	-20	9.27	0.4
4487.9	2228.2	144.8	-20	9.46	0.438
4481	2231.6	0.6	-10	8.47	0.239
4483.2	2230.5	28.7	-10	8.7	0.286
4485.1	2229.6	52.3	-10	8.89	0.324
4487.2	2228.5	73.1	-10	9.07	0.362
4489.5	2227.4	91.4	-10	9.26	0.4
4491.9	2226.2	105.4	-10	9.45	0.438
4485.9	2229.2	0.3	0	8.6	0.269
4487	2228.7	9.8	0	8.71	0.291
4488.1	2228.1	21	0	8.82	0.313
4489.3	2227.5	31.8	0	8.93	0.334
4490.6	2226.9	42.1	0	9.04	0.356
4491.9	2226.2	51.5	0	9.15	0.378
4493.3	2225.5	60	0	9.26	0.4
4494.8	2224.8	67.5	0	9.38	0.422
4496.3	2224.1	73.6	0	9.49	0.444
4488.7	2227.8	0.6	5	8.7	0.288
4490	2227.2	10.9	5	8.81	0.313
4491.2	2226.6	20.6	5	8.92	0.334
4492.5	2225.9	30.1	5	9.03	0.356
4493.9	2225.3	38.8	5	9.14	0.378
4495.3	2224.6	46.4	5	9.26	0.4
4496.8	2223.8	53.3	5	9.37	0.422
4498.3	2223	58.8	5	9.49	0.444
4491.7	2226.3	0.3	10	8.8	0.311
4493.1	2225.6	8.4	10	8.92	0.334
4494.4	2225	16.6	10	9.03	0.356
4495.8	2224.3	24.3	10	9.14	0.378
4497.3	2223.6	31.2	10	9.26	0.4
4498.8	2222.8	37.1	10	9.37	0.422
4500.4	2222	42	10	9.49	0.444
4495.2	2224.6	0.5	15	8.93	0.337
4496.4	2224	6.2	15	9.02	0.356
4497.8	2223.3	13	15	9.14	0.378
4499.3	2222.6	18.8	15	9.25	0.4
4500.9	2221.8	23.7	15	9.37	0.422
4502.5	2221	27.4	15	9.49	0.444
4499.5	2222.5	0.3	20	9.11	0.372
4501.4	2221.5	6.1	20	9.26	0.4
4503	2220.8	10	20	9.38	0.422
4504.5	2220	11.9	20	9.44	0.438

continued on next page

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

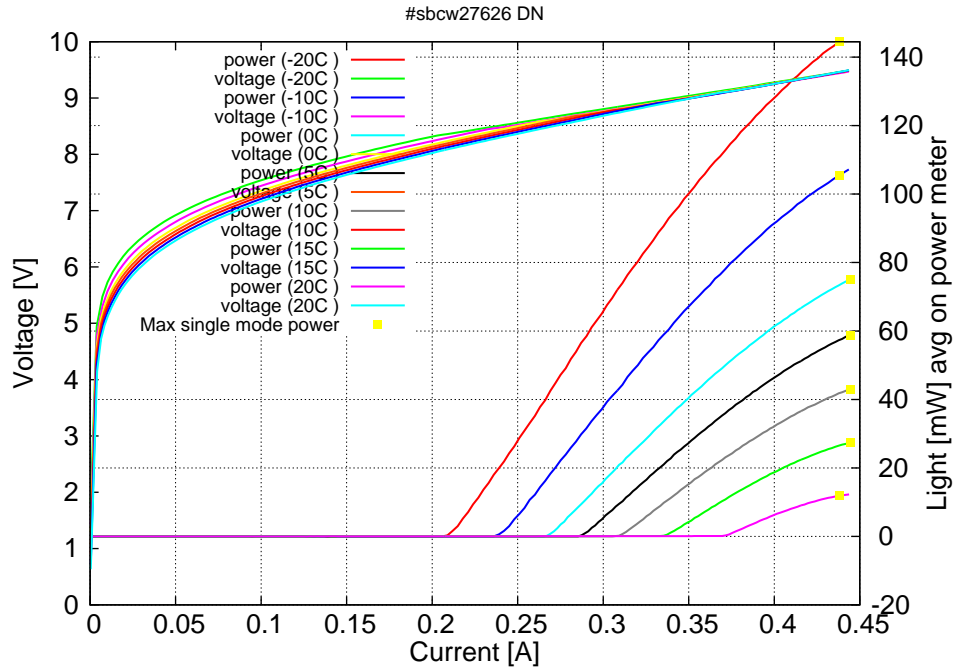


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.21\text{A}$ / $V_{th}=8.3\text{V}$ (2-wires measurements). Maximum operation current: 0.445A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

