

Datasheet for #sbcw26089 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.

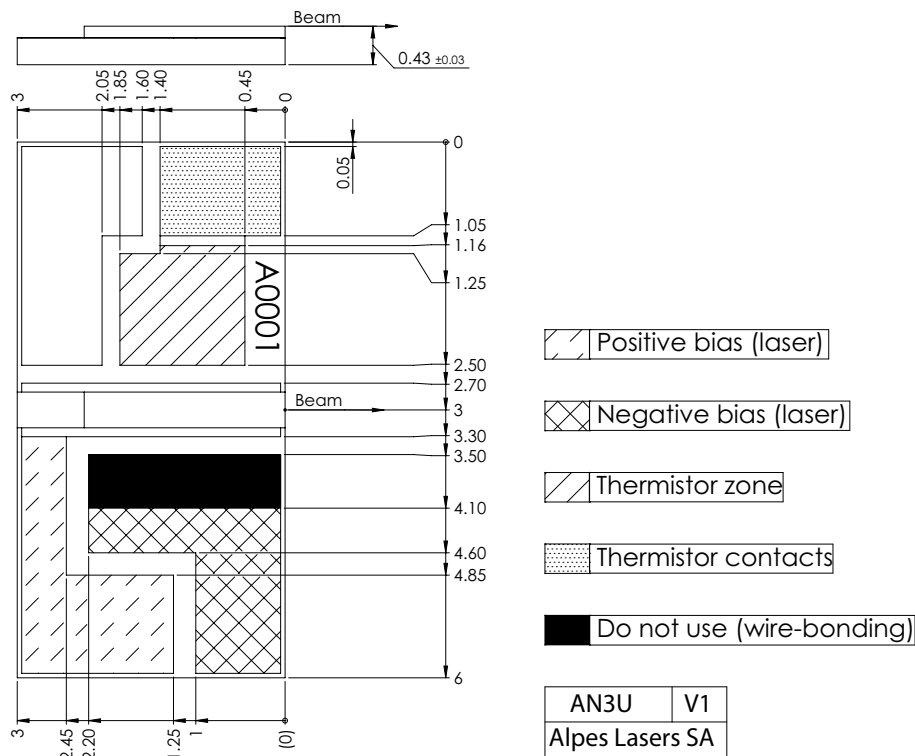


Figure 1: Mechanical and electrical interface for #sbcw26089 DN (please note that AlN submount numbering is A0VXE)

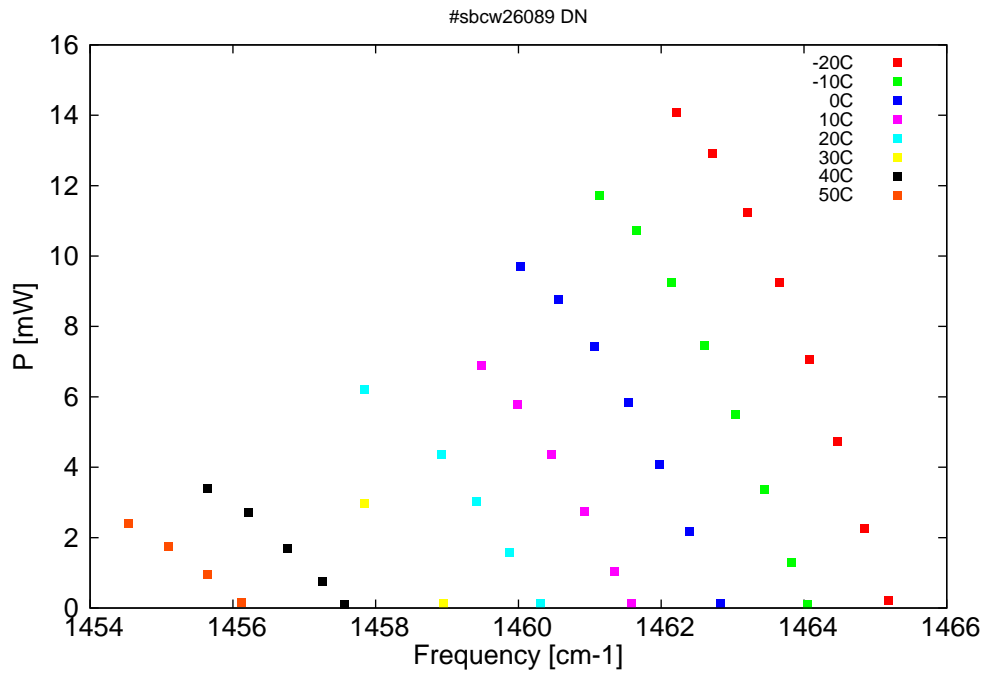


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

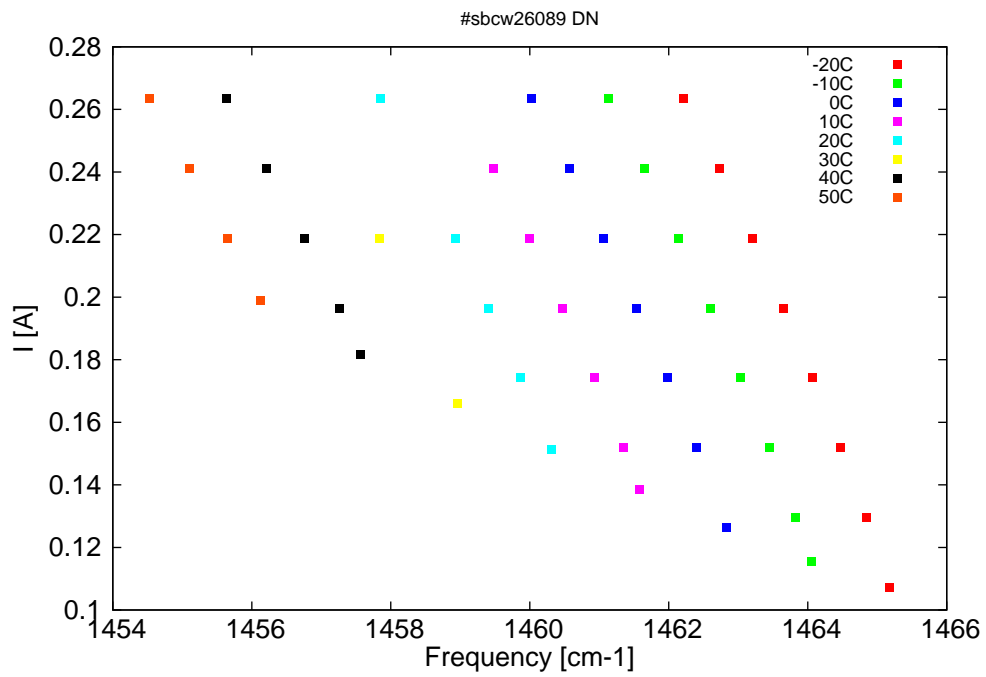


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
6825.1	1465.2	0.2	-20	10.72	0.107
6826.7	1464.8	2.3	-20	11.1	0.13
6828.4	1464.5	4.7	-20	11.47	0.152
6830.3	1464.1	7.1	-20	11.82	0.174
6832.2	1463.7	9.2	-20	12.16	0.197
6834.3	1463.2	11.2	-20	12.51	0.219
6836.6	1462.7	12.9	-20	12.86	0.241
6838.9	1462.2	14.1	-20	13.22	0.263
6830.4	1464	0.1	-10	10.7	0.116
6831.4	1463.8	1.3	-10	10.94	0.13
6833.2	1463.4	3.4	-10	11.31	0.152
6835.1	1463	5.5	-10	11.66	0.174
6837.1	1462.6	7.5	-10	12.01	0.197
6839.3	1462.1	9.3	-10	12.35	0.219
6841.6	1461.7	10.7	-10	12.7	0.241
6844	1461.1	11.7	-10	13.05	0.264
6836.1	1462.8	0.1	0	10.73	0.126
6838.1	1462.4	2.2	0	11.15	0.152
6840.1	1462	4.1	0	11.51	0.174
6842.1	1461.5	5.8	0	11.85	0.197
6844.3	1461.1	7.4	0	12.19	0.219
6846.6	1460.6	8.8	0	12.54	0.241
6849.2	1460	9.7	0	12.89	0.264
6841.9	1461.6	0.1	10	10.79	0.139
6843	1461.3	1	10	11	0.152
6845	1460.9	2.7	10	11.36	0.174
6847.1	1460.5	4.3	10	11.7	0.197
6849.4	1460	5.8	10	12.04	0.219
6851.8	1459.5	6.9	10	12.39	0.241
6847.8	1460.3	0.1	20	10.85	0.151
6849.9	1459.9	1.6	20	11.22	0.174
6852.1	1459.4	3	20	11.56	0.197
6854.3	1458.9	4.4	20	11.9	0.219
6859.4	1457.9	6.2	20	12.57	0.264
6854.2	1459	0.1	30	10.95	0.166
6859.5	1457.8	3	30	11.76	0.219
6860.8	1457.6	0.1	40	11.05	0.182
6862.2	1457.3	0.8	40	11.28	0.197
6864.5	1456.8	1.7	40	11.61	0.219
6867.1	1456.2	2.7	40	11.94	0.241
6869.8	1455.6	3.4	40	12.27	0.264
6867.6	1456.1	0.2	50	11.18	0.199
6869.8	1455.6	1	50	11.47	0.219
6872.4	1455.1	1.8	50	11.8	0.241
6875.1	1454.5	2.4	50	12.12	0.264

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

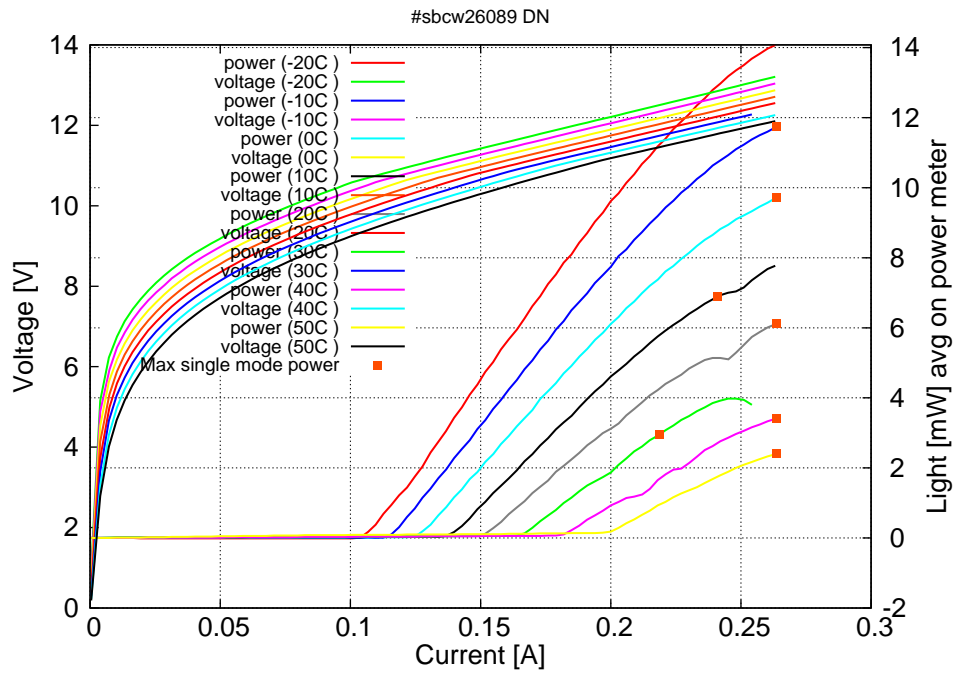


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.11A$ / $V_{th}=10.7V$ (2-wires measurements). Maximum operation current: 0.265A for all temperatures.

