

Datasheet for #sbcw26073 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 #sbcw26073 DN (please note that AlN submount numbering is A0WJK)

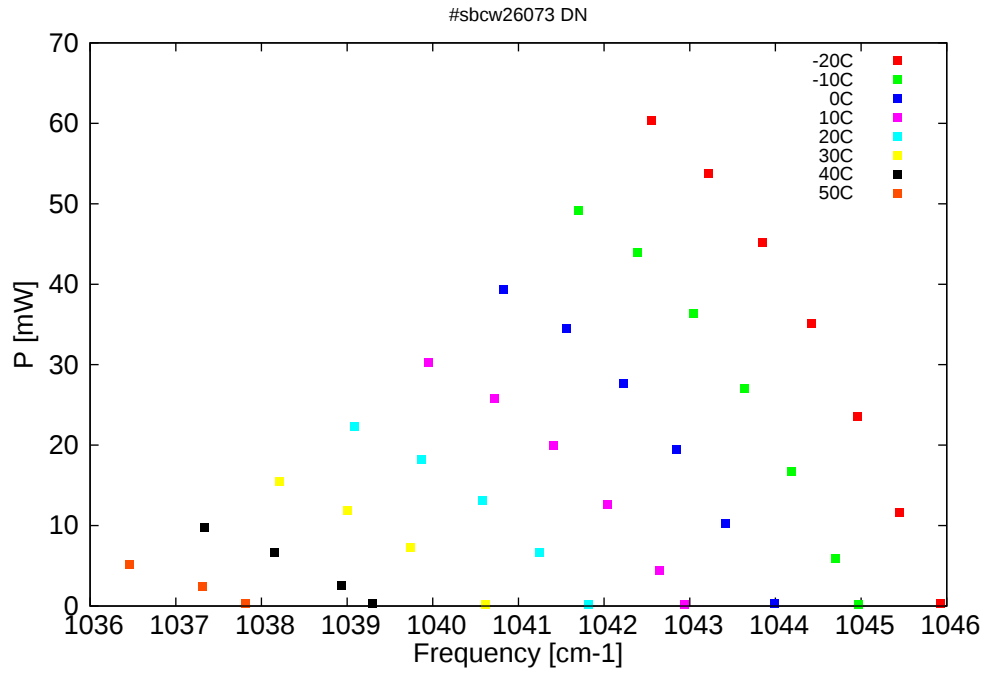


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

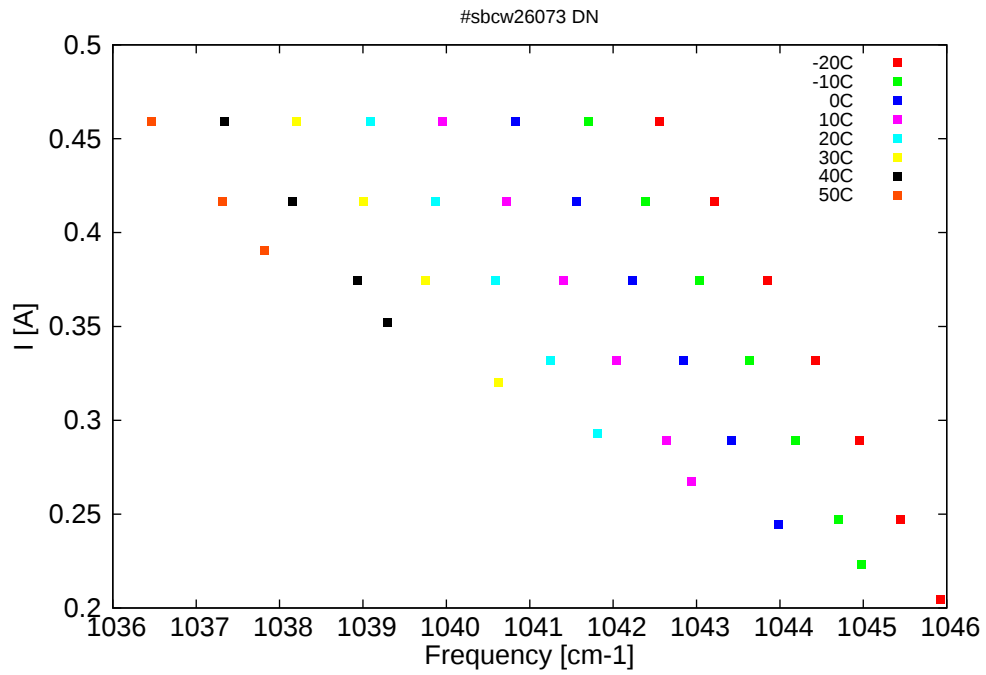


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
9560.9	1045.9	0.3	-20	8.59	0.205
9565.3	1045.4	11.6	-20	8.93	0.247
9569.8	1045	23.6	-20	9.26	0.29
9574.7	1044.4	35.1	-20	9.58	0.332
9580	1043.8	45.2	-20	9.9	0.374
9585.7	1043.2	53.8	-20	10.2	0.417
9591.8	1042.6	60.3	-20	10.51	0.459
9569.6	1045	0.1	-10	8.66	0.223
9572.1	1044.7	5.9	-10	8.85	0.247
9576.8	1044.2	16.7	-10	9.18	0.29
9581.9	1043.6	27	-10	9.51	0.332
9587.4	1043	36.3	-10	9.82	0.374
9593.3	1042.4	44	-10	10.14	0.417
9599.7	1041.7	49.2	-10	10.44	0.459
9578.7	1044	0.3	0	8.75	0.245
9583.9	1043.4	10.3	0	9.11	0.29
9589.2	1042.8	19.4	0	9.44	0.332
9594.8	1042.2	27.7	0	9.76	0.374
9601	1041.6	34.5	0	10.07	0.417
9607.7	1040.8	39.3	0	10.39	0.459
9588.3	1042.9	0.2	10	8.86	0.267
9591	1042.6	4.4	10	9.04	0.29
9596.5	1042	12.6	10	9.37	0.332
9602.4	1041.4	20	10	9.7	0.374
9608.8	1040.7	25.8	10	10.02	0.417
9615.9	1039.9	30.2	10	10.33	0.459
9598.6	1041.8	0.2	20	8.99	0.293
9603.9	1041.2	6.6	20	9.3	0.332
9610	1040.6	13.1	20	9.63	0.374
9616.6	1039.9	18.2	20	9.96	0.417
9623.8	1039.1	22.3	20	10.28	0.459
9609.6	1040.6	0.2	30	9.14	0.32
9617.7	1039.7	7.3	30	9.57	0.374
9624.6	1039	11.9	30	9.9	0.417
9632	1038.2	15.5	30	10.23	0.459
9621.9	1039.3	0.3	40	9.33	0.352
9625.3	1038.9	2.6	40	9.51	0.374
9632.5	1038.2	6.6	40	9.84	0.417
9640.1	1037.3	9.8	40	10.17	0.459
9635.6	1037.8	0.4	50	9.56	0.39
9640.3	1037.3	2.4	50	9.77	0.417
9648.2	1036.5	5.2	50	10.1	0.459

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

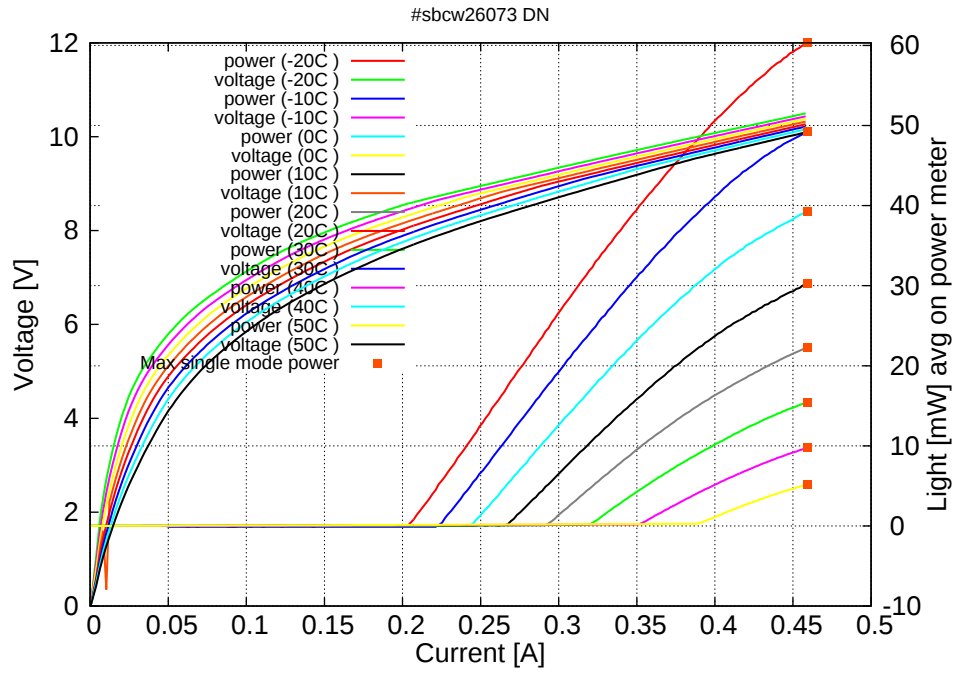


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.20A$ / $V_{th}=8.6V$ (2-wires measurements). Maximum operation current: 0.46A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

