

Datasheet for #sbcw26594 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 #sbcw26594 DN (please note that AlN submount numbering is A0U0R)

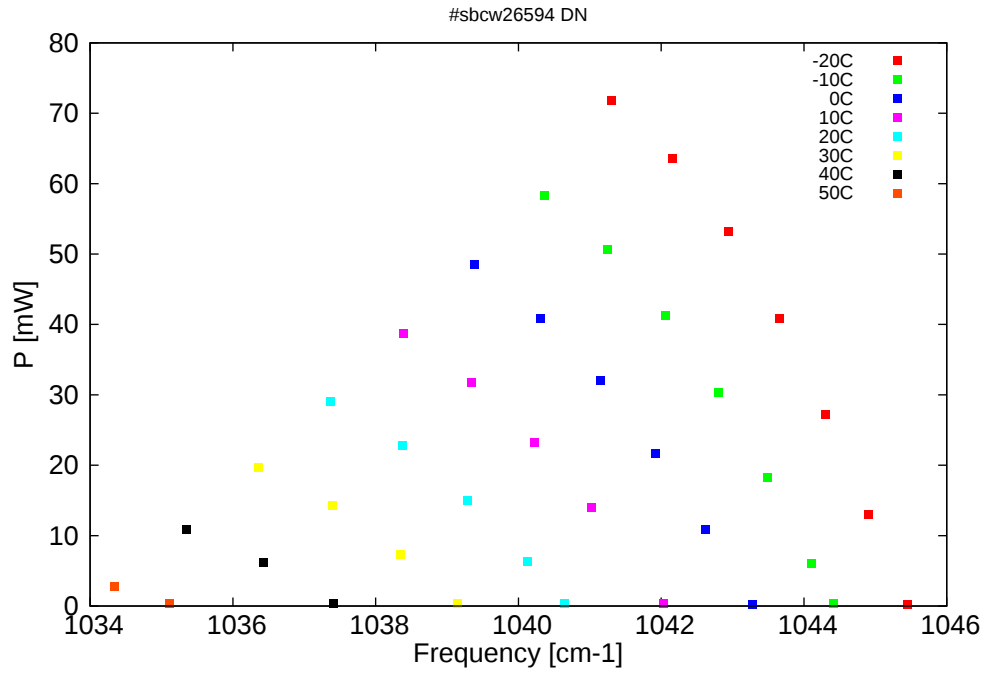


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

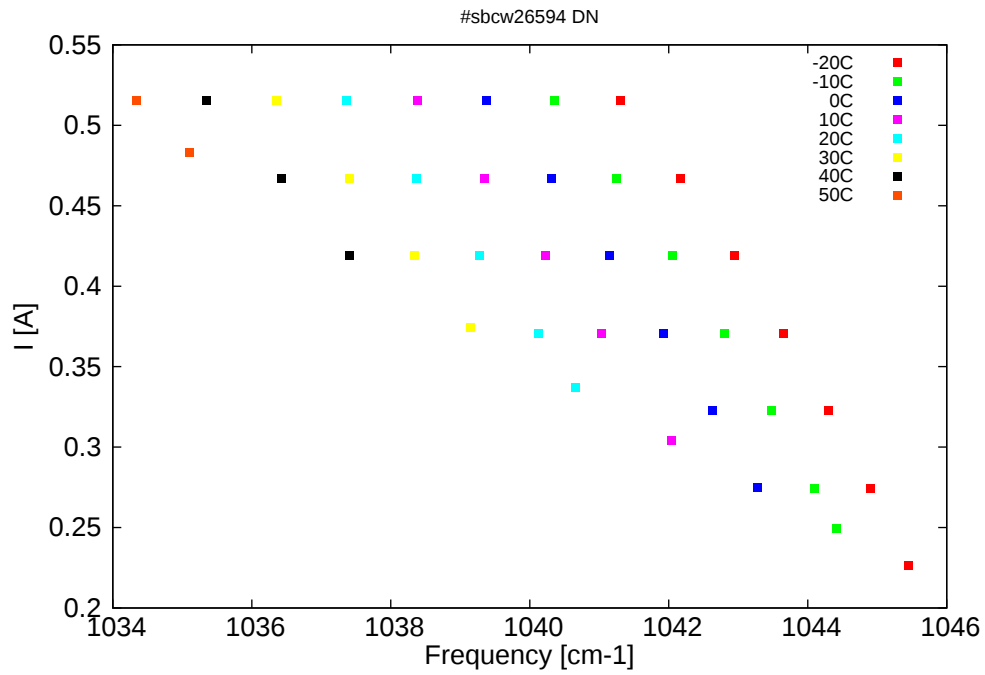


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
9565.2	1045.5	0.3	-20	8.71	0.226
9570.2	1044.9	13	-20	9.08	0.274
9575.8	1044.3	27.2	-20	9.44	0.323
9581.7	1043.7	40.9	-20	9.78	0.371
9588.2	1042.9	53.2	-20	10.12	0.419
9595.4	1042.2	63.5	-20	10.46	0.467
9603.3	1041.3	71.8	-20	10.8	0.515
9574.8	1044.4	0.4	-10	8.8	0.25
9577.6	1044.1	6	-10	8.99	0.274
9583.3	1043.5	18.2	-10	9.35	0.323
9589.6	1042.8	30.3	-10	9.7	0.371
9596.4	1042.1	41.3	-10	10.05	0.419
9603.9	1041.2	50.6	-10	10.39	0.467
9612	1040.4	58.3	-10	10.73	0.515
9585.2	1043.3	0.2	0	8.91	0.275
9591.2	1042.6	10.9	0	9.27	0.323
9597.7	1041.9	21.7	0	9.63	0.371
9604.8	1041.1	32	0	9.98	0.419
9612.6	1040.3	40.8	0	10.32	0.467
9621.1	1039.4	48.4	0	10.67	0.515
9596.6	1042	0.4	10	9.05	0.304
9605.9	1041	13.9	10	9.55	0.371
9613.3	1040.2	23.3	10	9.91	0.419
9621.4	1039.3	31.8	10	10.26	0.467
9630.3	1038.4	38.7	10	10.61	0.515
9609.4	1040.7	0.4	20	9.23	0.337
9614.3	1040.1	6.4	20	9.48	0.371
9622	1039.3	15	20	9.84	0.419
9630.5	1038.4	22.8	20	10.19	0.467
9639.8	1037.4	29	20	10.55	0.515
9623.3	1039.1	0.4	30	9.44	0.374
9630.7	1038.3	7.3	30	9.77	0.419
9639.5	1037.4	14.2	30	10.13	0.467
9649.2	1036.4	19.7	30	10.5	0.515
9639.4	1037.4	0.4	40	9.72	0.419
9648.5	1036.4	6.2	40	10.08	0.467
9658.6	1035.4	10.9	40	10.45	0.515
9660.8	1035.1	0.4	50	10.14	0.483
9667.9	1034.3	2.7	50	10.39	0.515

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

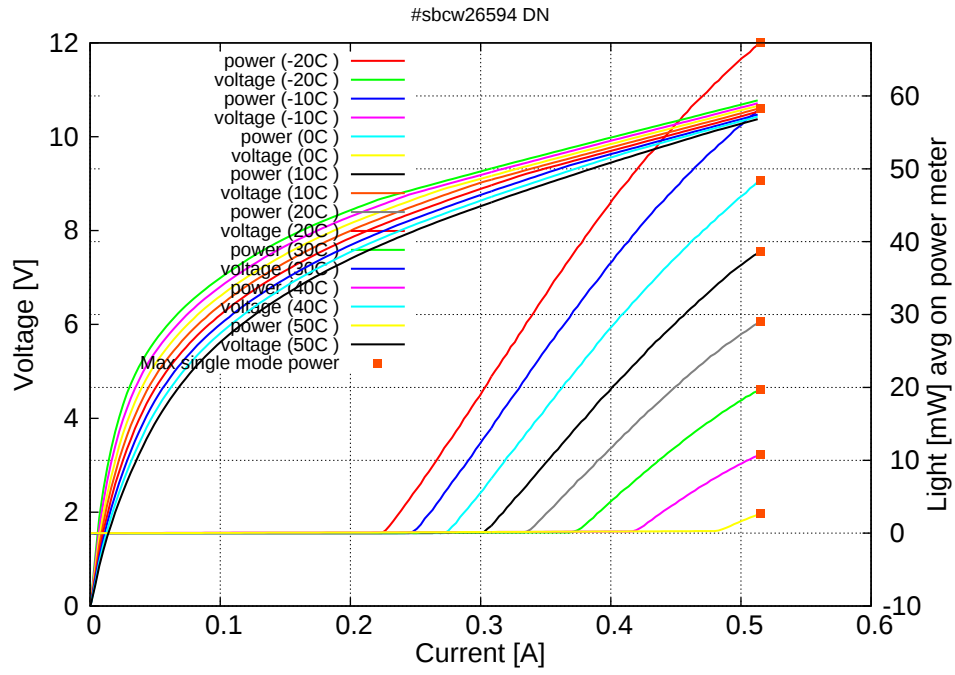


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.22A$ / $V_{th}=8.7V$ (2-wires measurements). Maximum operation current: 0.515A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

