

Datasheet for #sbcw26097 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 #sbcw26097 DN (please note that AlN submount numbering is A0YC2)

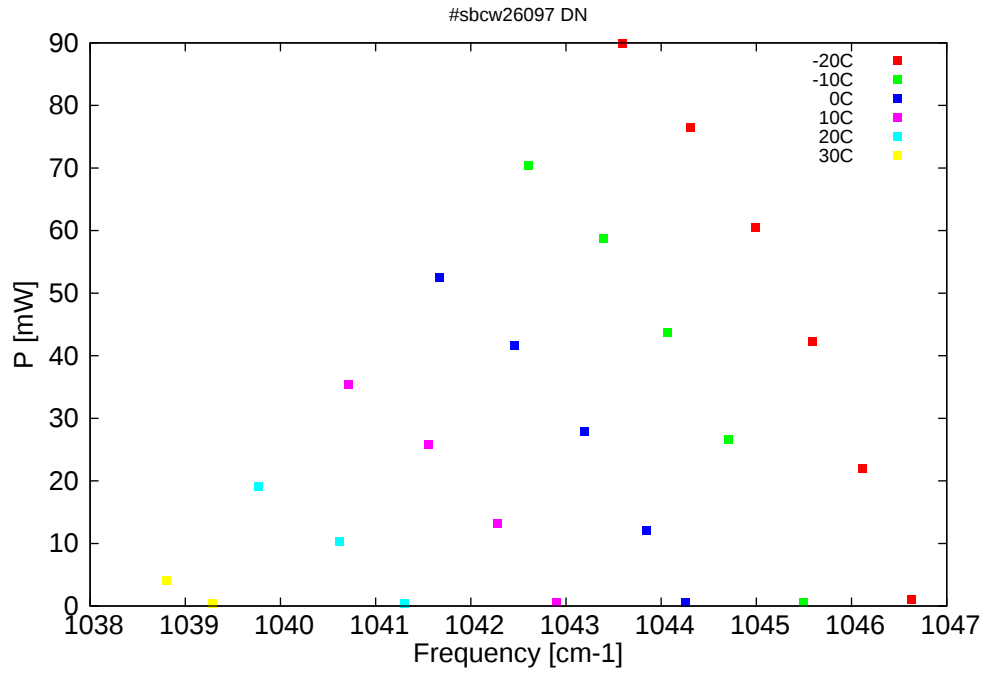


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

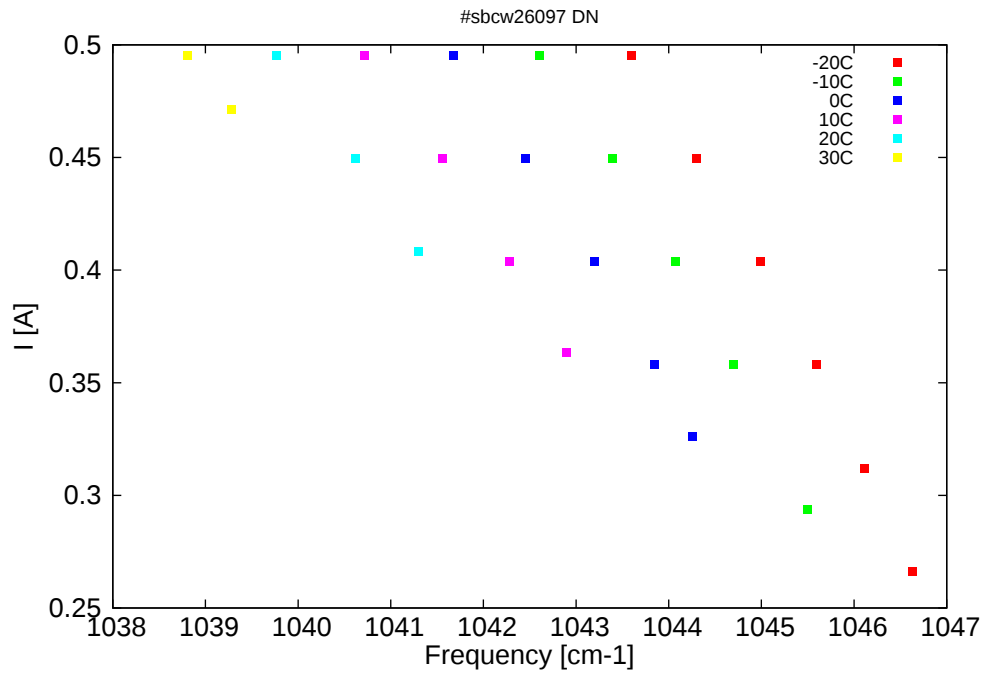


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
9554.5	1046.6	1.1	-20	9.24	0.266
9559.2	1046.1	21.9	-20	9.61	0.312
9564	1045.6	42.3	-20	9.97	0.358
9569.4	1045	60.5	-20	10.32	0.404
9575.8	1044.3	76.5	-20	10.67	0.45
9582.3	1043.6	89.9	-20	11.02	0.495
9564.8	1045.5	0.5	-10	9.36	0.294
9572.1	1044.7	26.6	-10	9.87	0.358
9577.9	1044.1	43.7	-10	10.22	0.404
9584.1	1043.4	58.7	-10	10.57	0.45
9591.3	1042.6	70.4	-10	10.92	0.495
9576.2	1044.3	0.6	0	9.52	0.326
9580	1043.8	12.1	0	9.77	0.358
9585.9	1043.2	27.9	0	10.13	0.404
9592.8	1042.5	41.7	0	10.49	0.45
9599.9	1041.7	52.5	0	10.84	0.495
9588.6	1042.9	0.5	10	9.73	0.363
9594.3	1042.3	13.2	10	10.05	0.404
9601	1041.6	25.8	10	10.41	0.45
9608.8	1040.7	35.4	10	10.76	0.495
9603.4	1041.3	0.5	20	10	0.408
9609.7	1040.6	10.4	20	10.32	0.45
9617.5	1039.8	19.1	20	10.69	0.495
9622	1039.3	0.4	30	10.49	0.471
9626.4	1038.8	4.1	30	10.68	0.495

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

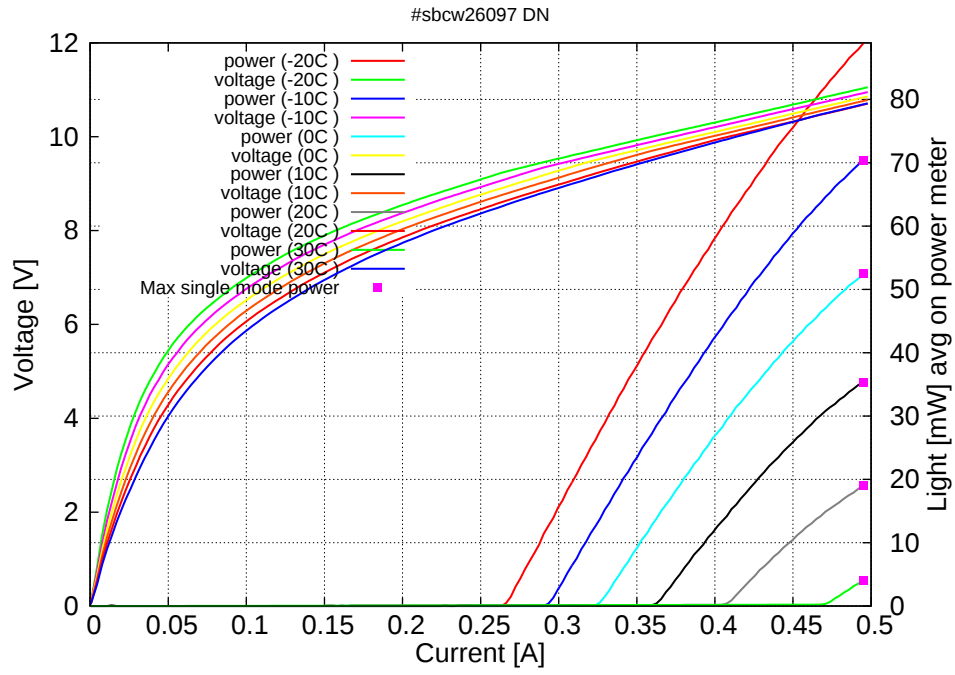


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.26A$ / $V_{th}=9.2V$ (2-wires measurements). Maximum operation current: 0.50A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

