

Datasheet for #sbcw26107 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 current on the laser contact (= bonding pad, corresponding to the label "laser" on the LLH) and the positive current on the base contact (= submount, corresponding to the label "base" on the LLH). 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.

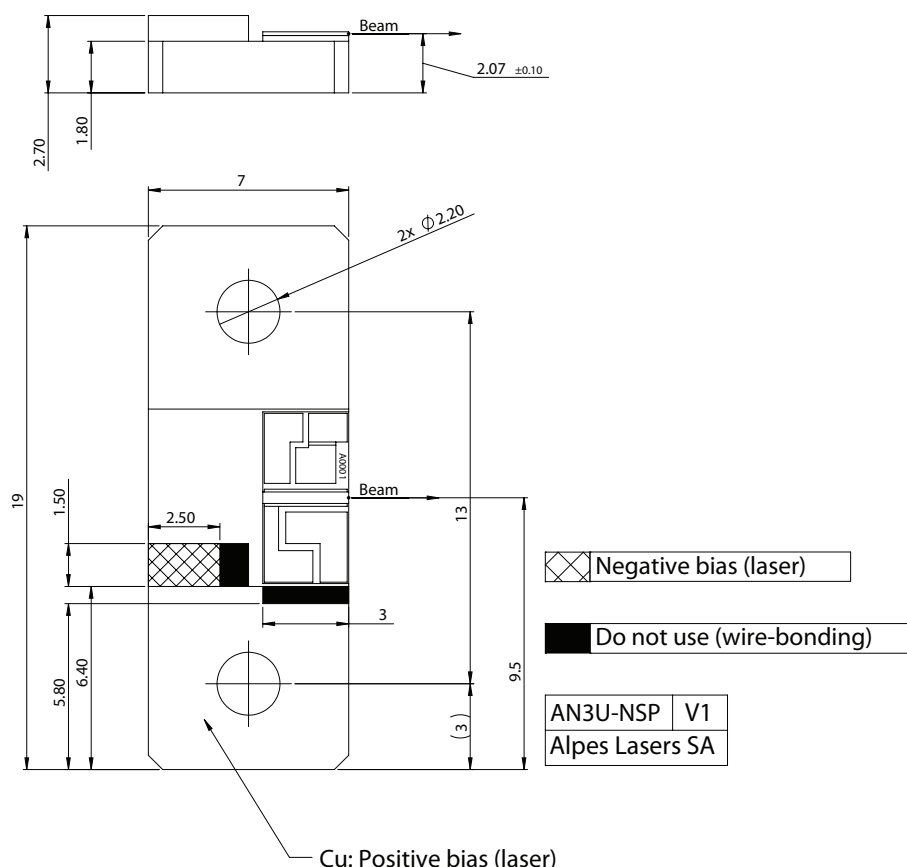


Figure 1: Mechanical and electrical interface for #sbcw26107 DN

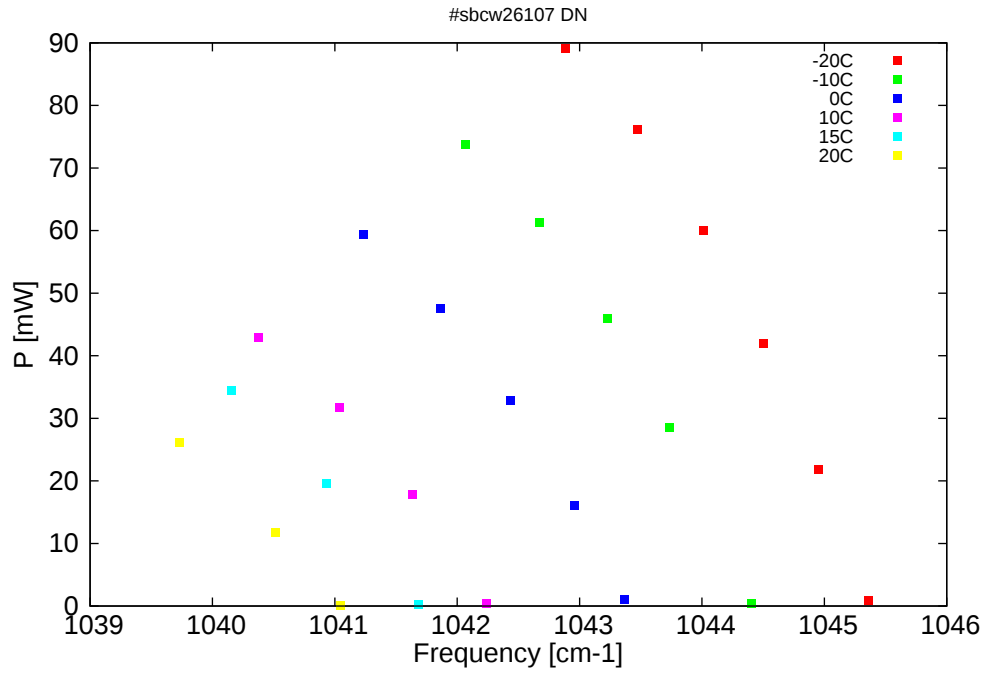


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

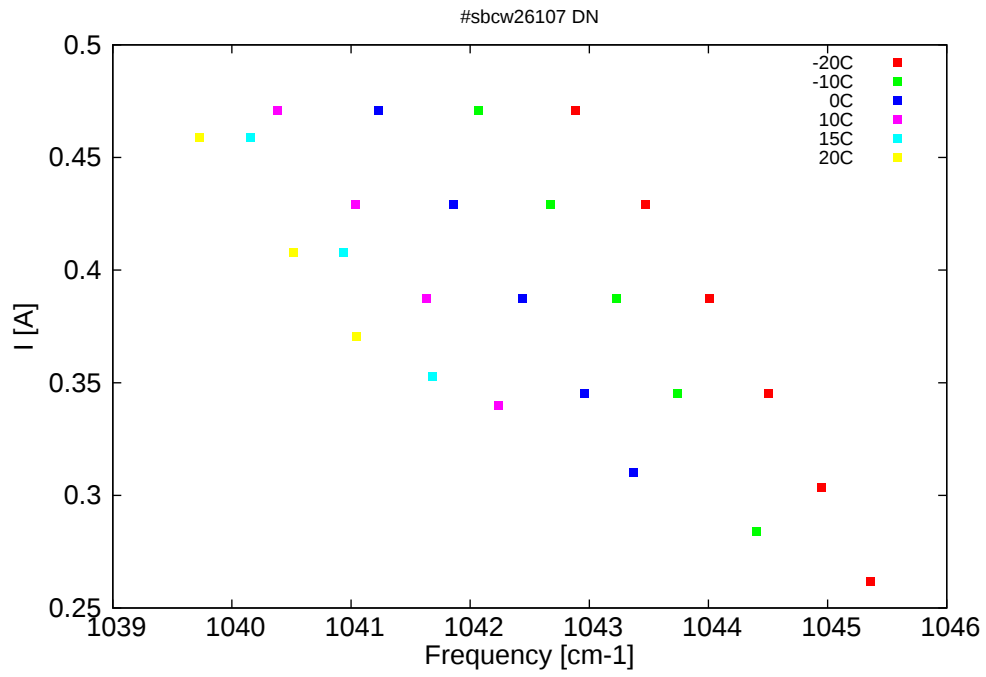


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
9566.1	1045.4	0.9	-20	9.34	0.262
9569.8	1045	21.9	-20	9.69	0.304
9574	1044.5	41.9	-20	10.03	0.345
9578.5	1044	59.9	-20	10.36	0.387
9583.4	1043.5	76.2	-20	10.69	0.429
9588.8	1042.9	89.1	-20	11.03	0.471
9574.8	1044.4	0.4	-10	9.44	0.284
9581	1043.7	28.5	-10	9.95	0.345
9585.6	1043.2	45.9	-10	10.28	0.387
9590.7	1042.7	61.2	-10	10.62	0.429
9596.3	1042.1	73.8	-10	10.96	0.471
9584.4	1043.4	1.1	0	9.58	0.31
9588.1	1043	16.1	0	9.87	0.345
9592.9	1042.4	32.9	0	10.21	0.387
9598.2	1041.9	47.5	0	10.56	0.429
9604	1041.2	59.4	0	10.9	0.471
9594.7	1042.2	0.4	10	9.75	0.34
9600.3	1041.6	17.9	10	10.14	0.387
9605.8	1041	31.7	10	10.49	0.429
9611.9	1040.4	42.9	10	10.84	0.471
9599.8	1041.7	0.3	15	9.85	0.353
9606.8	1040.9	19.6	15	10.31	0.408
9614	1040.2	34.5	15	10.73	0.459
9605.7	1041	0.1	20	9.96	0.371
9610.6	1040.5	11.8	20	10.27	0.408
9617.9	1039.7	26.1	20	10.7	0.459

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

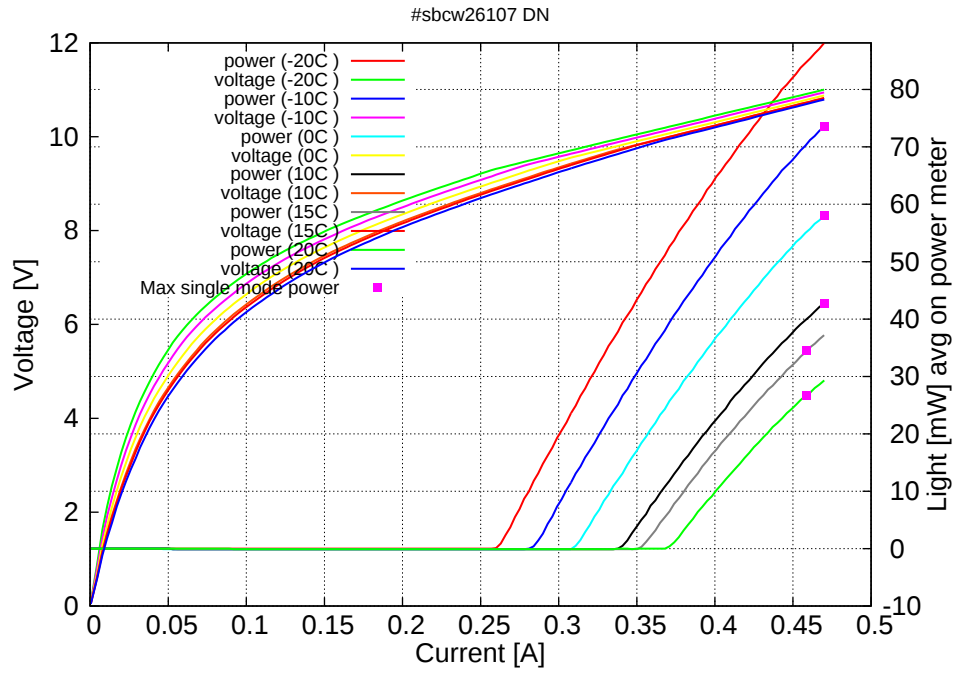


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.26A$ / $V_{th}=9.3V$ (2-wires measurements). Maximum operation current: 0.47A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

