

Datasheet for #sbcw26098 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.

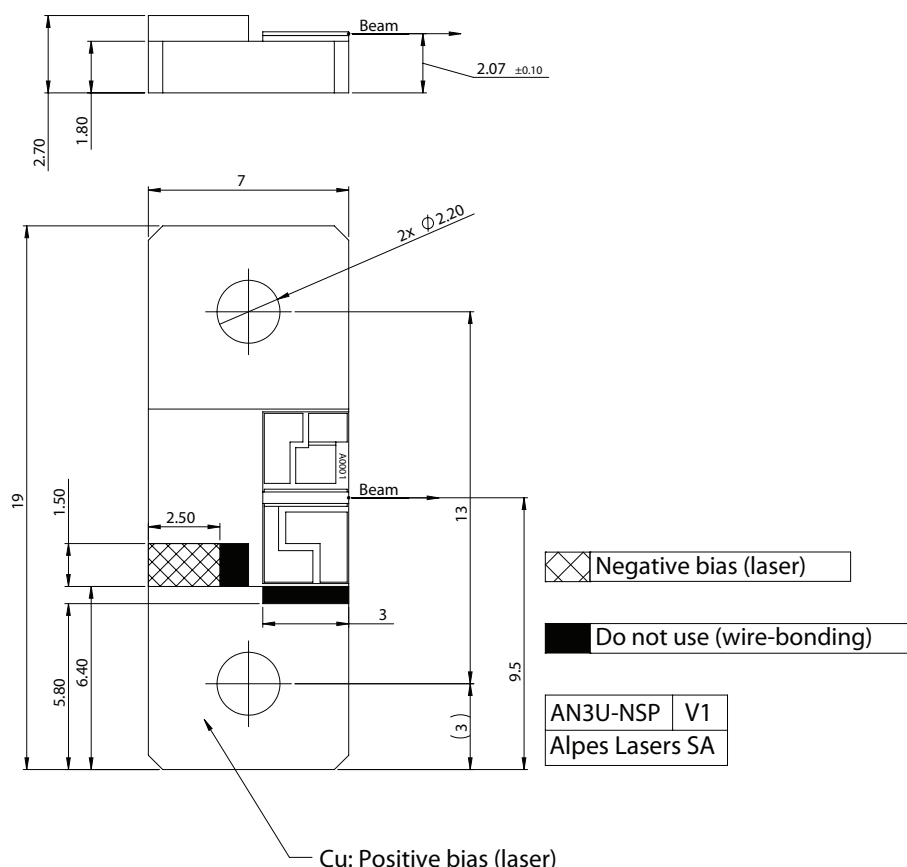


Figure 1: Mechanical and electrical interface for #sbcw26098 DN

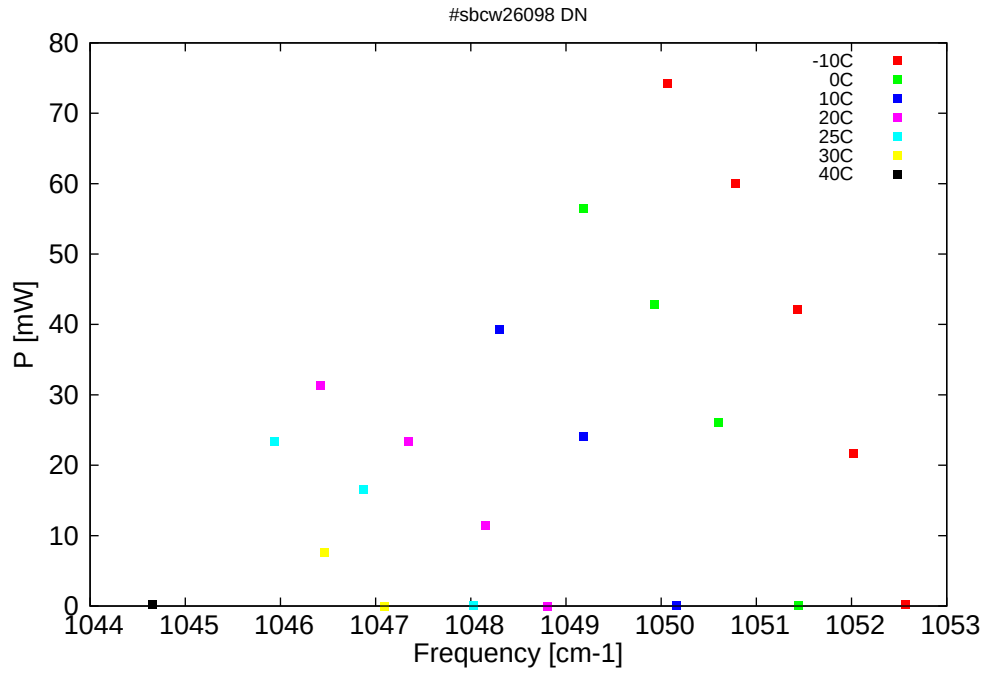


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

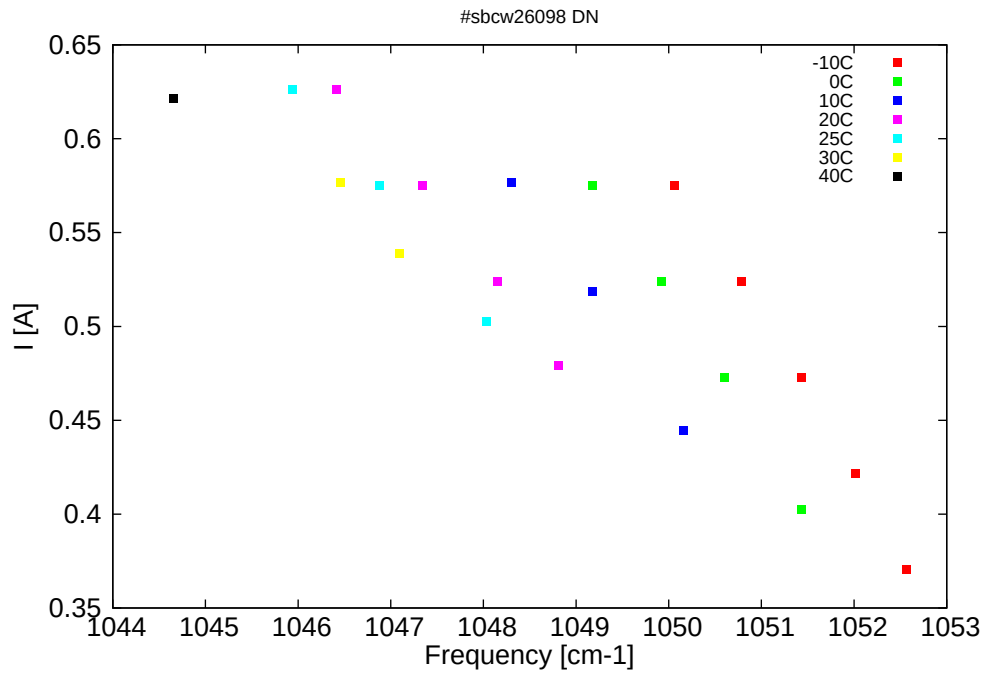


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
9500.6	1052.6	0.2	-10	9.26	0.37
9505.5	1052	21.6	-10	9.58	0.422
9510.8	1051.4	42.1	-10	9.9	0.473
9516.7	1050.8	60	-10	10.21	0.524
9523.2	1050.1	74.2	-10	10.54	0.575
9510.8	1051.4	0	0	9.39	0.402
9518.3	1050.6	26	0	9.84	0.473
9524.5	1049.9	42.9	0	10.16	0.524
9531.2	1049.2	56.4	0	10.5	0.575
9522.4	1050.2	0.1	10	9.58	0.444
9531.2	1049.2	24.1	10	10.06	0.518
9539.3	1048.3	39.2	10	10.44	0.577
9534.6	1048.8	0	20	9.77	0.479
9540.6	1048.2	11.5	20	10.07	0.524
9548	1047.3	23.4	20	10.42	0.575
9556.4	1046.4	31.3	20	10.79	0.626
9541.7	1048	0.1	25	9.91	0.502
9552.2	1046.9	16.5	25	10.4	0.575
9560.8	1045.9	23.4	25	10.78	0.626
9550.2	1047.1	0	30	10.1	0.539
9556	1046.5	7.5	30	10.36	0.577
9572.5	1044.7	0.2	40	10.67	0.621

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

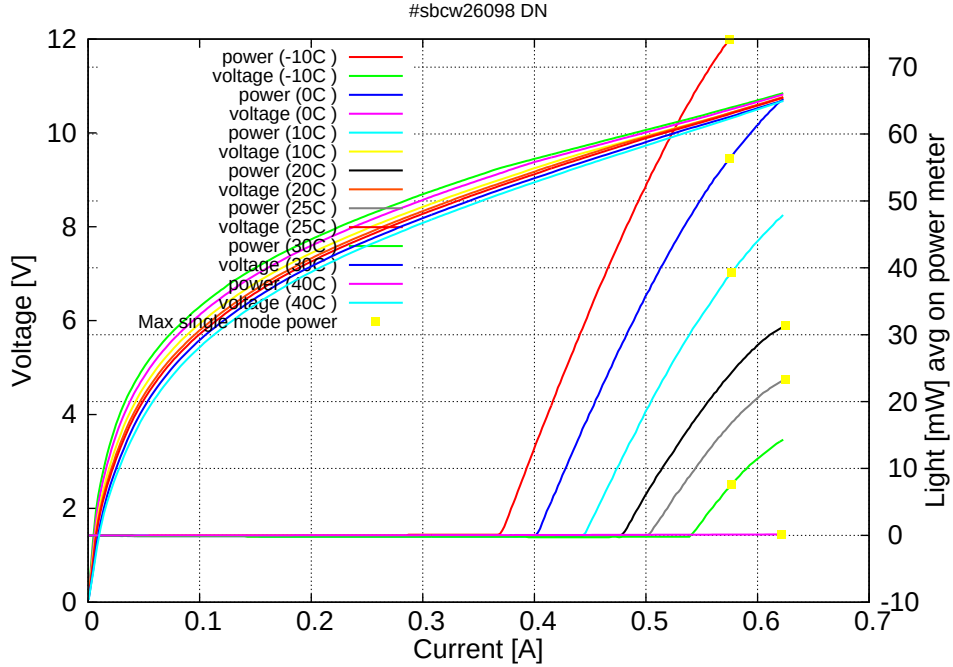


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -10C: $I_{th}=0.37A$ / $V_{th}=9.2V$ (2-wires measurements). Maximum operation current: 0.58A between -10C and 10C, 0.625A between 20C and 40C.

Figure 3: spectra at different temperatures for various DC currents

