

Datasheet for #sbcw22577 DN

Recommendations:

Please read the User Manual and have a look at the FAQ at
<http://www.alpeslasers.ch/?a=142>

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.

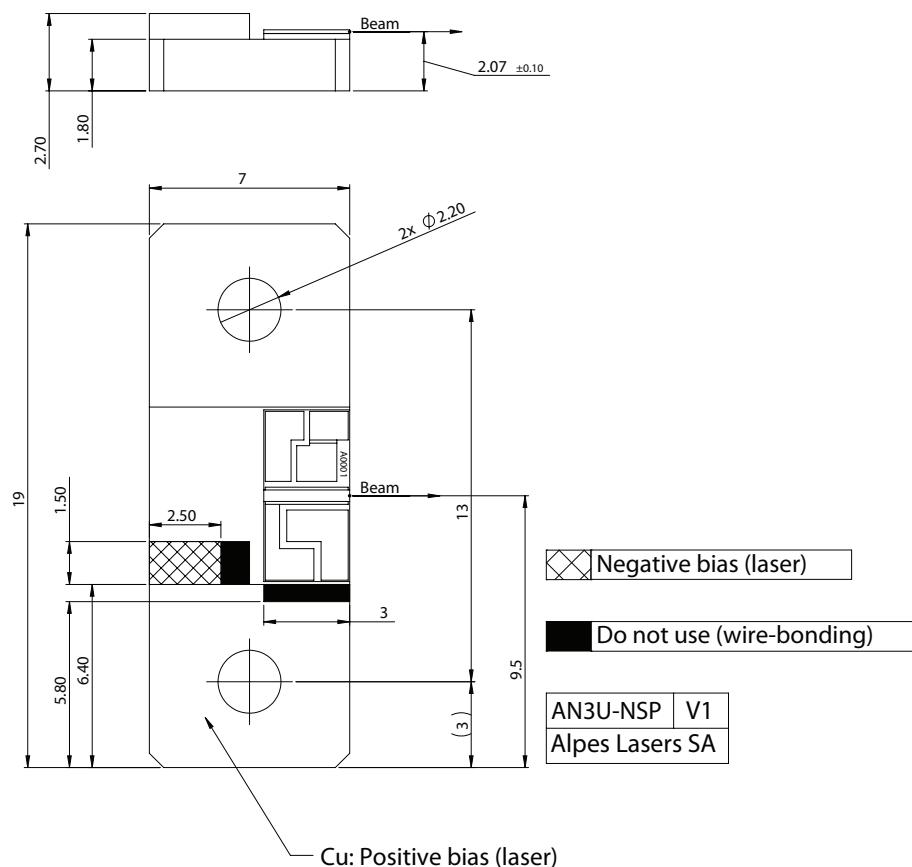


Figure 1: Mechanical and electrical interface for #sbcw22577 DN

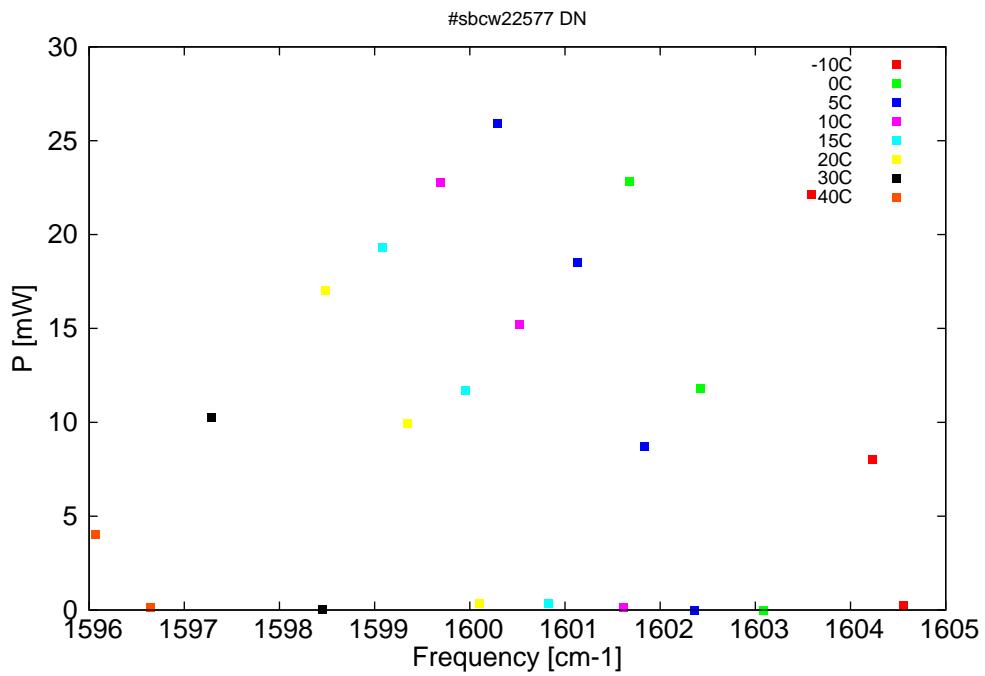


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

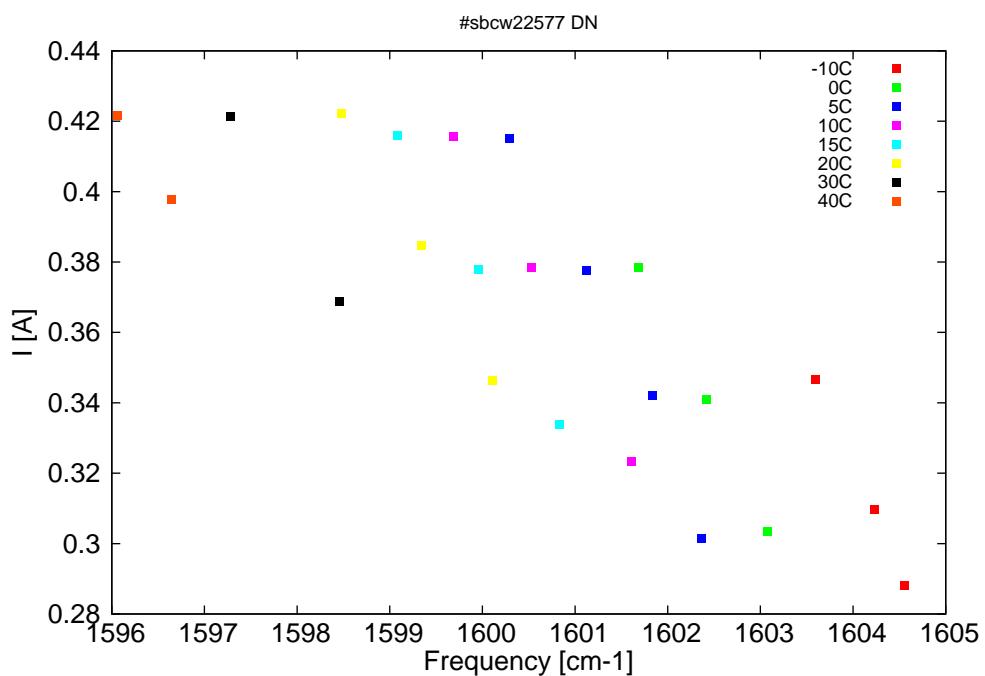


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm $^{-1}$]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
6232.3	1604.6	0.3	-10	8.82	0.288
6233.5	1604.2	8	-10	8.96	0.31
6236	1603.6	22.1	-10	9.21	0.347
6238	1603.1	0	0	8.93	0.303
6240.6	1602.4	11.8	0	9.2	0.341
6243.4	1601.7	22.8	0	9.46	0.378
6240.8	1602.4	0	5	8.97	0.301
6242.8	1601.8	8.7	5	9.17	0.342
6245.6	1601.1	18.5	5	9.43	0.378
6248.9	1600.3	25.9	5	9.73	0.415
6243.7	1601.6	0.1	10	9.01	0.323
6247.9	1600.5	15.2	10	9.41	0.378
6251.2	1599.7	22.8	10	9.7	0.416
6246.8	1600.8	0.3	15	9.06	0.334
6250.2	1600	11.7	15	9.38	0.378
6253.6	1599.1	19.3	15	9.68	0.416
6249.6	1600.1	0.4	20	9.06	0.346
6252.6	1599.3	10	20	9.34	0.385
6255.9	1598.5	17	20	9.64	0.422
6256	1598.5	0	30	9.19	0.369
6260.6	1597.3	10.3	30	9.59	0.421
6263.1	1596.6	0.1	40	9.36	0.398
6265.4	1596.1	4	40	9.55	0.422

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

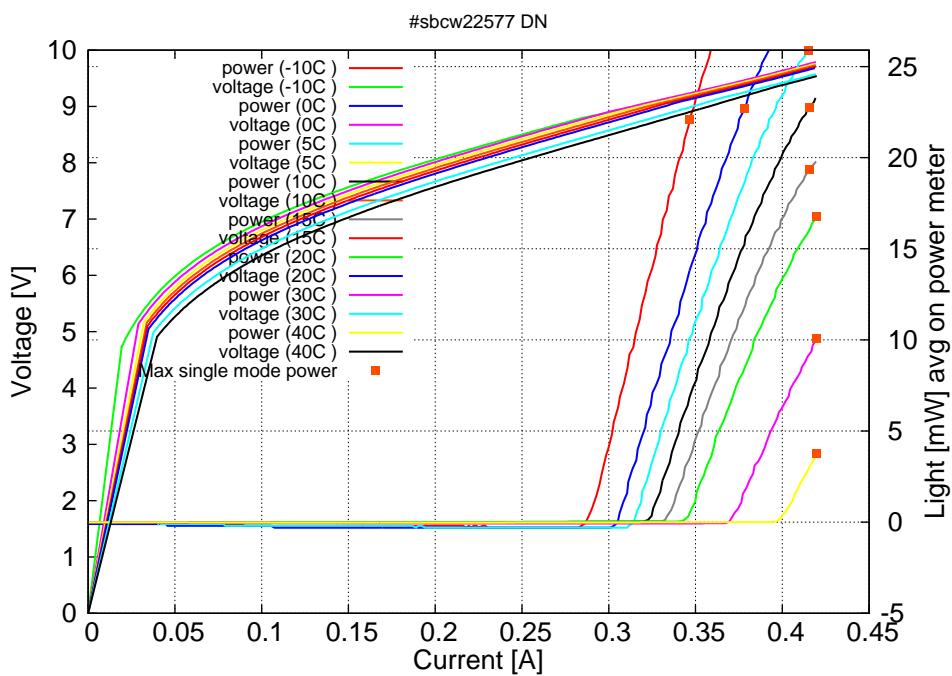


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -10C: $I_{th}=0.28A$ / $V_{th}=8.8V$ (2-wires measurements). Maximum operation current: 0.35A at -10C, 0.38A at 0C, 0.415A between 5C and 15C, 0.42A between 20C and 40C.

Figure 3: spectra at different temperatures for various DC currents

