

Datasheet for #sbcw26150 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.

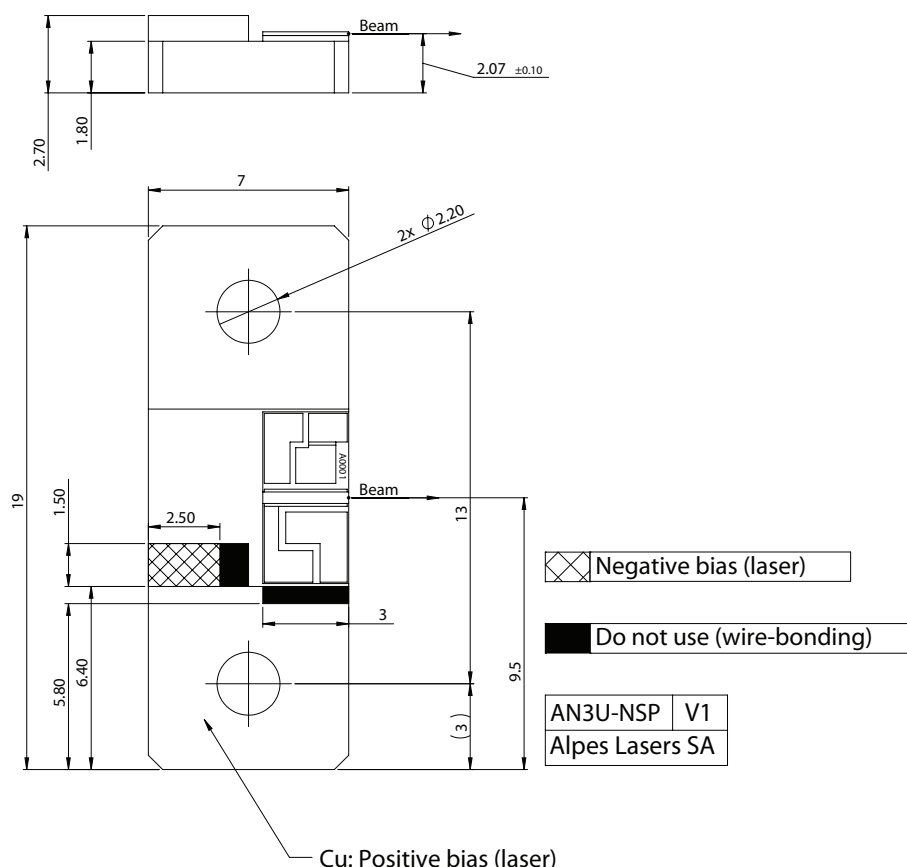


Figure 1: Mechanical and electrical interface for #sbcw26150 DN

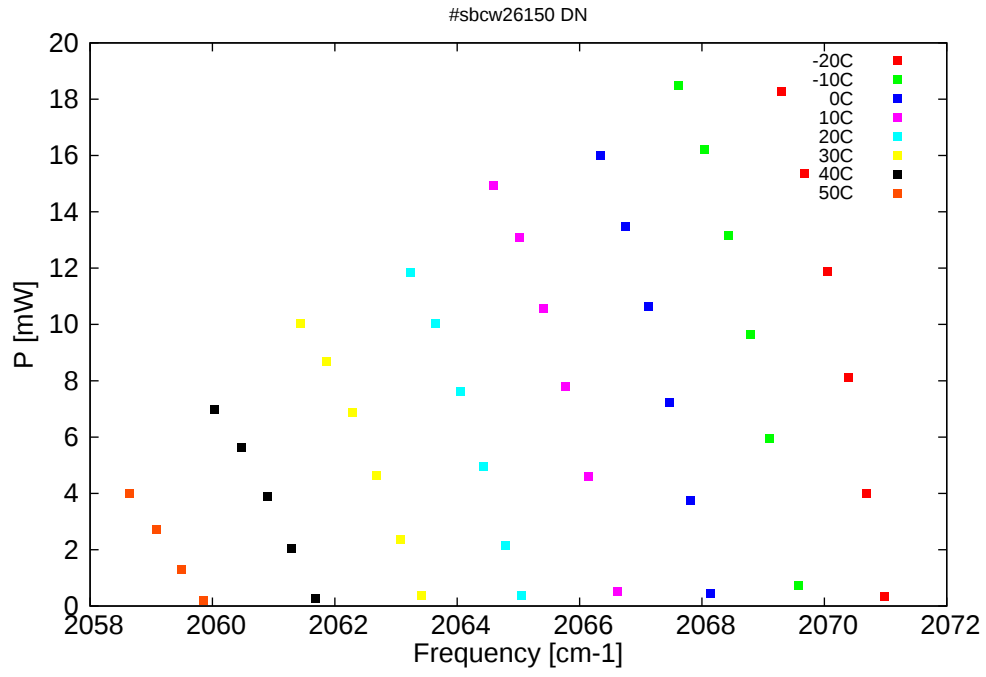


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

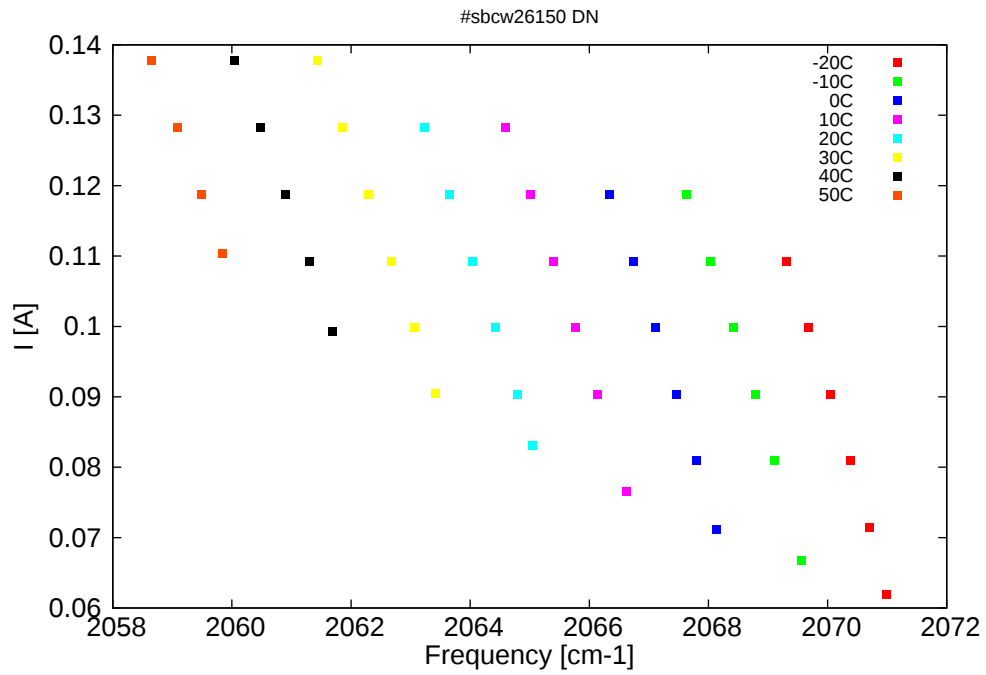


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
4828.6	2071	0.3	-20	12.64	0.062
4829.3	2070.7	4	-20	12.96	0.071
4830	2070.4	8.1	-20	13.28	0.081
4830.8	2070	11.9	-20	13.62	0.09
4831.7	2069.7	15.4	-20	13.98	0.1
4832.5	2069.3	18.3	-20	14.37	0.109
4831.9	2069.6	0.7	-10	12.65	0.067
4833	2069.1	5.9	-10	13.1	0.081
4833.8	2068.8	9.6	-10	13.42	0.09
4834.6	2068.4	13.2	-10	13.75	0.1
4835.5	2068	16.2	-10	14.11	0.109
4836.5	2067.6	18.5	-10	14.49	0.119
4835.3	2068.1	0.5	0	12.65	0.071
4836	2067.8	3.8	0	12.94	0.081
4836.8	2067.5	7.2	0	13.24	0.09
4837.7	2067.1	10.6	0	13.55	0.1
4838.5	2066.7	13.5	0	13.87	0.109
4839.5	2066.3	16	0	14.23	0.119
4838.8	2066.6	0.5	10	12.68	0.077
4839.9	2066.1	4.6	10	13.08	0.09
4840.8	2065.8	7.8	10	13.37	0.1
4841.7	2065.4	10.6	10	13.68	0.109
4842.6	2065	13.1	10	13.99	0.119
4843.6	2064.6	14.9	10	14.34	0.128
4842.5	2065	0.4	20	12.75	0.083
4843.1	2064.8	2.1	20	12.95	0.09
4843.9	2064.4	5	20	13.22	0.1
4844.9	2064	7.6	20	13.5	0.109
4845.8	2063.6	10	20	13.79	0.119
4846.7	2063.2	11.9	20	14.11	0.128
4846.3	2063.4	0.4	30	12.84	0.091
4847.2	2063.1	2.4	30	13.08	0.1
4848.1	2062.7	4.7	30	13.34	0.109
4849	2062.3	6.9	30	13.62	0.119
4850	2061.9	8.7	30	13.9	0.128
4851	2061.4	10	30	14.2	0.138
4850.4	2061.7	0.3	40	12.97	0.099
4851.3	2061.3	2	40	13.21	0.109
4852.2	2060.9	3.9	40	13.46	0.119
4853.2	2060.5	5.6	40	13.73	0.128
4854.3	2060	7	40	14	0.138
4854.7	2059.8	0.2	50	13.13	0.11
4855.6	2059.5	1.3	50	13.33	0.119
4856.5	2059.1	2.7	50	13.58	0.128
4857.6	2058.6	4	50	13.82	0.138

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

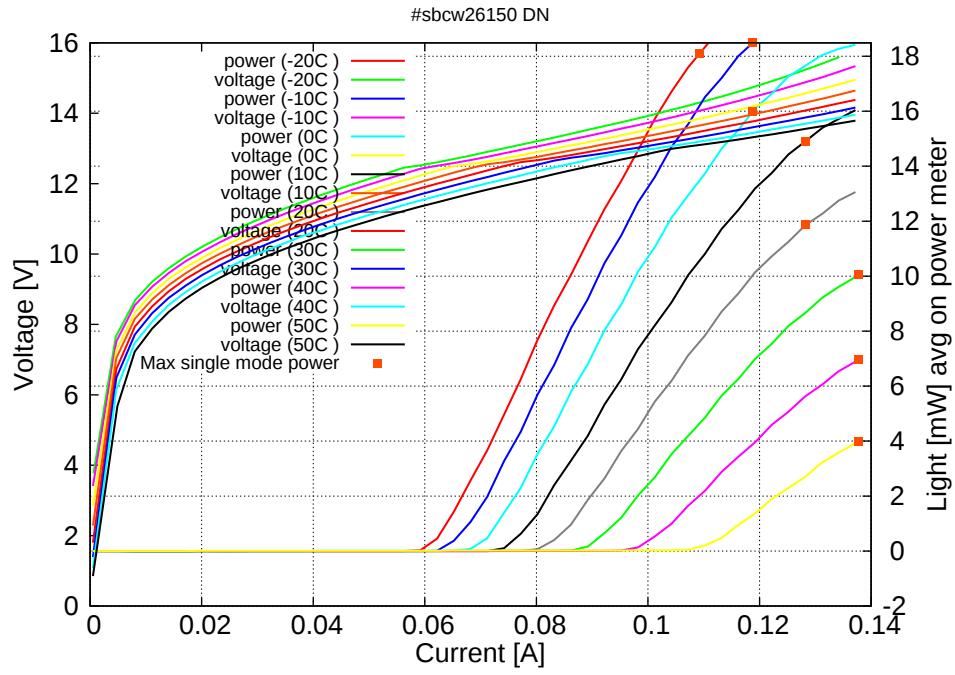


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.06A$ / $V_{th}=12.6V$ (2-wires measurements). Maximum operation current: 0.11A at -20C, 0.12A between -10C and 0C, 0.13A between 10C and 20C, 0.14A between 30C and 50C.

Figure 3: spectra at different temperatures for various DC currents

