

Datasheet for #sbcw26050 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.

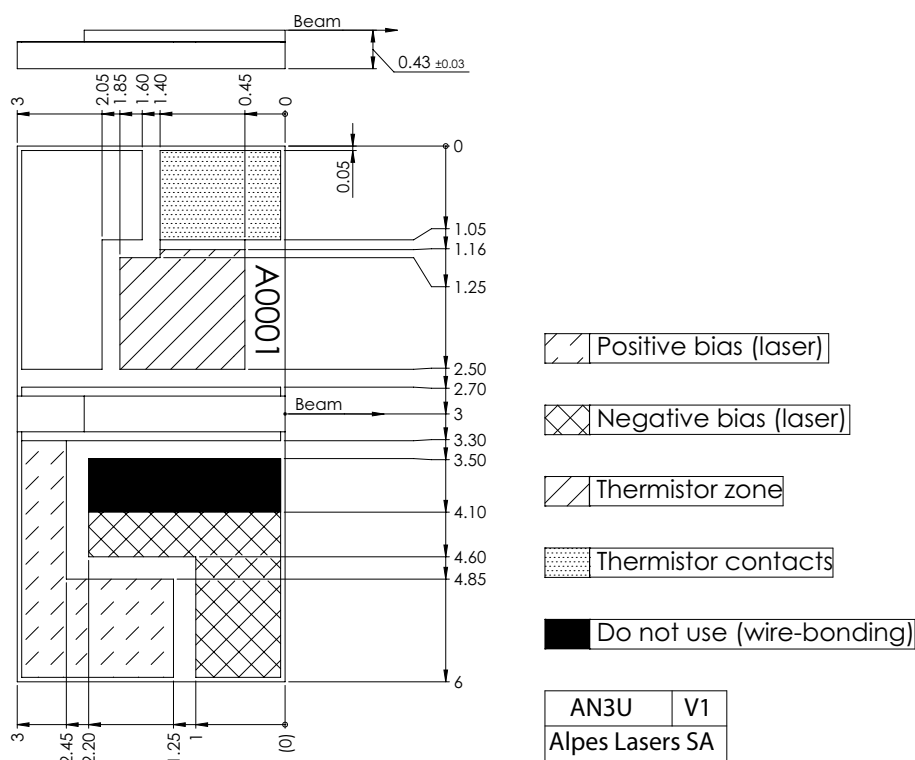


Figure 1: Mechanical and electrical interface for #sbcw26050 DN (please note that AlN submount numbering is A0WJY)

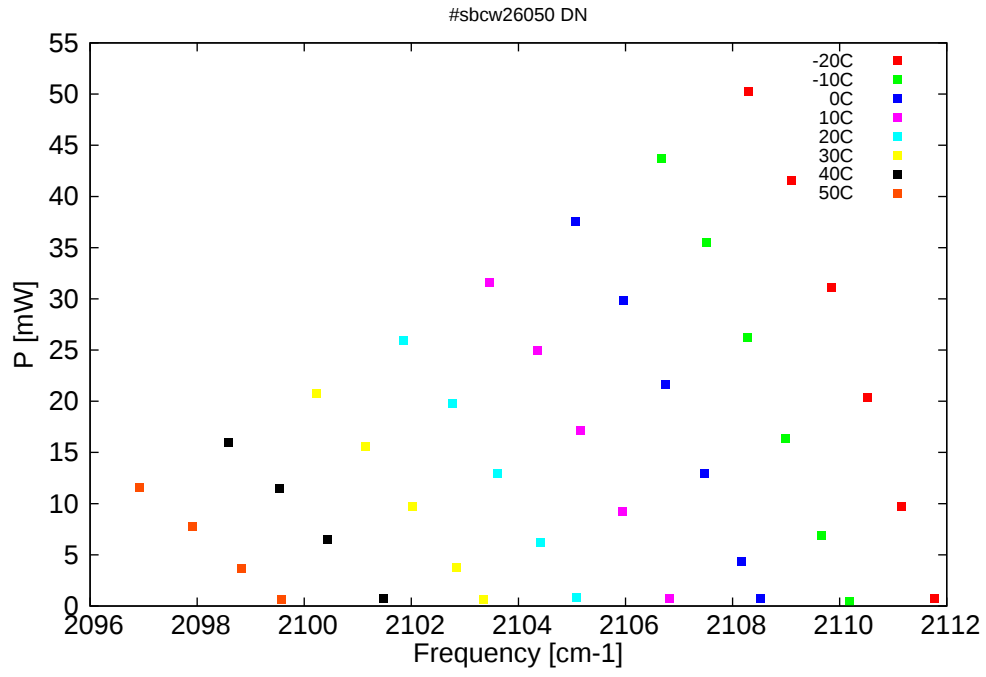


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

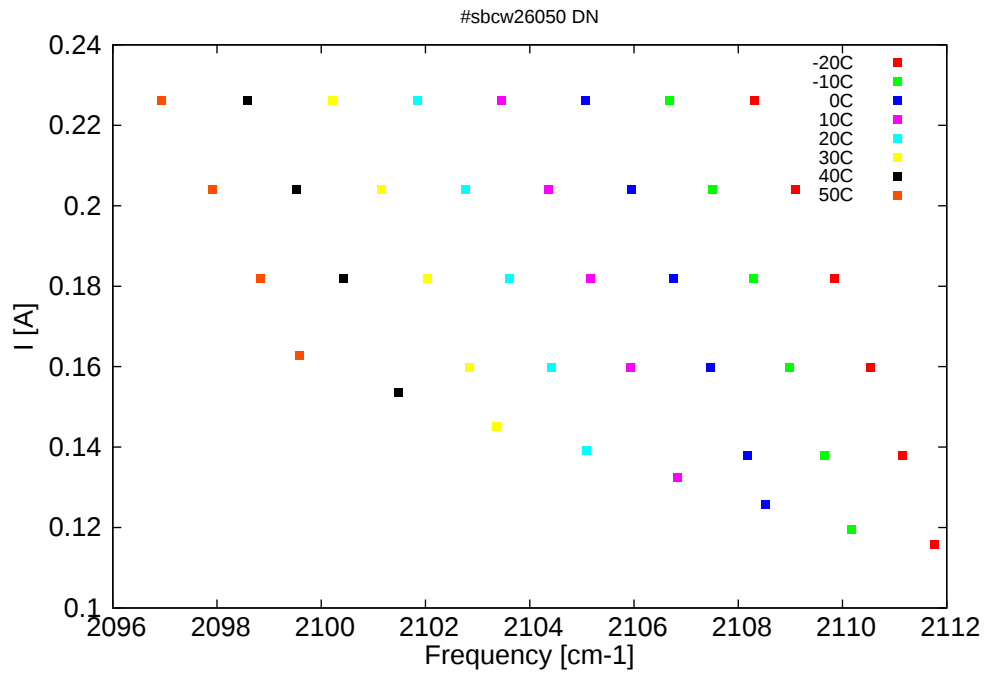


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
4735.4	2111.8	0.7	-20	11.77	0.116
4736.7	2111.2	9.8	-20	11.98	0.138
4738.2	2110.5	20.4	-20	12.23	0.16
4739.7	2109.8	31.1	-20	12.49	0.182
4741.4	2109.1	41.5	-20	12.78	0.204
4743.1	2108.3	50.3	-20	13.1	0.226
4738.9	2110.2	0.4	-10	11.8	0.12
4740.1	2109.7	6.8	-10	12	0.138
4741.6	2109	16.3	-10	12.27	0.16
4743.2	2108.3	26.2	-10	12.55	0.182
4744.9	2107.5	35.5	-10	12.85	0.204
4746.8	2106.7	43.7	-10	13.14	0.226
4742.6	2108.5	0.7	0	11.76	0.126
4743.5	2108.2	4.4	0	11.88	0.138
4745	2107.5	12.9	0	12.11	0.16
4746.6	2106.8	21.7	0	12.38	0.182
4748.4	2106	29.8	0	12.67	0.204
4750.4	2105.1	37.6	0	12.99	0.226
4746.5	2106.8	0.7	10	11.77	0.133
4748.5	2105.9	9.2	10	12.06	0.16
4750.2	2105.2	17.1	10	12.31	0.182
4752	2104.4	25	10	12.57	0.204
4754.1	2103.5	31.6	10	12.87	0.226
4750.4	2105.1	0.8	20	11.67	0.139
4751.9	2104.4	6.2	20	11.89	0.16
4753.7	2103.6	13	20	12.14	0.182
4755.6	2102.8	19.7	20	12.42	0.204
4757.7	2101.9	25.9	20	12.71	0.226
4754.3	2103.4	0.6	30	11.52	0.145
4755.5	2102.8	3.8	30	11.67	0.16
4757.3	2102	9.7	30	11.92	0.182
4759.3	2101.2	15.6	30	12.19	0.204
4761.4	2100.2	20.7	30	12.49	0.226
4758.6	2101.5	0.8	40	11.51	0.154
4760.9	2100.4	6.5	40	11.81	0.182
4763	2099.5	11.5	40	12.07	0.204
4765.1	2098.6	16	40	12.36	0.226
4762.9	2099.6	0.7	50	11.52	0.163
4764.6	2098.8	3.6	50	11.73	0.182
4766.6	2097.9	7.7	50	11.98	0.204
4768.9	2096.9	11.6	50	12.26	0.226

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

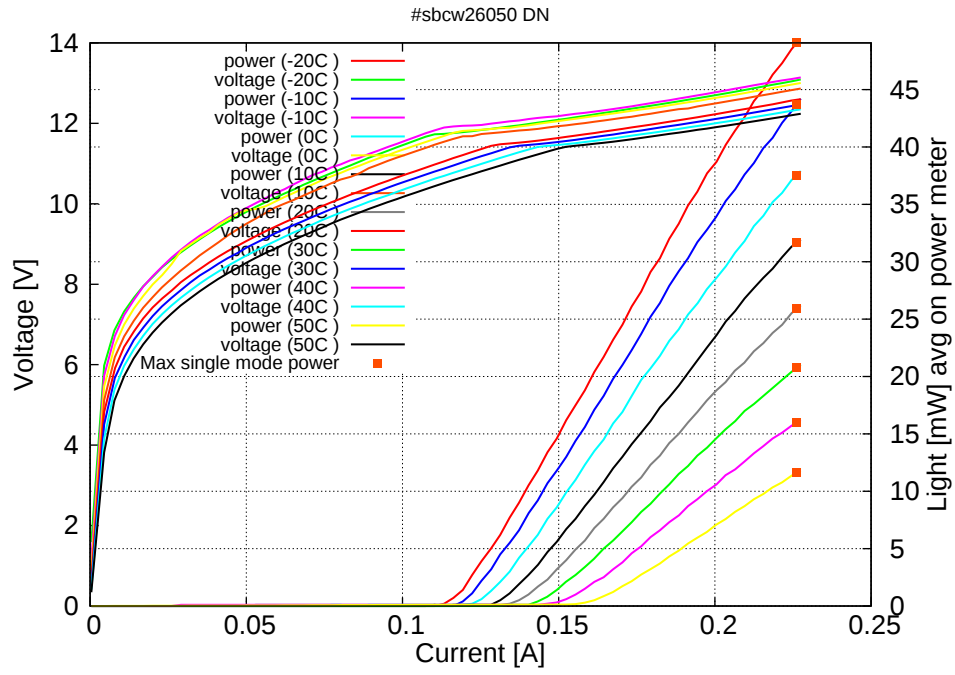


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.11A$ / $V_{th}=11.8V$ (2-wires measurements). Maximum operation current: 0.23A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

