

Datasheet for #sbcw26124 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 #sbcw26124 DN (please note that AlN submount numbering is A0U3R)

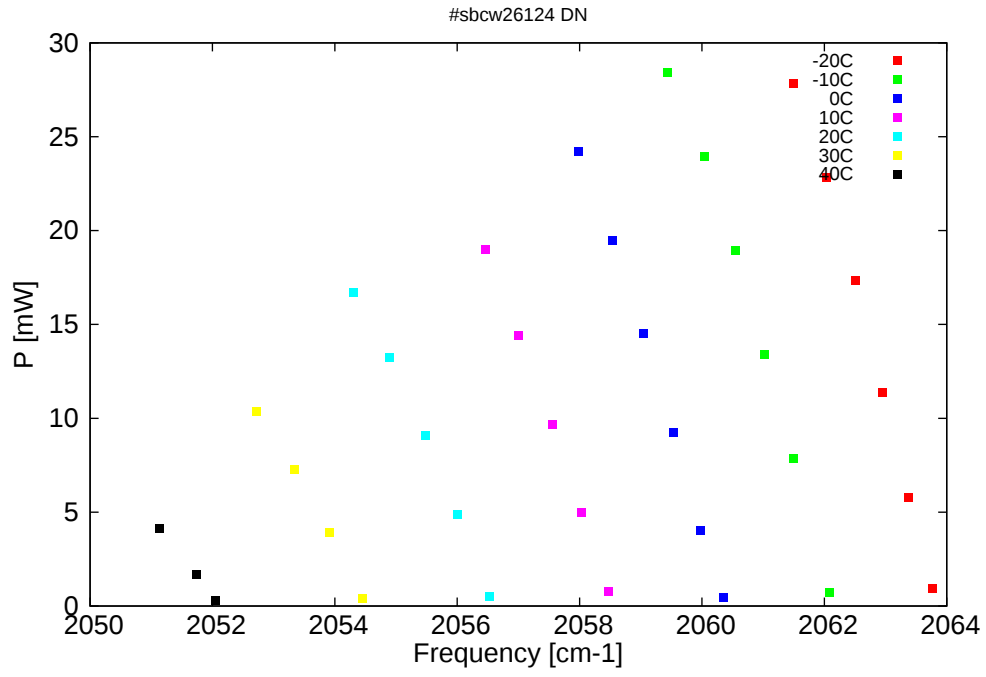


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

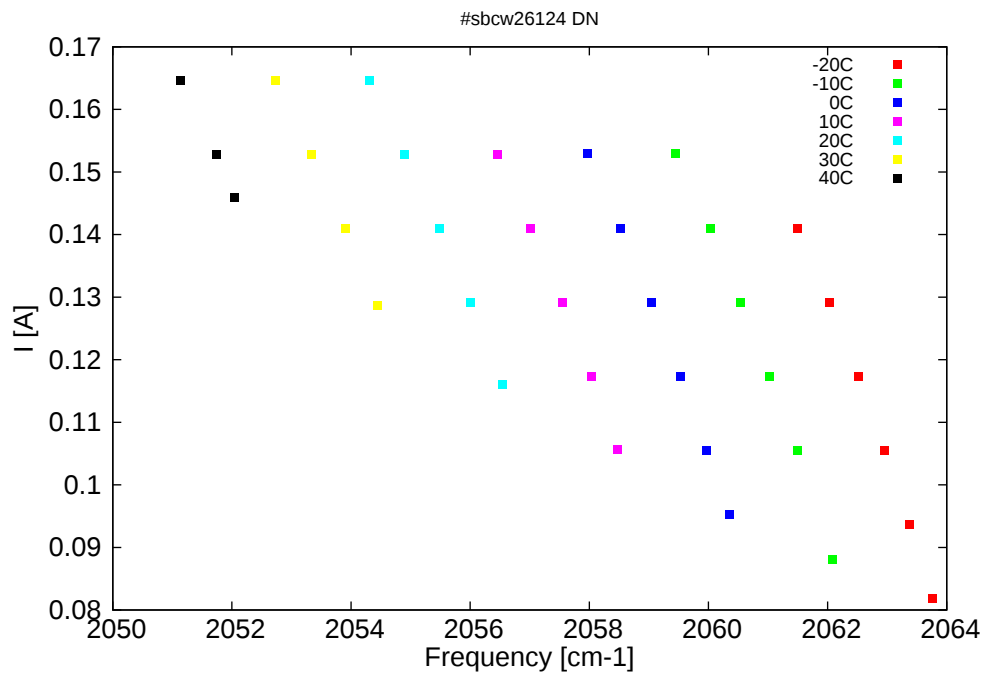


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
4845.5	2063.8	0.9	-20	12.59	0.082
4846.4	2063.4	5.8	-20	12.93	0.094
4847.4	2063	11.4	-20	13.28	0.106
4848.5	2062.5	17.3	-20	13.64	0.117
4849.6	2062	22.8	-20	14.03	0.129
4850.8	2061.5	27.8	-20	14.46	0.141
4849.5	2062.1	0.7	-10	12.59	0.088
4850.9	2061.5	7.8	-10	13.07	0.106
4852	2061	13.4	-10	13.4	0.117
4853.1	2060.5	19	-10	13.76	0.129
4854.3	2060	24	-10	14.14	0.141
4855.7	2059.4	28.4	-10	14.55	0.153
4853.5	2060.4	0.4	0	12.63	0.095
4854.4	2060	4	0	12.89	0.106
4855.5	2059.5	9.2	0	13.2	0.117
4856.6	2059	14.5	0	13.54	0.129
4857.8	2058.5	19.5	0	13.88	0.141
4859.1	2058	24.2	0	14.26	0.153
4858	2058.5	0.8	10	12.75	0.106
4859	2058	5	10	13.05	0.117
4860.1	2057.6	9.7	10	13.35	0.129
4861.4	2057	14.4	10	13.67	0.141
4862.7	2056.5	19	10	14.01	0.153
4862.5	2056.5	0.5	20	12.89	0.116
4863.8	2056	4.9	20	13.2	0.129
4865	2055.5	9.1	20	13.5	0.141
4866.4	2054.9	13.2	20	13.81	0.153
4867.8	2054.3	16.7	20	14.15	0.165
4867.5	2054.4	0.4	30	13.07	0.129
4868.8	2053.9	3.9	30	13.35	0.141
4870.1	2053.3	7.3	30	13.64	0.153
4871.6	2052.7	10.3	30	13.95	0.165
4873.2	2052.1	0.3	40	13.37	0.146
4873.9	2051.7	1.7	40	13.53	0.153
4875.4	2051.1	4.1	40	13.81	0.165

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

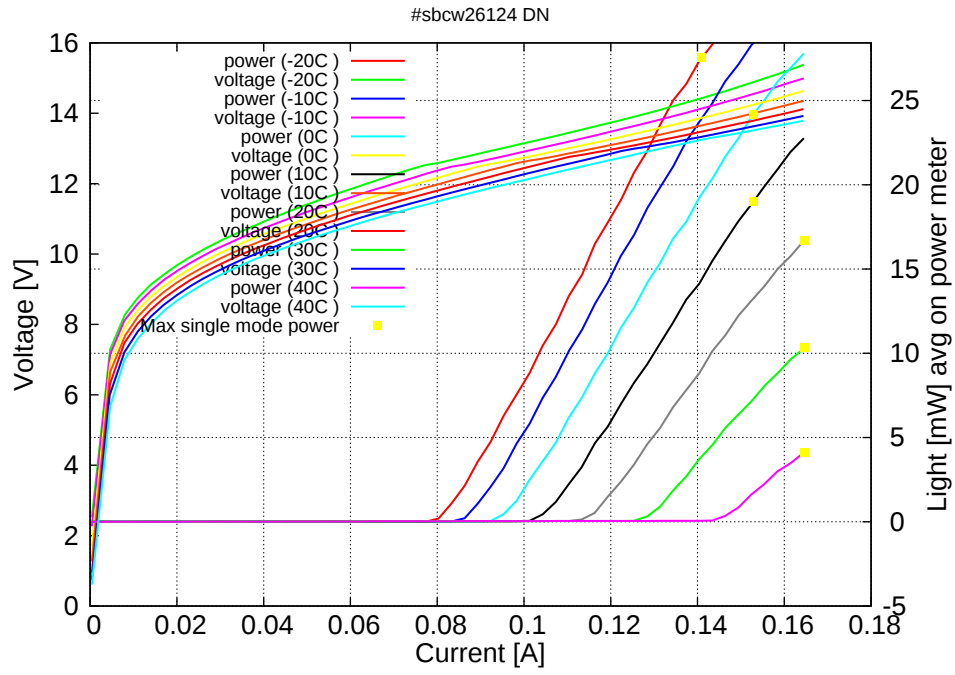


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.08A$ / $V_{th}=12.5V$ (2-wires measurements). Maximum operation current: 0.14A at -20C, 0.155A between -10C and 10C, 0.165A between 20C and 40C.

Figure 3: spectra at different temperatures for various DC currents

