

Datasheet for #sbcw26059 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 #sbcw26059 DN (please note that AlN submount numbering is A0WJE)

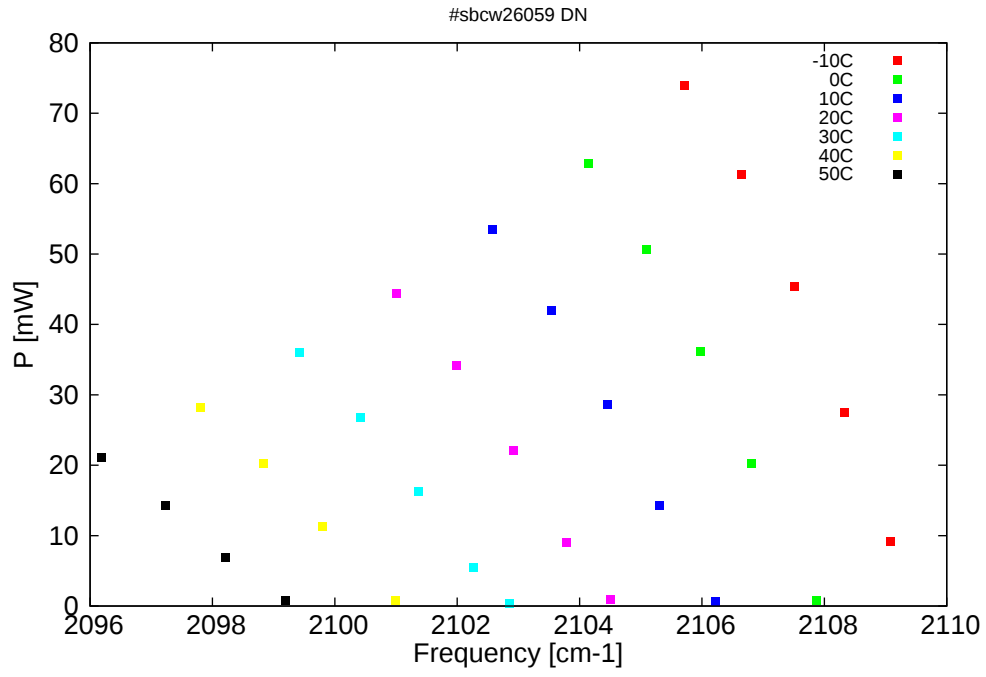


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

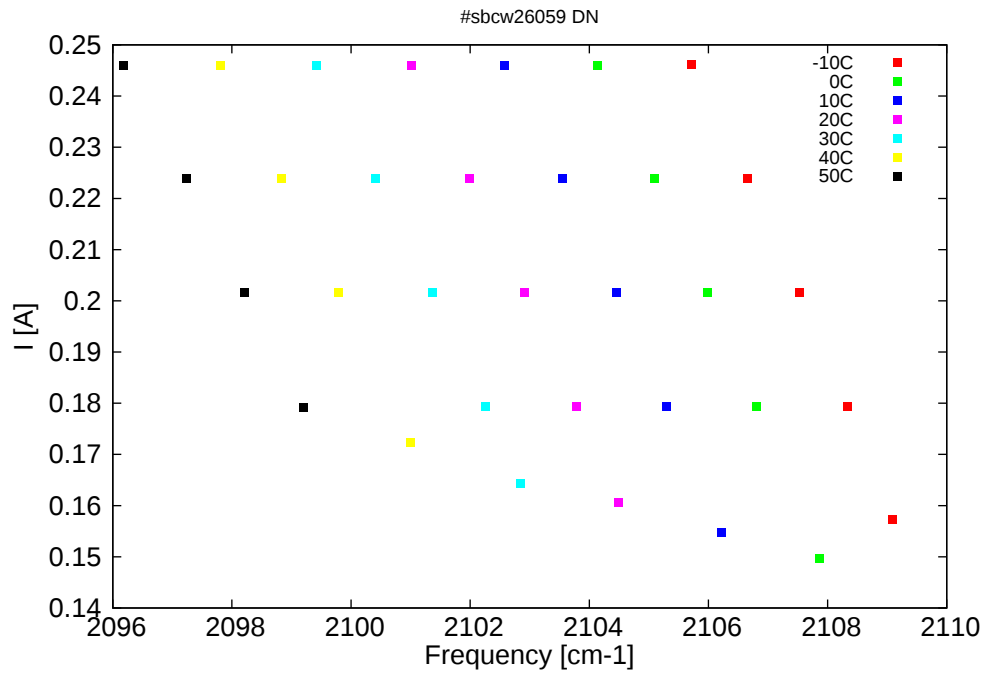


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
4741.4	2109.1	9.2	-10	12.81	0.157
4743.1	2108.3	27.5	-10	13.11	0.179
4744.9	2107.5	45.4	-10	13.43	0.202
4746.9	2106.7	61.3	-10	13.76	0.224
4749	2105.7	73.9	-10	14.12	0.246
4744.1	2107.9	0.8	0	12.6	0.15
4746.5	2106.8	20.2	0	12.98	0.179
4748.4	2106	36.1	0	13.29	0.202
4750.4	2105.1	50.6	0	13.61	0.224
4752.5	2104.1	62.9	0	13.94	0.246
4747.9	2106.2	0.7	10	12.53	0.155
4749.9	2105.3	14.3	10	12.84	0.179
4751.8	2104.5	28.6	10	13.14	0.202
4753.9	2103.5	42	10	13.45	0.224
4756.1	2102.6	53.5	10	13.76	0.246
4751.7	2104.5	1	20	12.47	0.161
4753.3	2103.8	9.1	20	12.7	0.179
4755.3	2102.9	22.1	20	12.99	0.202
4757.4	2102	34.1	20	13.29	0.224
4759.6	2101	44.3	20	13.6	0.246
4755.5	2102.8	0.4	30	12.38	0.164
4756.8	2102.3	5.5	30	12.56	0.179
4758.8	2101.4	16.2	30	12.85	0.202
4761	2100.4	26.8	30	13.14	0.224
4763.2	2099.4	36	30	13.43	0.246
4759.7	2101	0.8	40	12.35	0.172
4762.4	2099.8	11.2	40	12.7	0.202
4764.6	2098.8	20.2	40	12.98	0.224
4766.9	2097.8	28.1	40	13.27	0.246
4763.7	2099.2	0.9	50	12.29	0.179
4766	2098.2	6.9	50	12.55	0.202
4768.2	2097.2	14.3	50	12.83	0.224
4770.6	2096.2	21	50	13.12	0.246

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

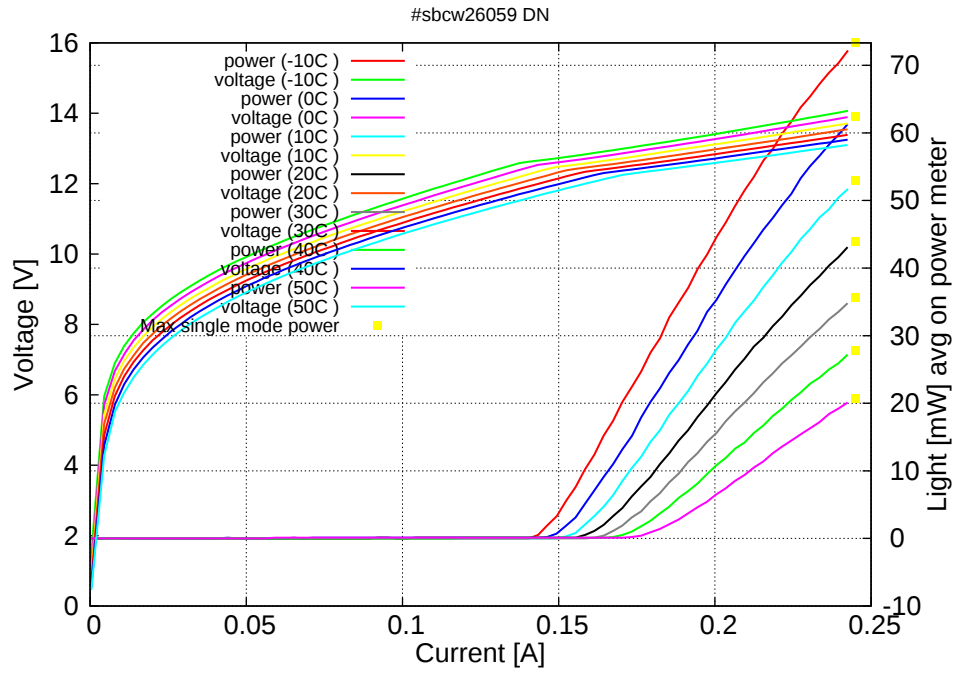


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -10C: $I_{th}=0.14A$ / $V_{th}=12.7V$ (2-wires measurements). Maximum operation current: 0.245A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

