

**Datasheet for #sbcw23729 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 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 #sbcw23729 DN (please note that AlN submount numbering is A12PG)

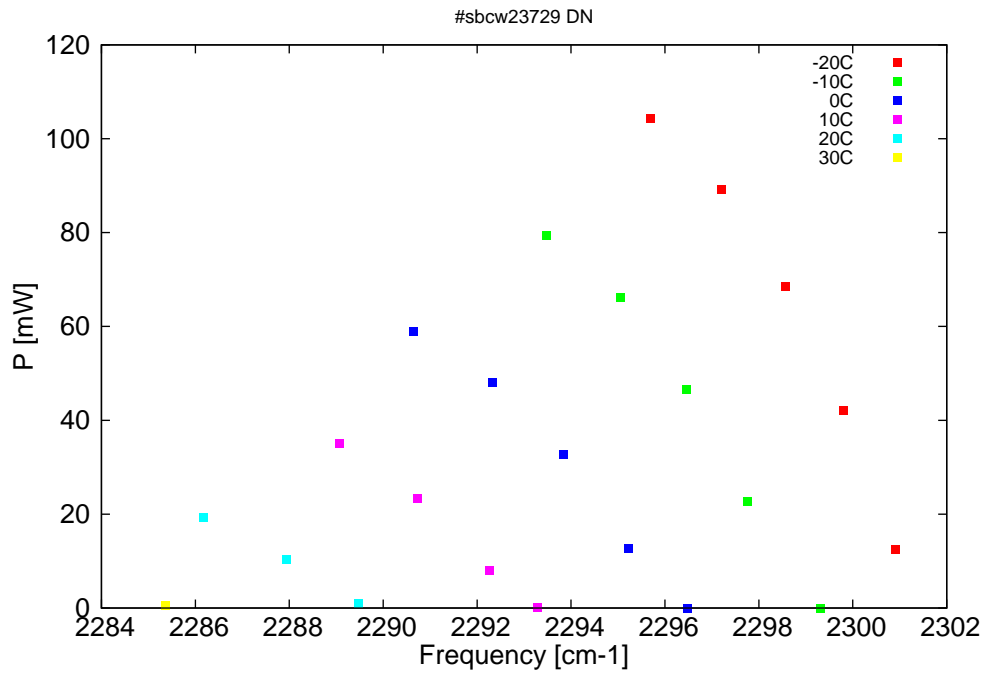


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

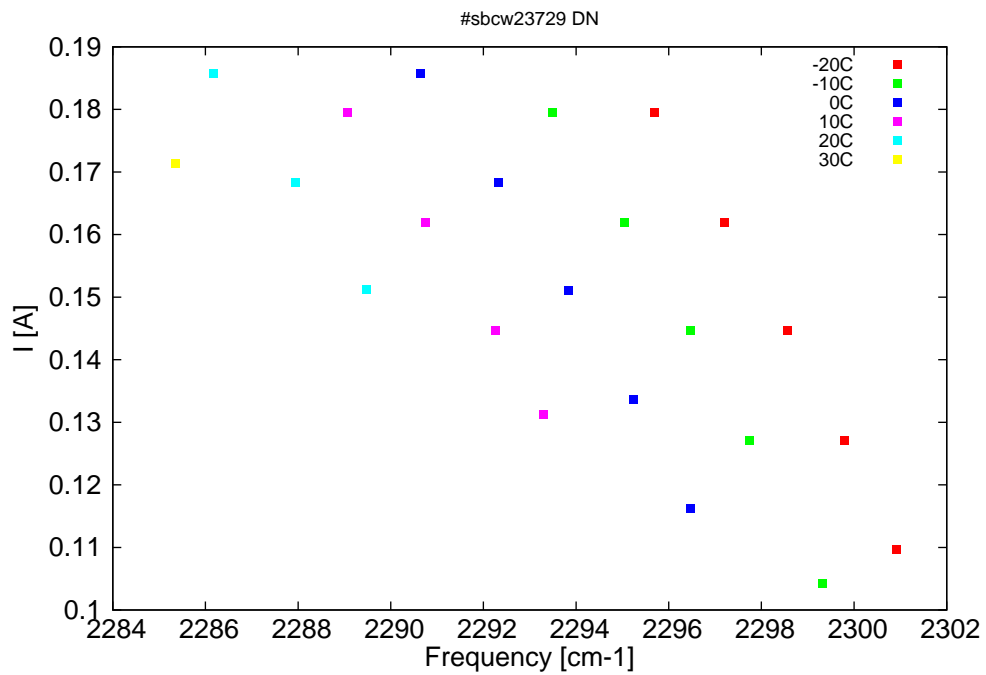


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
4346.1	2300.9	12.6	-20	12.49	0.11
4348.2	2299.8	42	-20	12.72	0.127
4350.5	2298.6	68.5	-20	12.96	0.145
4353.1	2297.2	89.3	-20	13.18	0.162
4356	2295.7	104.2	-20	13.41	0.18
4349.1	2299.3	0	-10	12.35	0.104
4352.1	2297.8	22.6	-10	12.62	0.127
4354.5	2296.5	46.6	-10	12.85	0.145
4357.2	2295.1	66.1	-10	13.08	0.162
4360.2	2293.5	79.3	-10	13.31	0.18
4354.5	2296.5	0	0	12.43	0.116
4356.9	2295.2	12.6	0	12.62	0.134
4359.5	2293.8	32.7	0	12.85	0.151
4362.4	2292.3	48.1	0	13.07	0.168
4365.6	2290.6	58.9	0	13.3	0.186
4360.6	2293.3	0.1	10	12.54	0.131
4362.5	2292.3	7.9	10	12.68	0.145
4365.4	2290.7	23.4	10	12.9	0.162
4368.6	2289.1	35	10	13.13	0.18
4367.8	2289.5	0.9	20	12.71	0.151
4370.7	2287.9	10.3	20	12.91	0.168
4374.1	2286.2	19.3	20	13.13	0.186
4375.7	2285.4	0.6	30	12.91	0.171

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

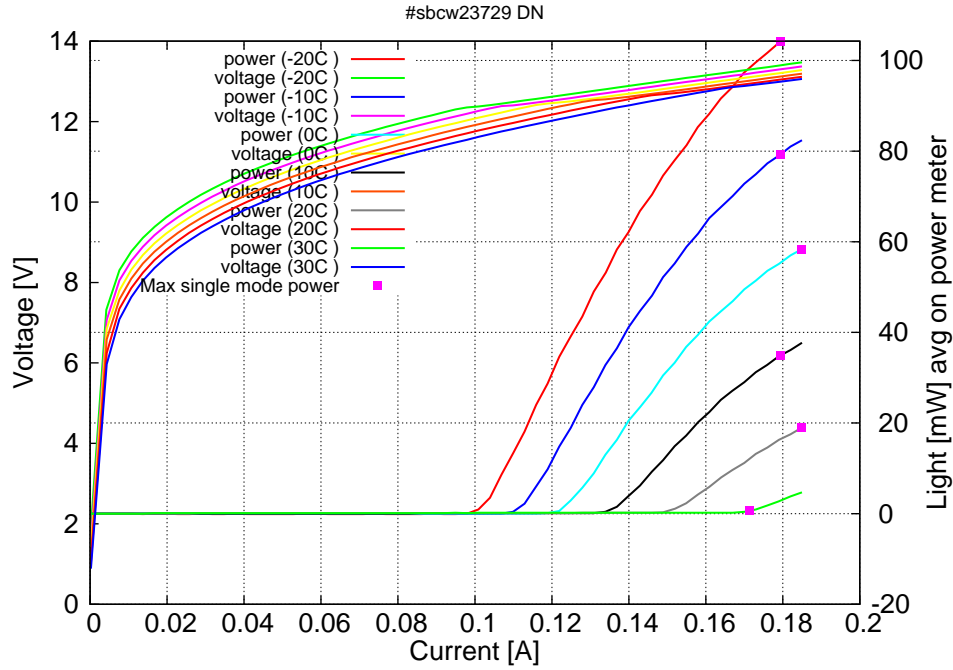


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.10A$  /  $V_{th}=12.4V$  (2-wires measurements). Maximum operation current: 0.185A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

