

**Datasheet for #sbcw25388 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 #sbcw25388 DN (please note that AlN submount numbering is A1283)

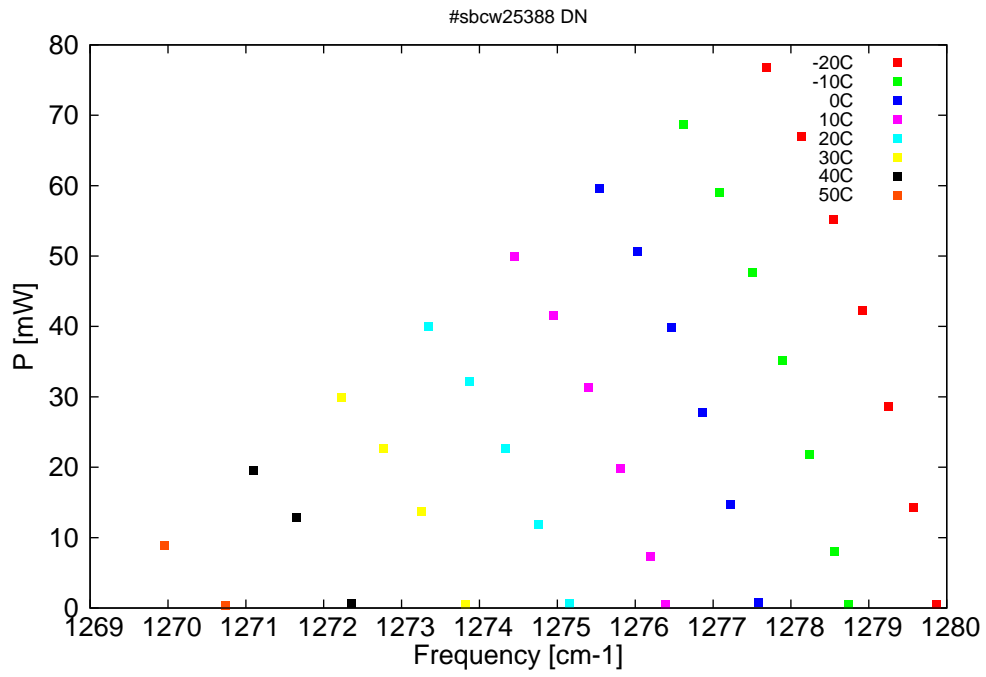


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

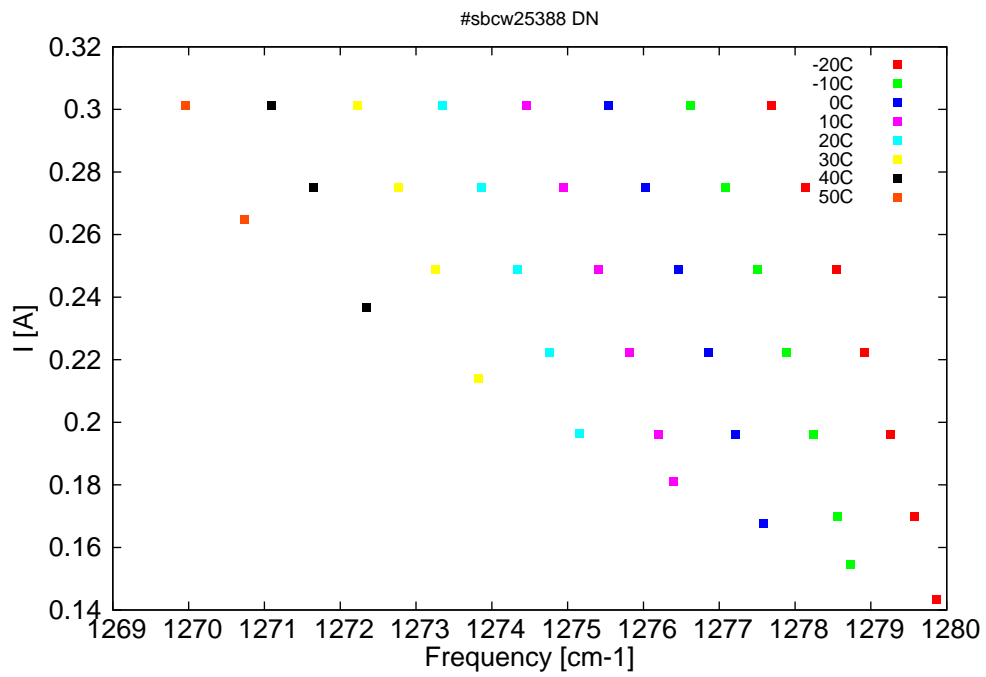


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
7813.3	1279.9	0.5	-20	8.47	0.144
7815.1	1279.6	14.4	-20	8.71	0.17
7817	1279.3	28.6	-20	8.93	0.196
7819.1	1278.9	42.3	-20	9.15	0.222
7821.4	1278.5	55.3	-20	9.37	0.249
7823.9	1278.1	67	-20	9.59	0.275
7826.6	1277.7	76.8	-20	9.83	0.301
7820.2	1278.7	0.4	-10	8.45	0.154
7821.3	1278.6	8.1	-10	8.58	0.17
7823.3	1278.2	21.8	-10	8.81	0.196
7825.4	1277.9	35.1	-10	9.03	0.222
7827.8	1277.5	47.7	-10	9.25	0.249
7830.3	1277.1	59.1	-10	9.47	0.275
7833.2	1276.6	68.7	-10	9.71	0.301
7827.3	1277.6	0.7	0	8.46	0.168
7829.5	1277.2	14.7	0	8.71	0.196
7831.7	1276.9	27.7	0	8.92	0.222
7834.2	1276.5	39.9	0	9.14	0.249
7836.8	1276	50.7	0	9.37	0.275
7839.8	1275.5	59.6	0	9.6	0.301
7834.6	1276.4	0.5	10	8.49	0.181
7835.8	1276.2	7.4	10	8.61	0.196
7838.1	1275.8	19.7	10	8.84	0.222
7840.7	1275.4	31.3	10	9.06	0.249
7843.4	1275	41.6	10	9.28	0.275
7846.5	1274.5	49.9	10	9.52	0.301
7842.2	1275.2	0.7	20	8.54	0.196
7844.6	1274.8	11.8	20	8.76	0.222
7847.2	1274.3	22.7	20	8.98	0.249
7850.1	1273.9	32.2	20	9.21	0.275
7853.3	1273.3	40	20	9.45	0.301
7850.4	1273.8	0.5	30	8.64	0.214
7853.9	1273.3	13.7	30	8.94	0.249
7856.9	1272.8	22.7	30	9.16	0.275
7860.2	1272.2	29.9	30	9.4	0.301
7859.5	1272.4	0.6	40	8.79	0.237
7863.8	1271.7	12.9	40	9.12	0.275
7867.2	1271.1	19.5	40	9.36	0.301
7869.4	1270.7	0.4	50	8.98	0.265
7874.3	1270	8.9	50	9.3	0.301

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

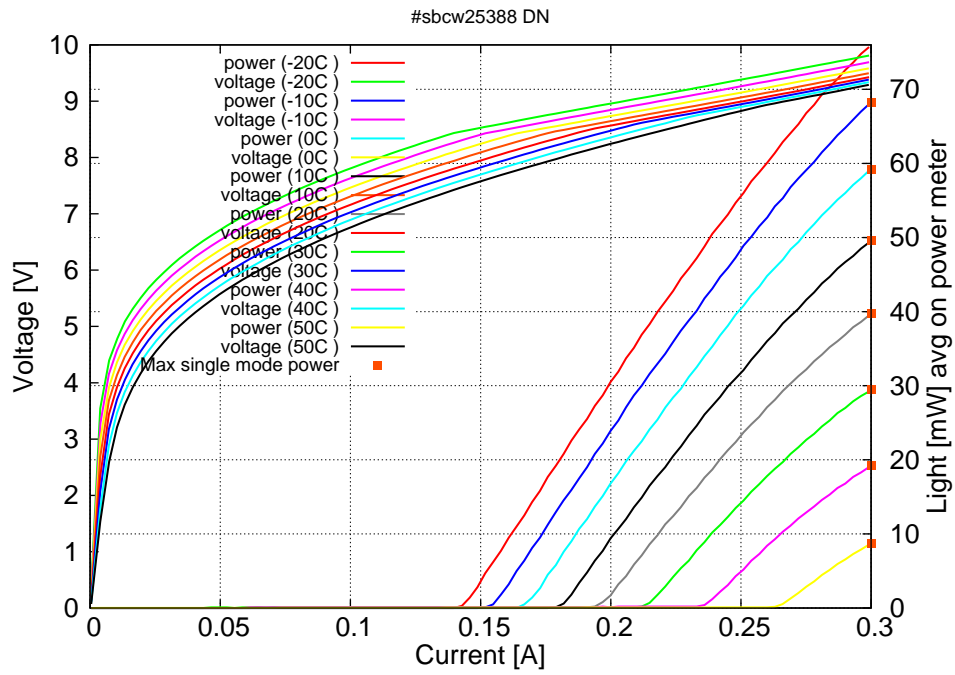


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.14A$  /  $V_{th}=8.5V$  (2-wires measurements). Maximum operation current: 0.30A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

