

**Datasheet for #sbcw27632 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 #sbcw27632 DN (please note that AlN submount numbering is A0V07)

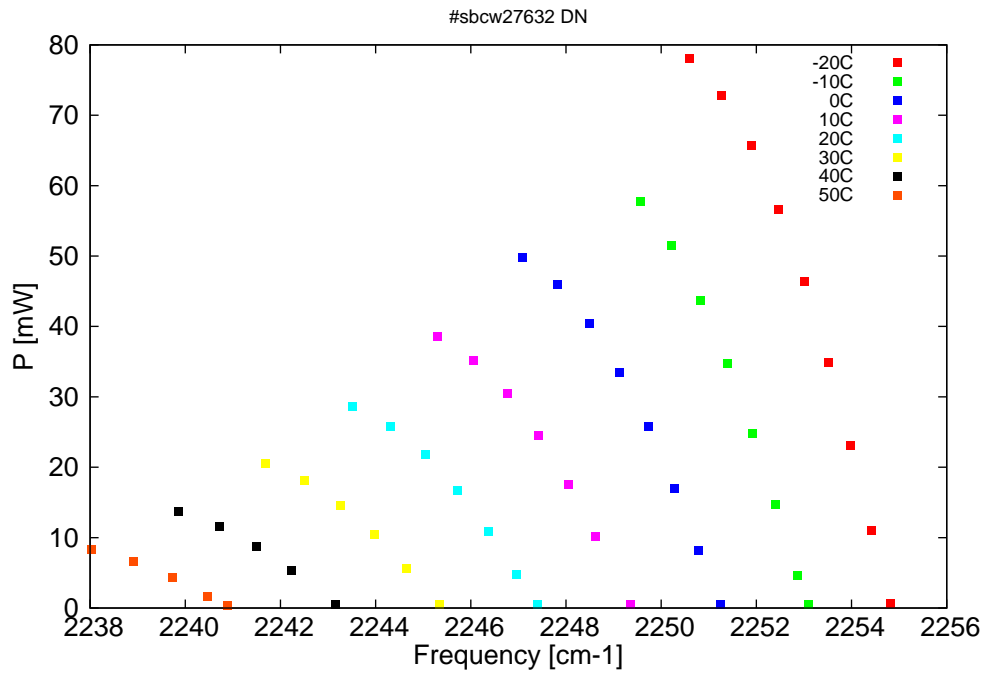


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

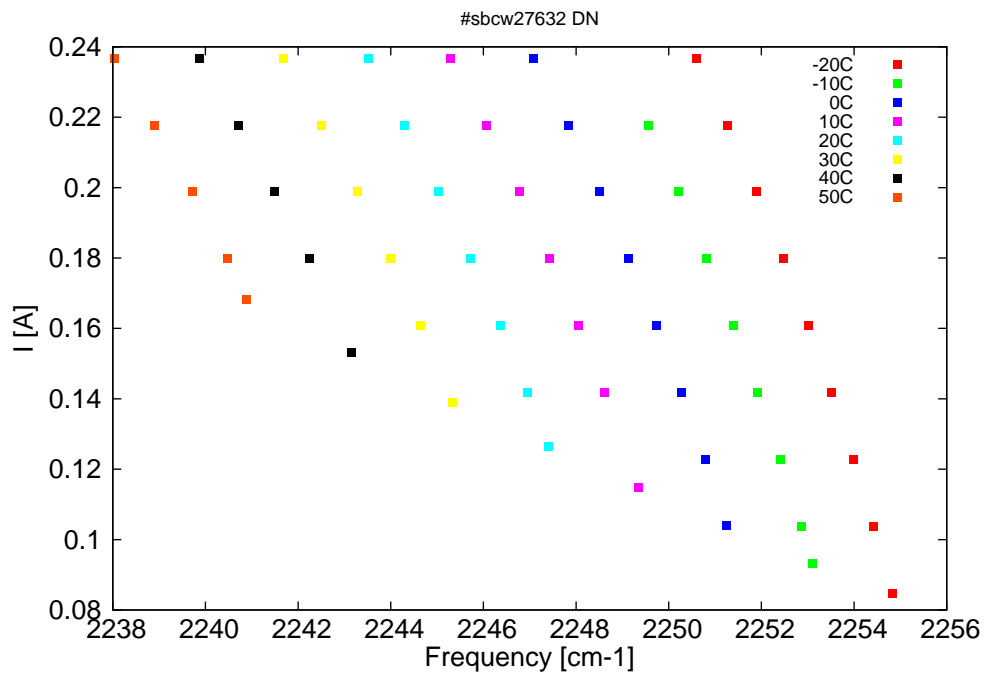


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
4434.9	2254.8	0.7	-20	8.23	0.085
4435.7	2254.4	11.1	-20	8.42	0.104
4436.6	2254	23.1	-20	8.61	0.123
4437.5	2253.5	34.9	-20	8.79	0.142
4438.5	2253	46.4	-20	8.97	0.161
4439.6	2252.5	56.7	-20	9.16	0.18
4440.7	2251.9	65.7	-20	9.35	0.199
4441.9	2251.3	72.8	-20	9.54	0.218
4443.3	2250.6	78.1	-20	9.74	0.237
4438.3	2253.1	0.5	-10	8.28	0.093
4438.8	2252.9	4.6	-10	8.38	0.104
4439.7	2252.4	14.7	-10	8.57	0.123
4440.7	2251.9	24.8	-10	8.76	0.142
4441.7	2251.4	34.7	-10	8.95	0.161
4442.8	2250.8	43.7	-10	9.13	0.18
4444	2250.2	51.5	-10	9.32	0.199
4445.3	2249.6	57.7	-10	9.52	0.218
4442	2251.3	0.6	0	8.36	0.104
4442.9	2250.8	8.2	0	8.54	0.123
4443.9	2250.3	16.9	0	8.73	0.142
4445	2249.7	25.8	0	8.92	0.161
4446.2	2249.1	33.5	0	9.11	0.18
4447.4	2248.5	40.5	0	9.3	0.199
4448.7	2247.8	45.9	0	9.5	0.218
4450.2	2247.1	49.8	0	9.7	0.237
4445.7	2249.4	0.5	10	8.44	0.115
4447.2	2248.6	10.2	10	8.71	0.142
4448.3	2248	17.6	10	8.89	0.161
4449.5	2247.4	24.5	10	9.08	0.18
4450.8	2246.8	30.5	10	9.28	0.199
4452.2	2246.1	35.2	10	9.48	0.218
4453.8	2245.3	38.5	10	9.69	0.237
4449.6	2247.4	0.5	20	8.53	0.126
4450.5	2247	4.8	20	8.69	0.142
4451.6	2246.4	10.9	20	8.87	0.161
4452.9	2245.7	16.7	20	9.06	0.18
4454.3	2245	21.8	20	9.26	0.199
4455.7	2244.3	25.9	20	9.46	0.218
4457.3	2243.5	28.7	20	9.67	0.237
4453.7	2245.3	0.5	30	8.64	0.139
4455	2244.6	5.6	30	8.86	0.161
4456.4	2244	10.4	30	9.05	0.18
4457.8	2243.3	14.6	30	9.25	0.199
4459.3	2242.5	18.2	30	9.45	0.218
4460.9	2241.7	20.5	30	9.66	0.237
4458	2243.2	0.4	40	8.77	0.153
4459.8	2242.2	5.3	40	9.04	0.18
4461.3	2241.5	8.8	40	9.23	0.199
4462.9	2240.7	11.6	40	9.44	0.218

*continued on next page*

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
4464.6	2239.9	13.7	40	9.65	0.237
4462.5	2240.9	0.3	50	8.92	0.168
4463.3	2240.5	1.7	50	9.03	0.18
4464.8	2239.7	4.3	50	9.23	0.199
4466.5	2238.9	6.6	50	9.43	0.218
4468.2	2238	8.3	50	9.65	0.237

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

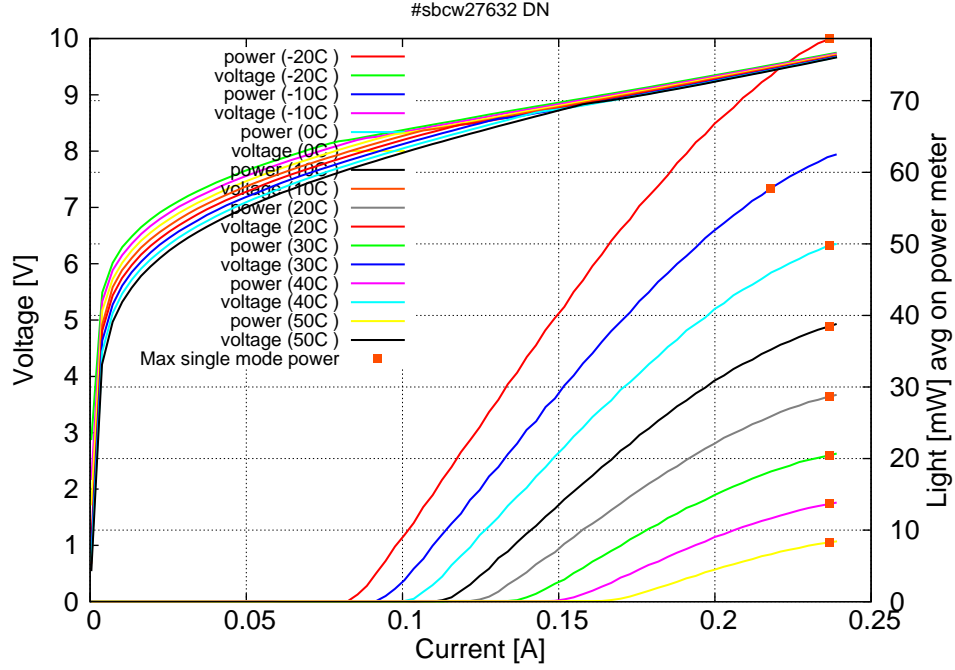


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.08A$  /  $V_{th}=8.2V$  (2-wires measurements). Maximum operation current: 0.24A for all temperatures.

