

Datasheet for #sbcw27229 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.

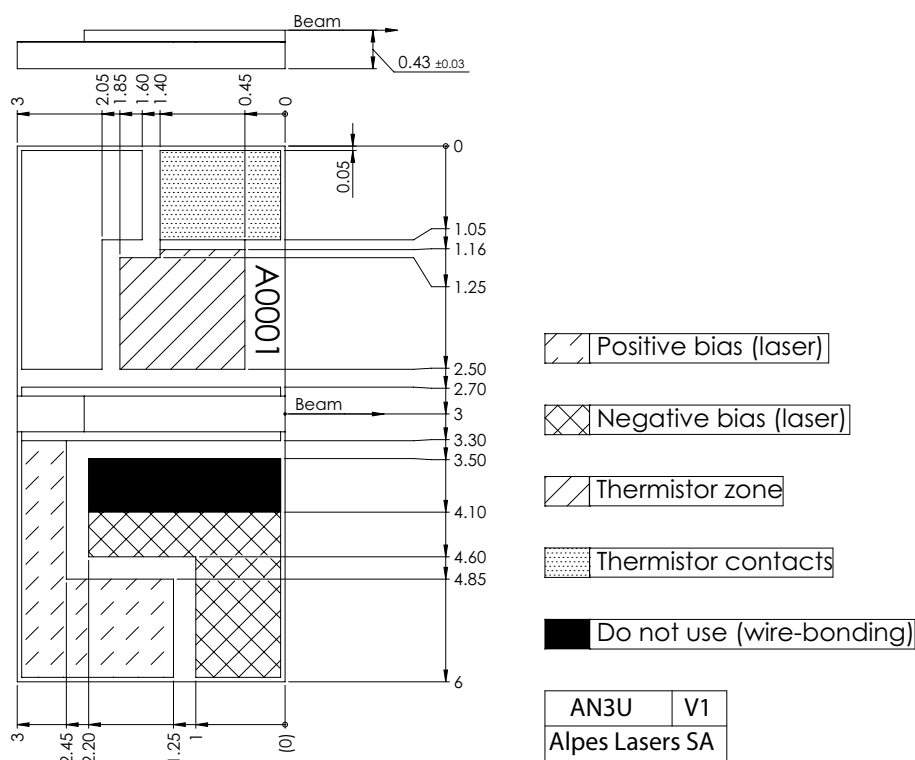


Figure 1: Mechanical and electrical interface for #sbcw27229 DN (please note that AlN submount numbering is A0UKR)

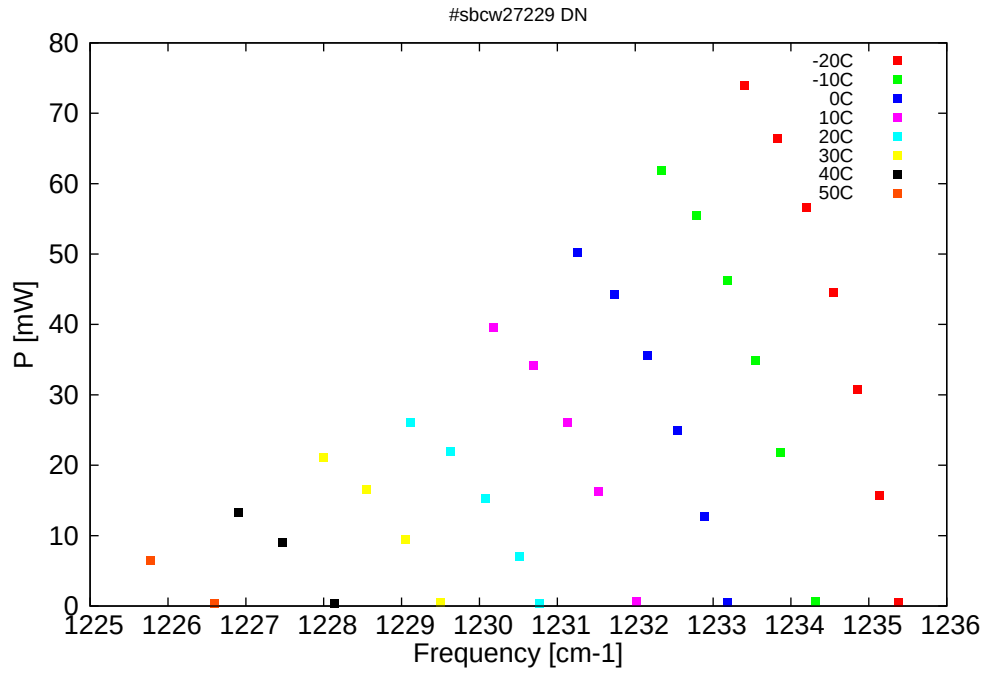


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

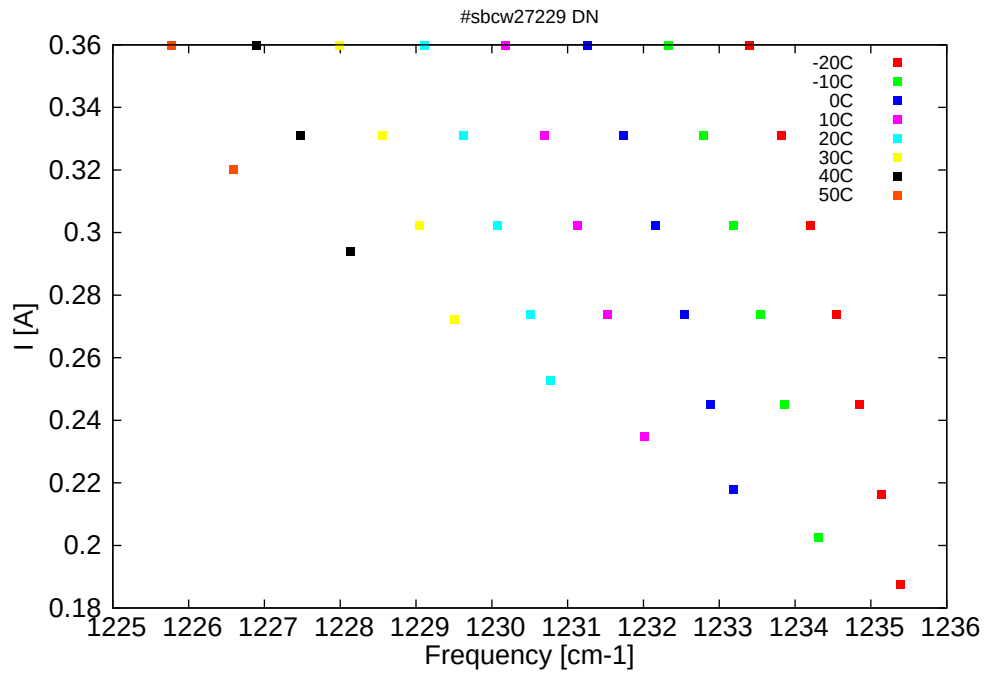


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
8094.6	1235.4	0.6	-20	7.07	0.188
8096.3	1235.1	15.7	-20	7.31	0.216
8098.1	1234.9	30.8	-20	7.55	0.245
8100.1	1234.5	44.6	-20	7.79	0.274
8102.4	1234.2	56.6	-20	8.05	0.302
8104.9	1233.8	66.4	-20	8.32	0.331
8107.7	1233.4	73.9	-20	8.62	0.36
8101.7	1234.3	0.7	-10	7.18	0.202
8104.6	1233.9	21.9	-10	7.55	0.245
8106.7	1233.5	34.9	-10	7.8	0.274
8109.1	1233.2	46.3	-10	8.06	0.302
8111.7	1232.8	55.4	-10	8.33	0.331
8114.7	1232.3	61.9	-10	8.64	0.36
8109.1	1233.2	0.5	0	7.29	0.218
8111.1	1232.9	12.7	0	7.54	0.245
8113.3	1232.5	24.9	0	7.79	0.274
8115.9	1232.2	35.6	0	8.06	0.302
8118.6	1231.7	44.3	0	8.34	0.331
8121.7	1231.3	50.2	0	8.65	0.36
8116.8	1232	0.6	10	7.44	0.235
8120	1231.5	16.2	10	7.8	0.274
8122.6	1231.1	26.1	10	8.08	0.302
8125.5	1230.7	34.1	10	8.38	0.331
8128.9	1230.2	39.6	10	8.69	0.36
8125	1230.8	0.4	20	7.59	0.253
8126.7	1230.5	7.1	20	7.8	0.274
8129.6	1230.1	15.3	20	8.09	0.302
8132.5	1229.6	21.9	20	8.39	0.331
8135.9	1229.1	26.1	20	8.71	0.36
8133.3	1229.5	0.5	30	7.77	0.272
8136.4	1229	9.5	30	8.09	0.302
8139.6	1228.6	16.5	30	8.39	0.331
8143.4	1228	21.1	30	8.71	0.36
8142.4	1228.1	0.4	40	8.04	0.294
8146.8	1227.5	9	40	8.45	0.331
8150.6	1226.9	13.3	40	8.77	0.36
8152.7	1226.6	0.4	50	8.28	0.32
8158.1	1225.8	6.4	50	8.74	0.36

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

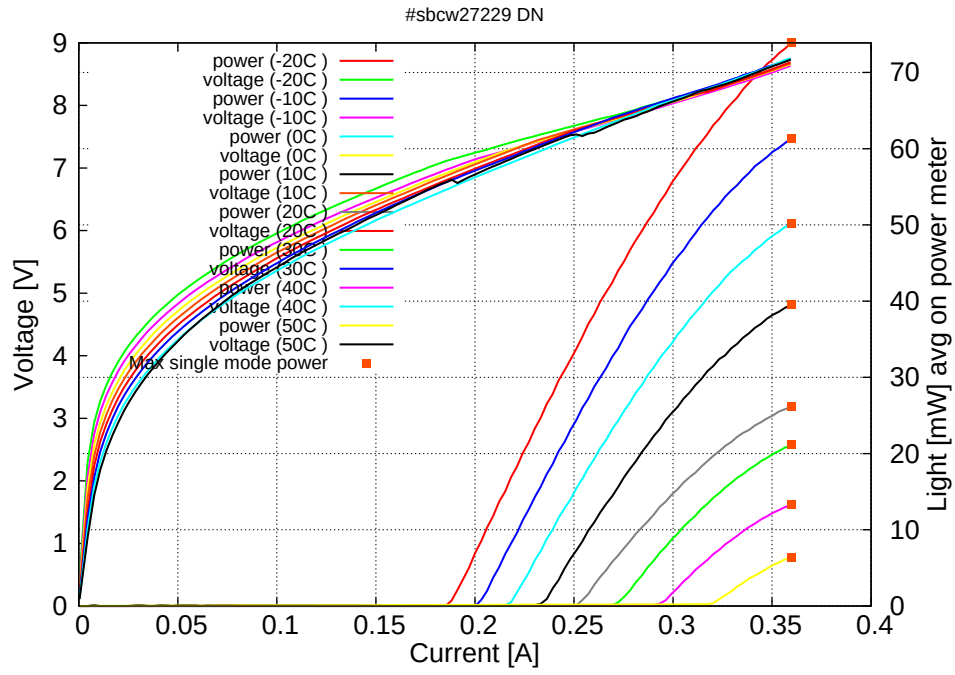


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.18A$ / $V_{th}=7.1V$ (2-wires measurements). Maximum operation current: 0.36A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

