

Datasheet for #sbcw8435 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 current on the laser contact (= bonding pad, corresponding to the label "laser" on the LLH) and the positive current on the base contact (= submount, corresponding to the label "base" on the LLH). To use with a power-supply ILX Lightwave LDX-3232 or equivalent.

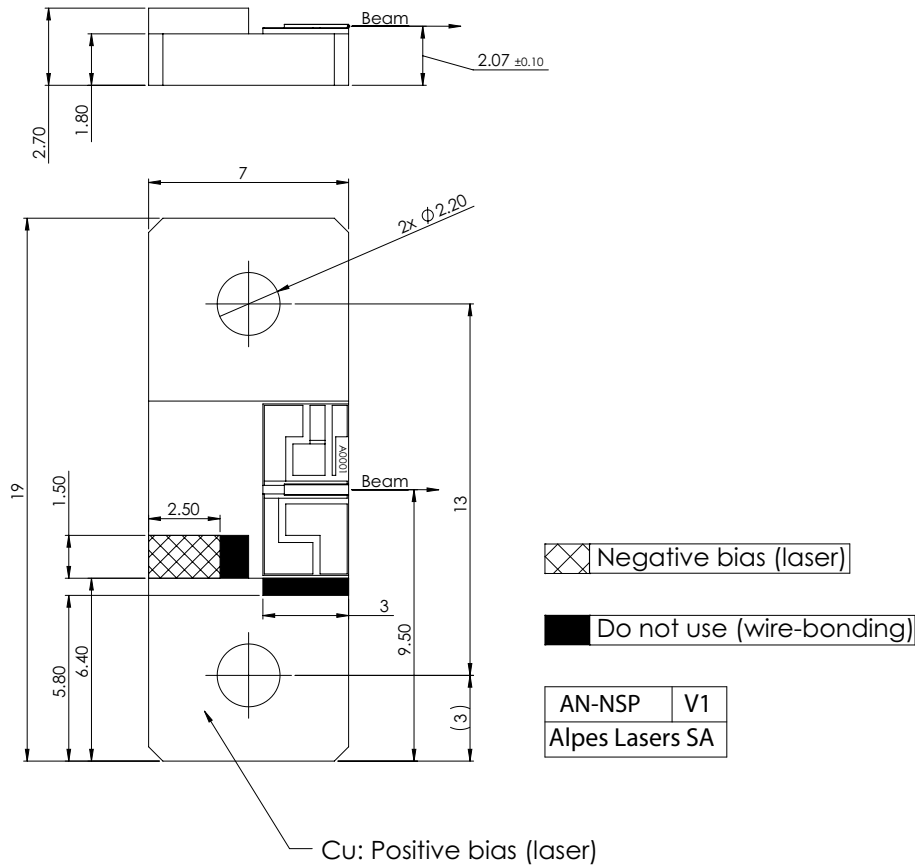


Figure 1: Support mounting for #sbcw8435 DN

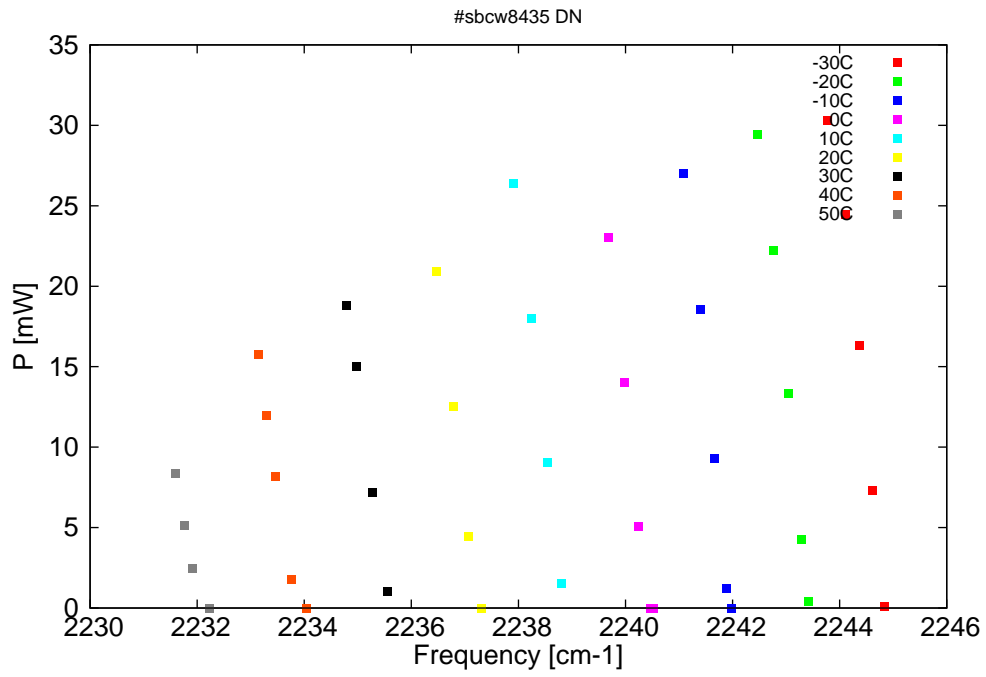


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

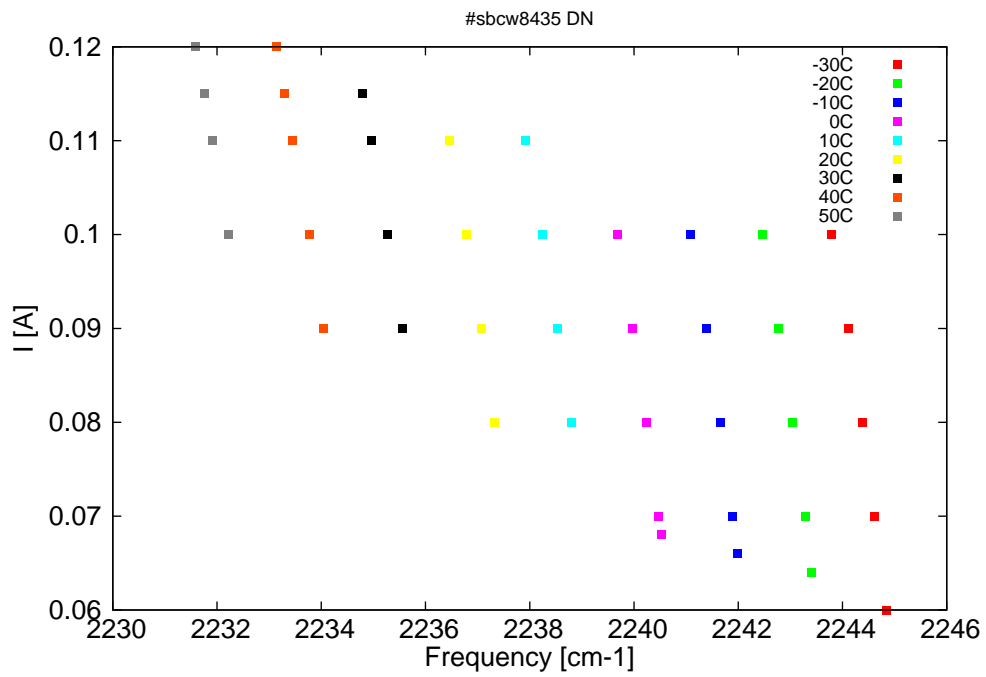


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4454.7	2244.8	0.1	-30	11.6	0.06
4455.1	2244.6	7.3	-30	11.6	0.07
4455.6	2244.4	16.3	-30	11.7	0.08
4456.1	2244.1	24.5	-30	11.7	0.09
4456.8	2243.8	30.3	-30	11.8	0.1
4457.5	2243.4	0.4	-20	11.5	0.06
4457.7	2243.3	4.3	-20	11.5	0.07
4458.2	2243	13.3	-20	11.6	0.08
4458.8	2242.8	22.2	-20	11.6	0.09
4459.4	2242.5	29.4	-20	11.7	0.1
4460.3	2242	0	-10	11.5	0.07
4460.5	2241.9	1.2	-10	11.5	0.07
4461	2241.7	9.3	-10	11.5	0.08
4461.5	2241.4	18.5	-10	11.6	0.09
4462.1	2241.1	27	-10	11.6	0.1
4463.3	2240.5	0	0	11.5	0.07
4463.3	2240.5	0	0	11.4	0.07
4463.8	2240.2	5.1	0	11.5	0.08
4464.3	2240	14	0	11.5	0.09
4464.9	2239.7	23	0	11.6	0.1
4466.7	2238.8	1.5	10	11.4	0.08
4467.2	2238.5	9	10	11.5	0.09
4467.8	2238.2	18	10	11.5	0.1
4468.5	2237.9	26.4	10	11.6	0.11
4469.6	2237.3	0	20	11.4	0.08
4470.1	2237.1	4.5	20	11.4	0.09
4470.7	2236.8	12.5	20	11.5	0.1
4471.3	2236.5	20.9	20	11.5	0.11
4473.2	2235.6	1	30	11.4	0.09
4473.7	2235.3	7.1	30	11.4	0.1
4474.3	2235	15	30	11.5	0.11
4474.7	2234.8	18.8	30	11.5	0.12
4476.2	2234	0	40	11.4	0.09
4476.7	2233.8	1.8	40	11.4	0.1
4477.4	2233.5	8.2	40	11.5	0.11
4477.7	2233.3	11.9	40	11.5	0.12
4478	2233.1	15.8	40	11.5	0.12
4479.8	2232.2	0	50	11.5	0.1
4480.4	2231.9	2.5	50	11.5	0.11
4480.8	2231.8	5.1	50	11.5	0.12
4481.1	2231.6	8.4	50	11.6	0.12

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

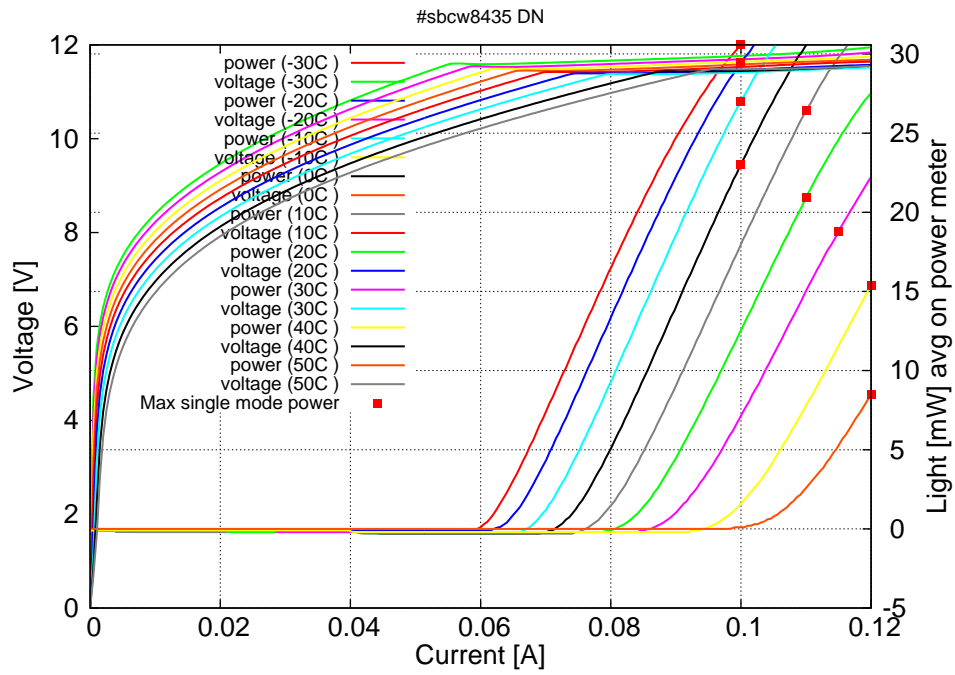


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -30C: $I_{th}=0.06A$ / $V_{th}=11.6V$ (2-wires measurements). Maximum operation current: 0.10A between -30C and 0C, 0.11A between 10C and 20C, 0.115A at 30C and 0.12A between 40C and 50C.

Figure 3: spectra at different temperatures for various DC currents

