

Datasheet for #sbcw24064 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.

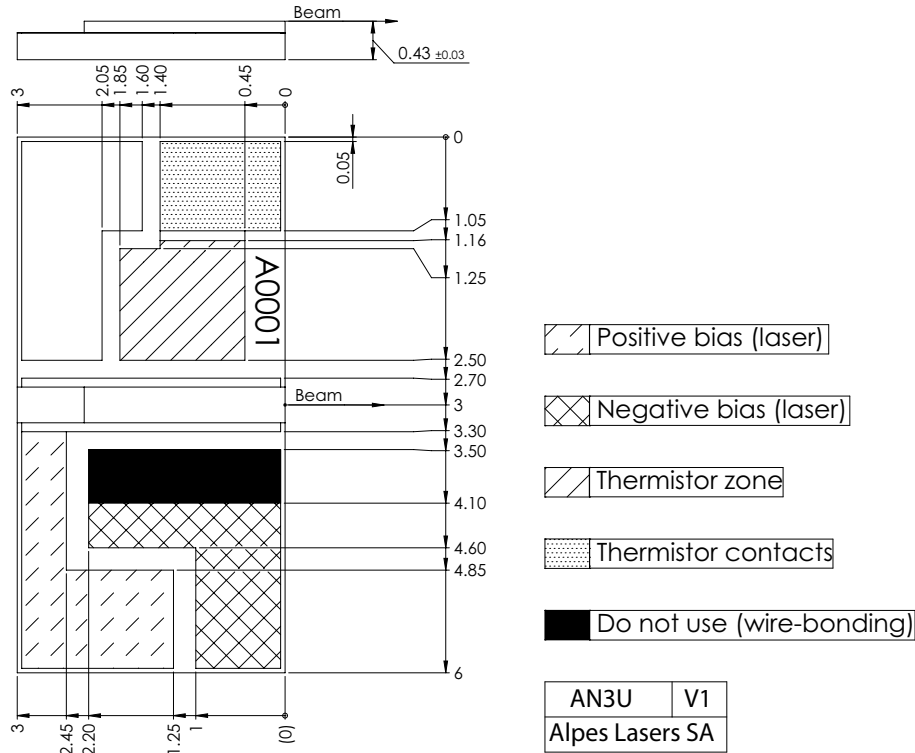


Figure 1: Mechanical and electrical interface for #sbcw24064 DN (please note that AlN submount numbering is A0ZTU)

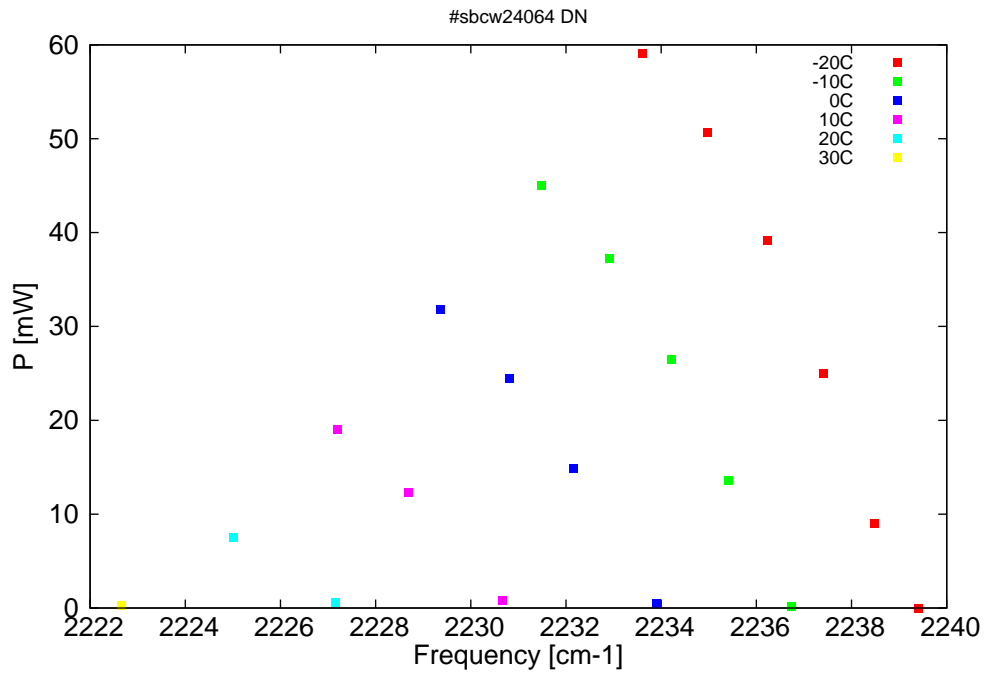


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

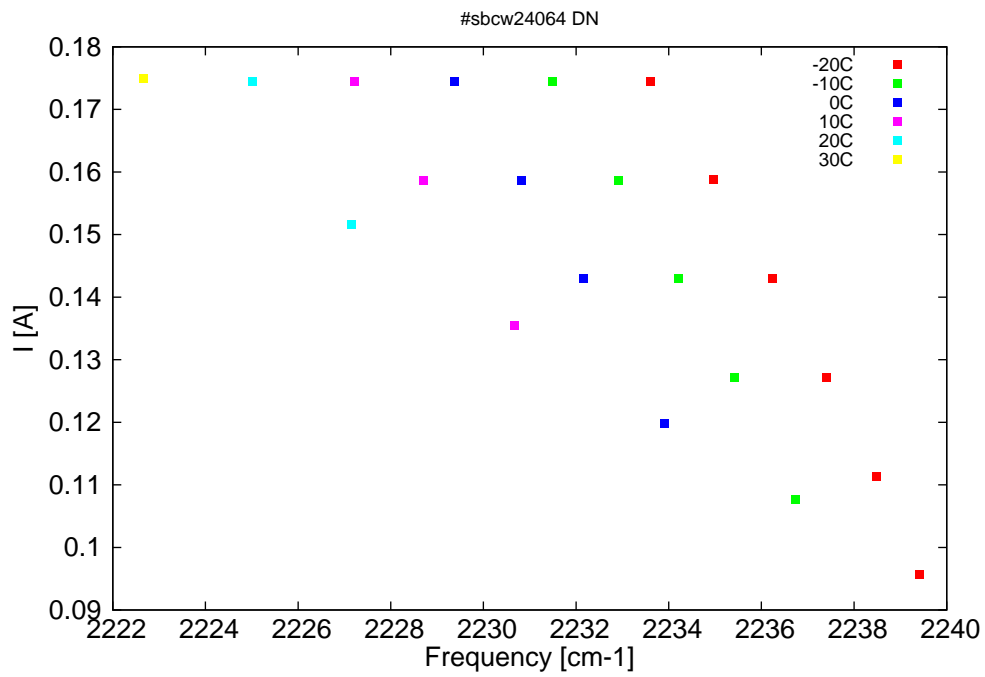


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4465.5	2239.4	0	-20	12.54	0.096
4467.3	2238.5	9	-20	12.73	0.111
4469.4	2237.4	25	-20	12.97	0.127
4471.8	2236.2	39.2	-20	13.21	0.143
4474.3	2235	50.6	-20	13.45	0.159
4477.1	2233.6	59	-20	13.7	0.175
4470.8	2236.7	0.2	-10	12.58	0.108
4473.4	2235.4	13.6	-10	12.84	0.127
4475.8	2234.2	26.5	-10	13.08	0.143
4478.5	2232.9	37.2	-10	13.32	0.159
4481.3	2231.5	45.1	-10	13.57	0.175
4476.5	2233.9	0.4	0	12.64	0.12
4479.9	2232.2	14.9	0	12.97	0.143
4482.7	2230.8	24.5	0	13.2	0.159
4485.6	2229.4	31.8	0	13.44	0.175
4483	2230.7	0.8	10	12.77	0.135
4486.9	2228.7	12.3	10	13.1	0.159
4489.9	2227.2	19	10	13.33	0.175
4490	2227.2	0.6	20	12.92	0.152
4494.4	2225	7.5	20	13.24	0.175
4499.1	2222.7	0.3	30	13.2	0.175

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

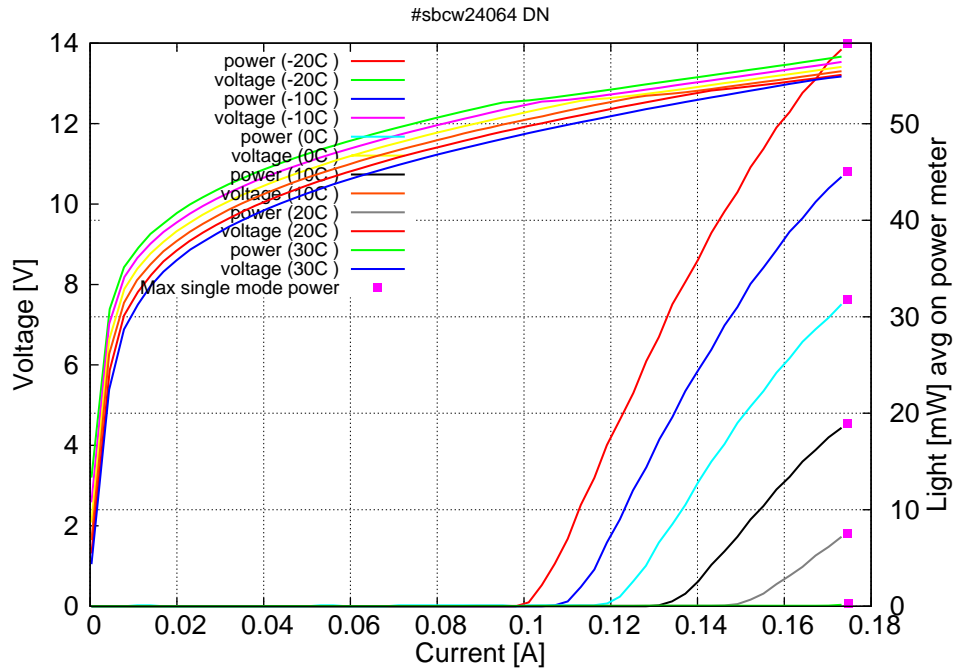


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.10A$ / $V_{th}=12.6V$ (2-wires measurements). Maximum operation

current: 0.175A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

