

Datasheet for #sbcw25116 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.

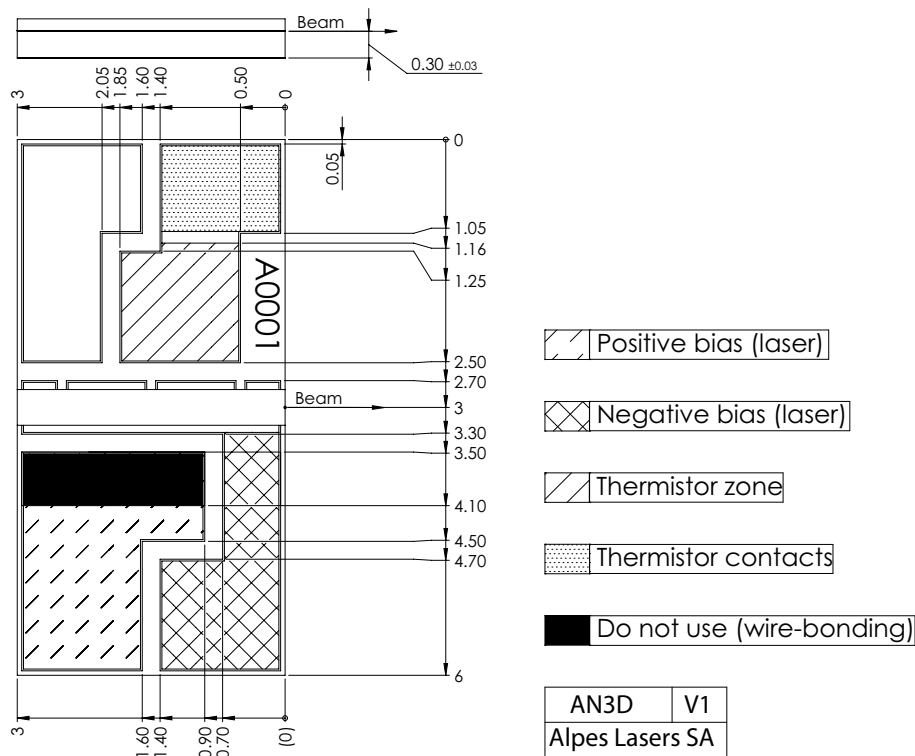


Figure 1: Mechanical and electrical interface for #sbcw25116 DN (please note that AlN submount numbering is P4093)

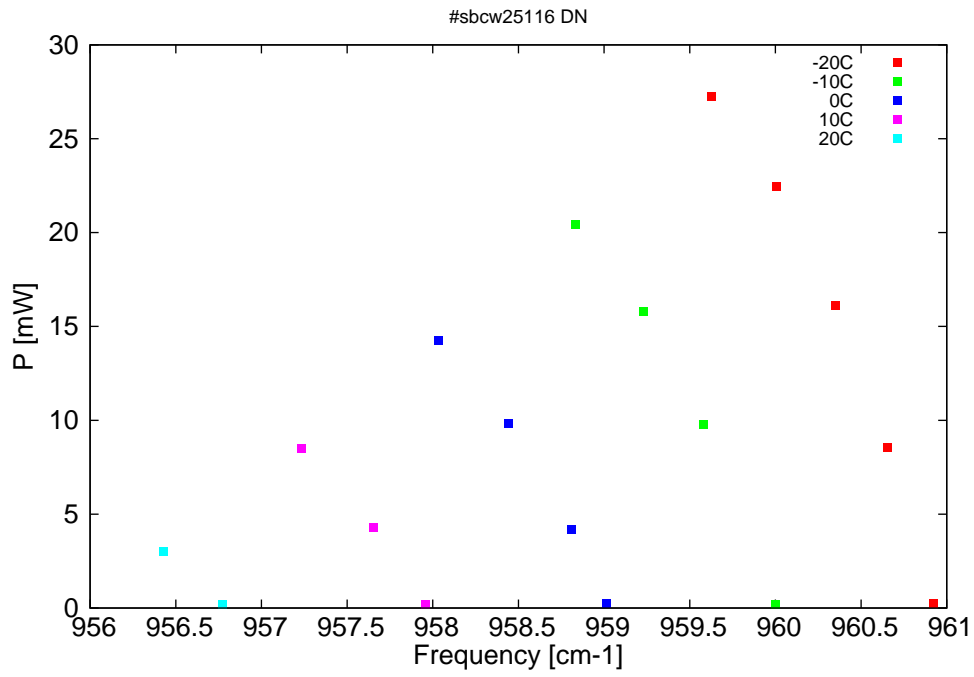


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

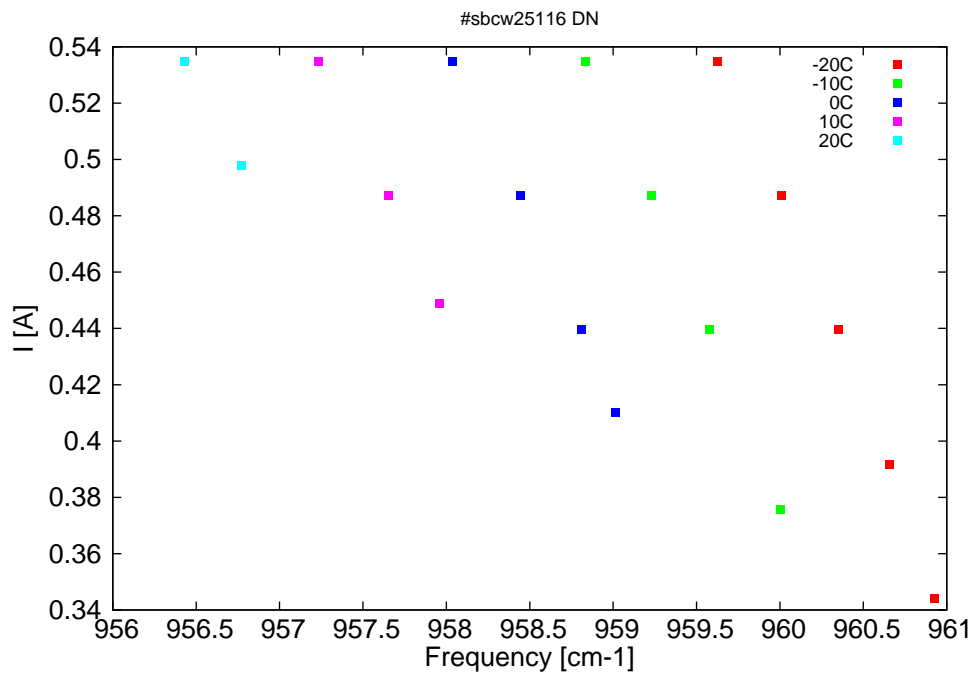


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
10406.6	960.9	0.2	-20	8.63	0.344
10409.6	960.7	8.5	-20	8.92	0.392
10412.9	960.3	16.1	-20	9.23	0.44
10416.6	960	22.4	-20	9.55	0.487
10420.7	959.6	27.2	-20	9.91	0.535
10416.7	960	0.2	-10	8.76	0.376
10421.2	959.6	9.8	-10	9.18	0.44
10425	959.2	15.8	-10	9.53	0.487
10429.3	958.8	20.4	-10	9.9	0.535
10427.4	959	0.2	0	8.95	0.41
10429.6	958.8	4.2	0	9.15	0.44
10433.6	958.4	9.8	0	9.51	0.487
10438	958	14.2	0	9.88	0.535
10438.9	958	0.2	10	9.19	0.449
10442.2	957.7	4.3	10	9.47	0.487
10446.8	957.2	8.5	10	9.85	0.535
10451.8	956.8	0.2	20	9.57	0.498
10455.6	956.4	3	20	9.86	0.535

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

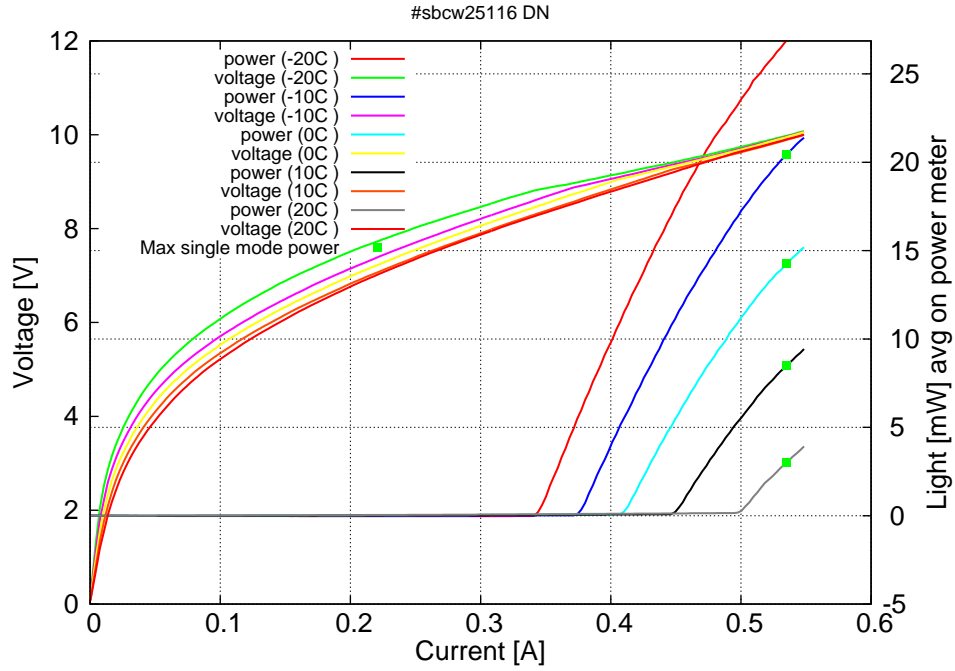


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.34A$ / $V_{th}=8.6V$ (2-wires measurements). Maximum operation current: 0.550A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

