

**Datasheet for #sbcw25117 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.

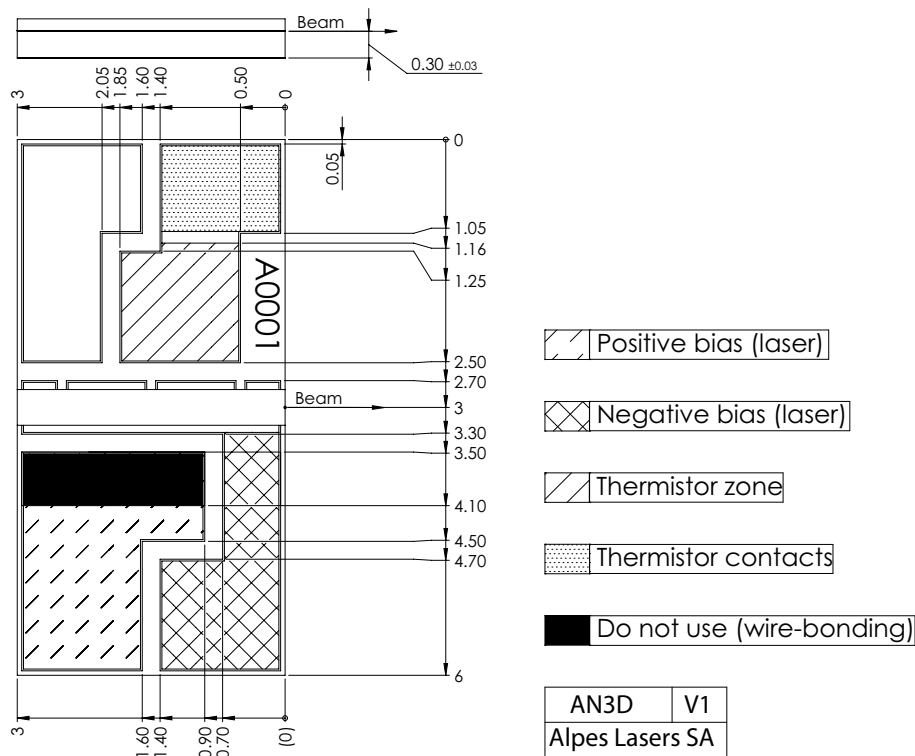


Figure 1: Mechanical and electrical interface for #sbcw25117 DN (please note that AlN submount numbering is P4100)

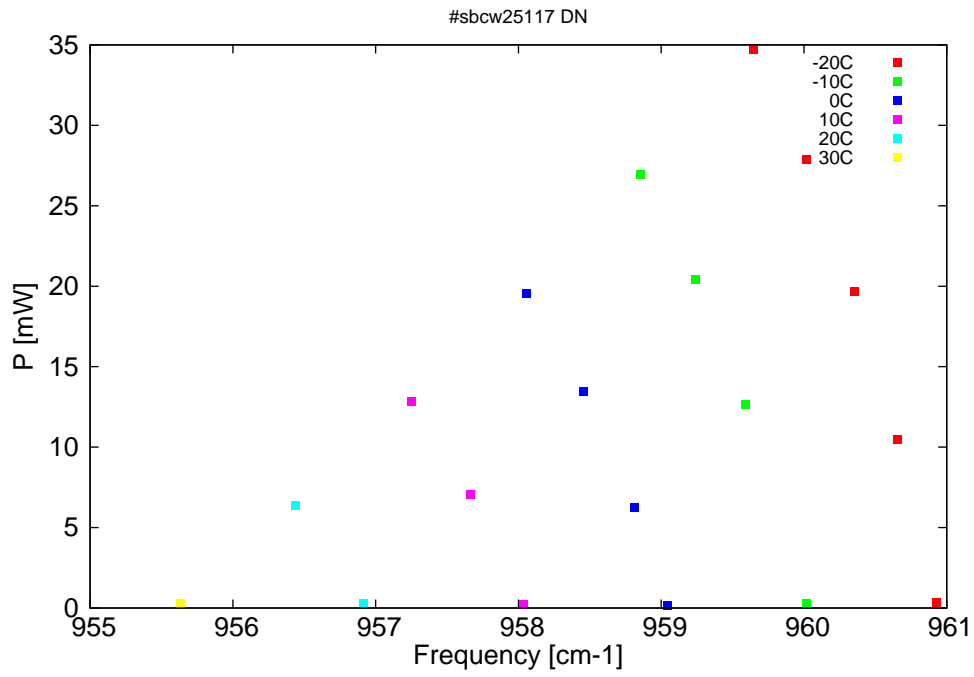


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

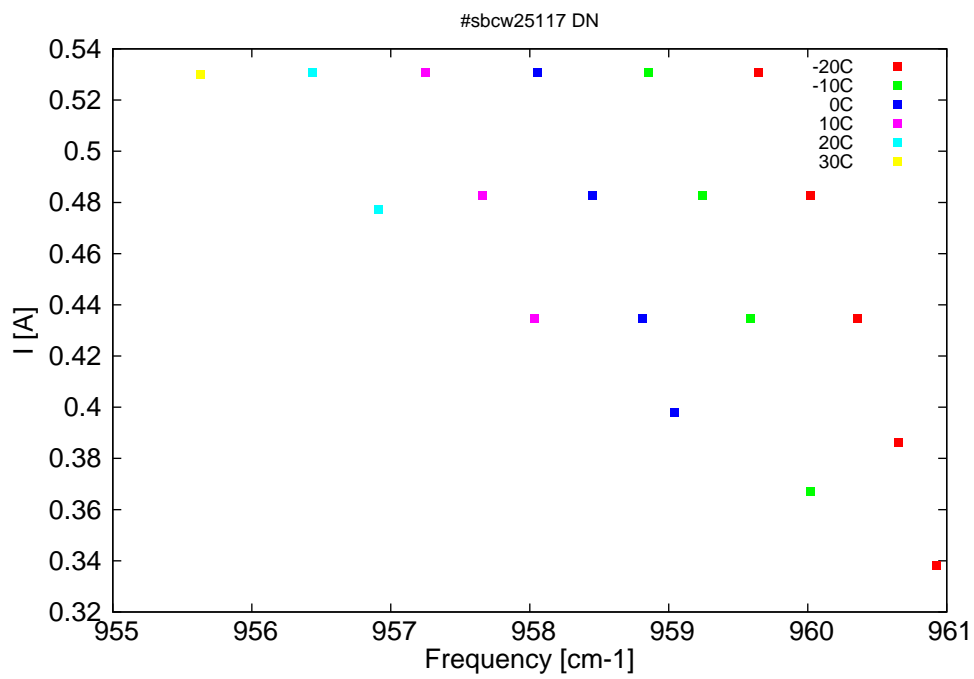


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
10406.6	960.9	0.3	-20	8.48	0.338
10409.6	960.7	10.5	-20	8.77	0.386
10412.8	960.4	19.7	-20	9.07	0.435
10416.4	960	27.9	-20	9.4	0.483
10420.5	959.6	34.7	-20	9.77	0.531
10416.5	960	0.3	-10	8.62	0.367
10421.1	959.6	12.6	-10	9.05	0.435
10424.9	959.2	20.4	-10	9.38	0.483
10429.1	958.9	26.9	-10	9.75	0.531
10427.1	959	0.2	0	8.79	0.398
10429.6	958.8	6.2	0	9.03	0.435
10433.5	958.5	13.5	0	9.37	0.483
10437.8	958.1	19.5	0	9.74	0.531
10438.1	958	0.2	10	9.01	0.435
10442.1	957.7	7	10	9.36	0.483
10446.6	957.2	12.8	10	9.73	0.531
10450.3	956.9	0.3	20	9.31	0.477
10455.4	956.4	6.3	20	9.72	0.531
10464.3	955.6	0.3	30	9.71	0.53

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

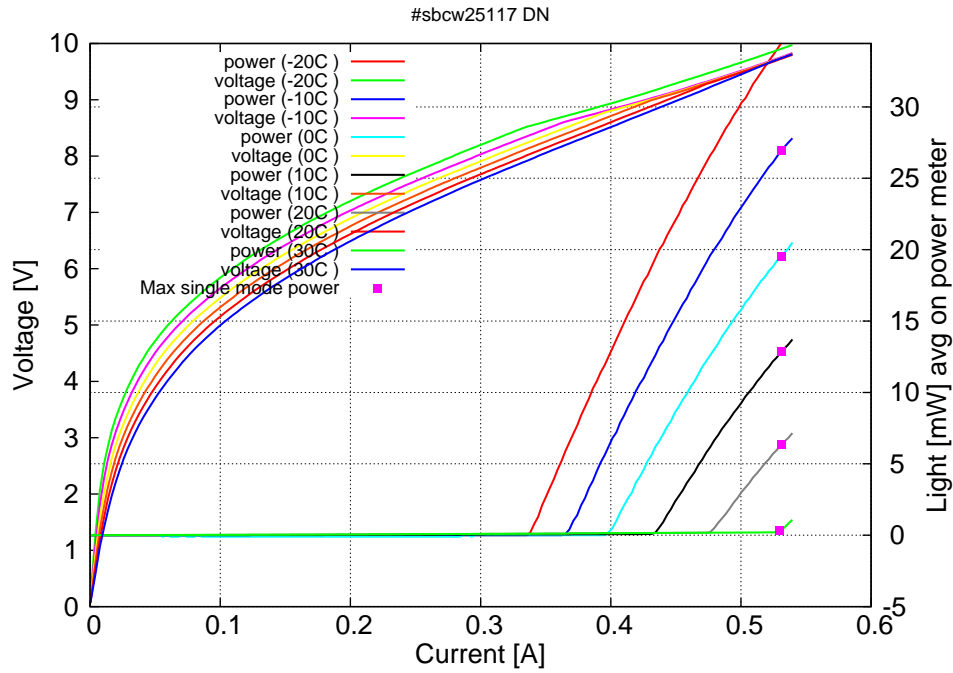


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.33A$  /  $V_{th}=8.5V$  (2-wires measurements). Maximum operation current: 0.540A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

