

Datasheet for #sbcw24937 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.

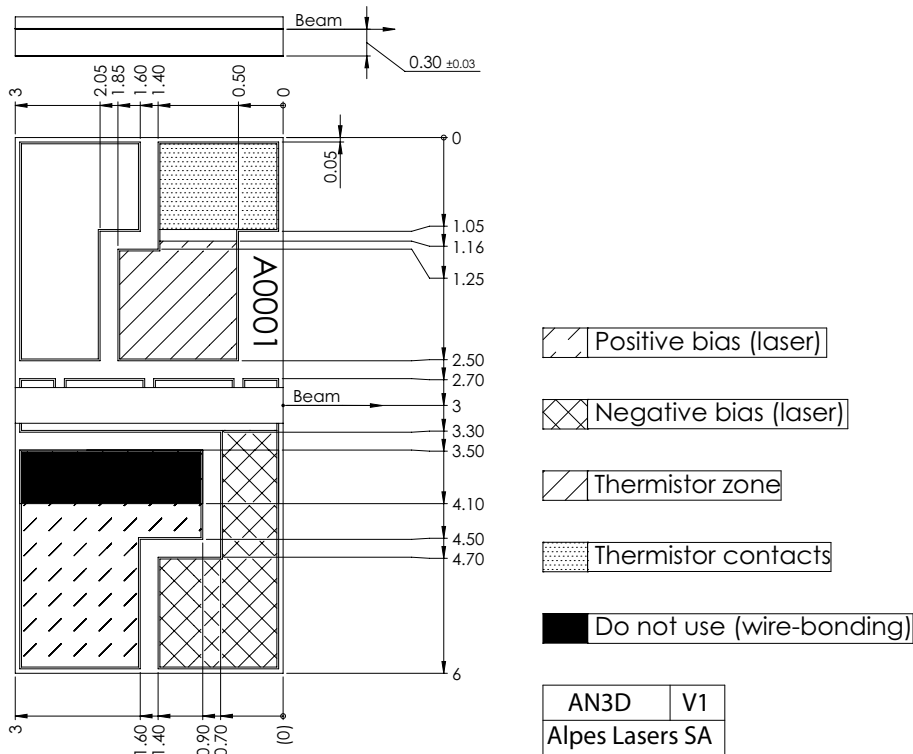


Figure 1: Mechanical and electrical interface for #sbcw24937 DN (please note that AlN submount numbering is P2811)

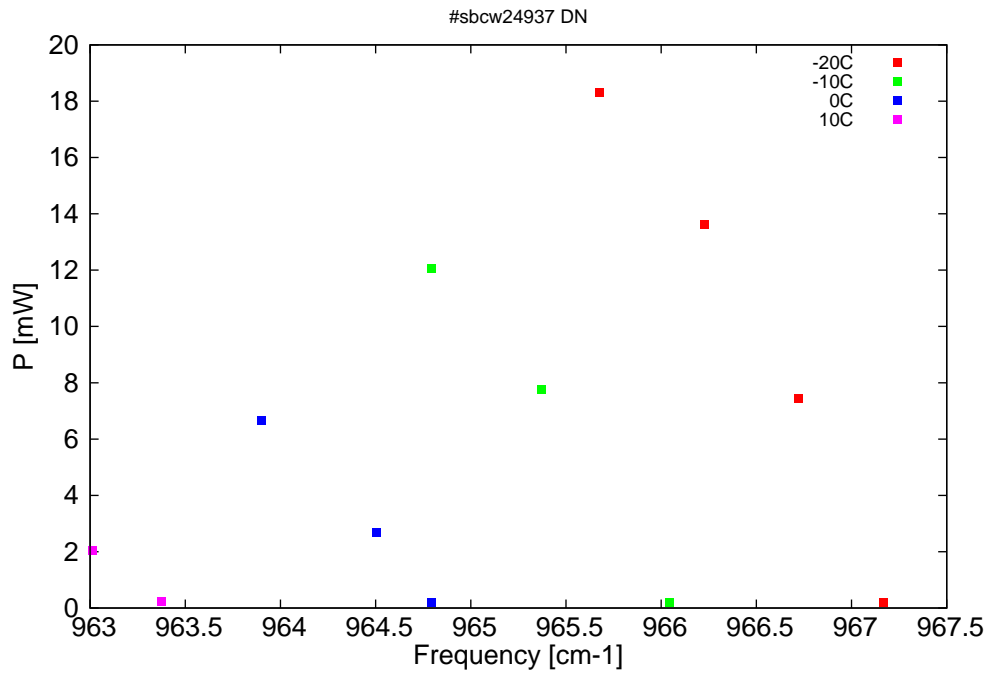


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

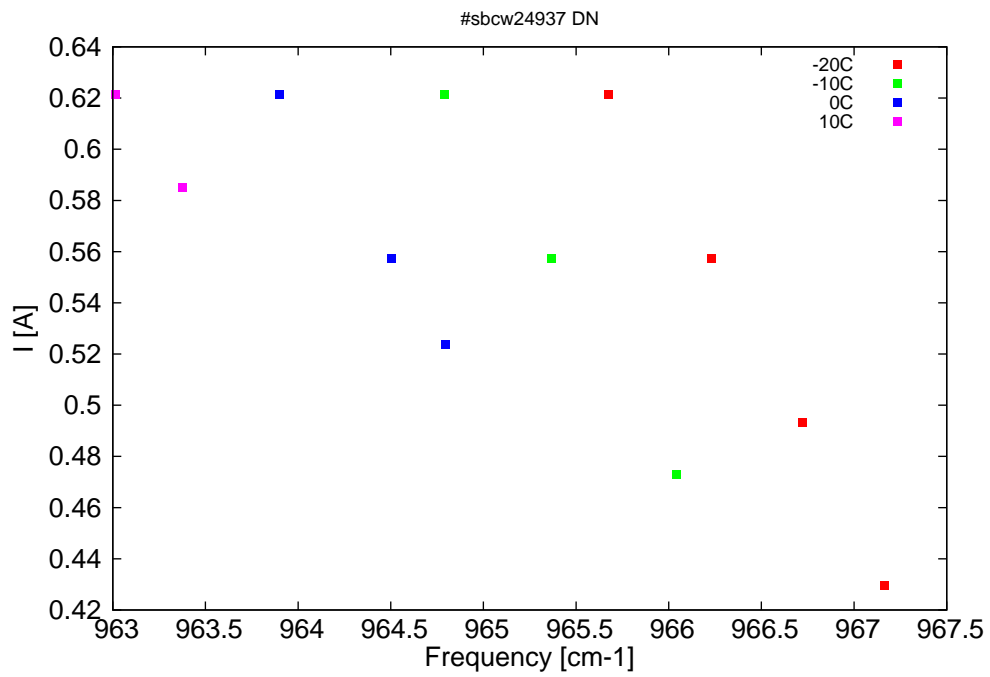


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
10339.5	967.2	0.2	-20	8.77	0.429
10344.2	966.7	7.4	-20	9.16	0.493
10349.5	966.2	13.6	-20	9.59	0.557
10355.4	965.7	18.3	-20	10.01	0.621
10351.5	966	0.2	-10	8.94	0.473
10358.7	965.4	7.8	-10	9.48	0.557
10364.9	964.8	12.1	-10	9.94	0.621
10364.9	964.8	0.2	0	9.2	0.524
10368	964.5	2.7	0	9.43	0.557
10374.5	963.9	6.7	0	9.9	0.621
10380.2	963.4	0.2	10	9.62	0.585
10384.1	963	2	10	9.89	0.621

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

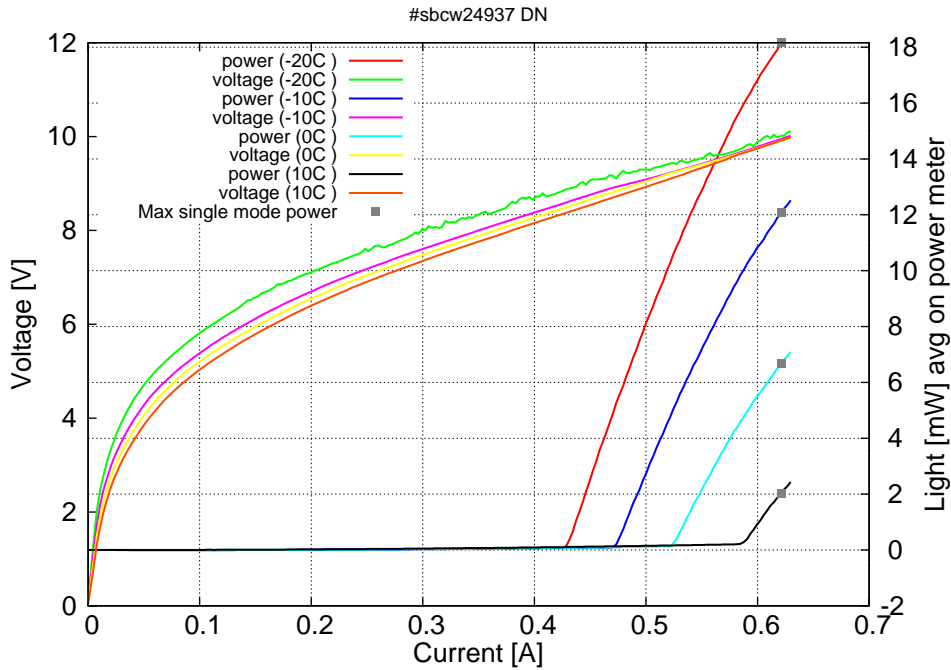


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.42A$ / $V_{th}=8.6V$ (2-wires measurements). Maximum operation current: 0.630A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

