

Datasheet for #sbcw21583 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.

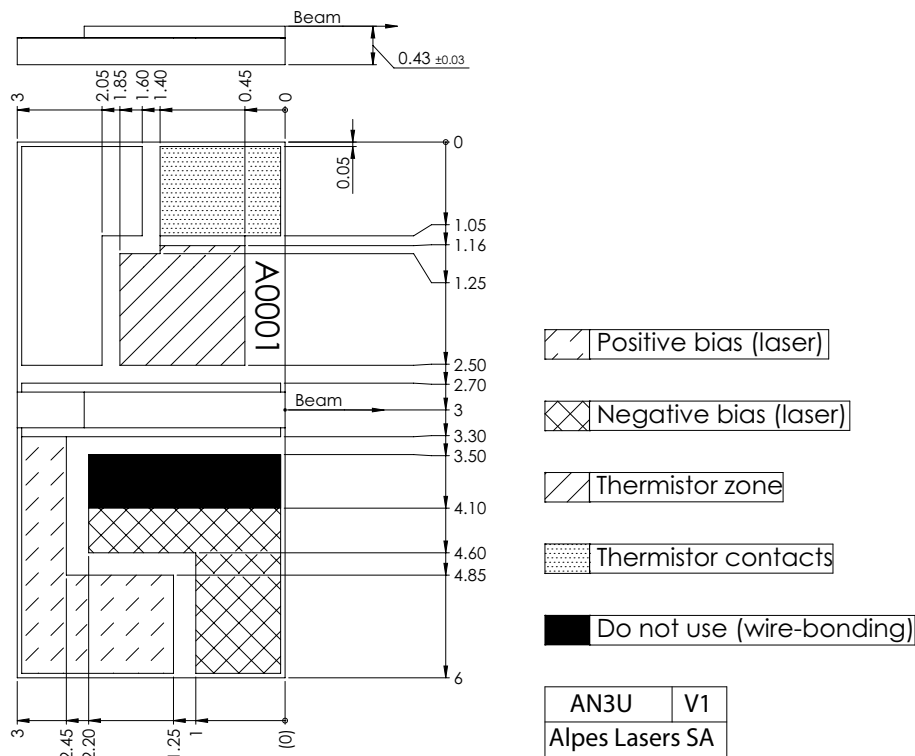


Figure 1: Mechanical and electrical interface for #sbcw21583 DN (please note that AlN submount numbering is A0MT9)

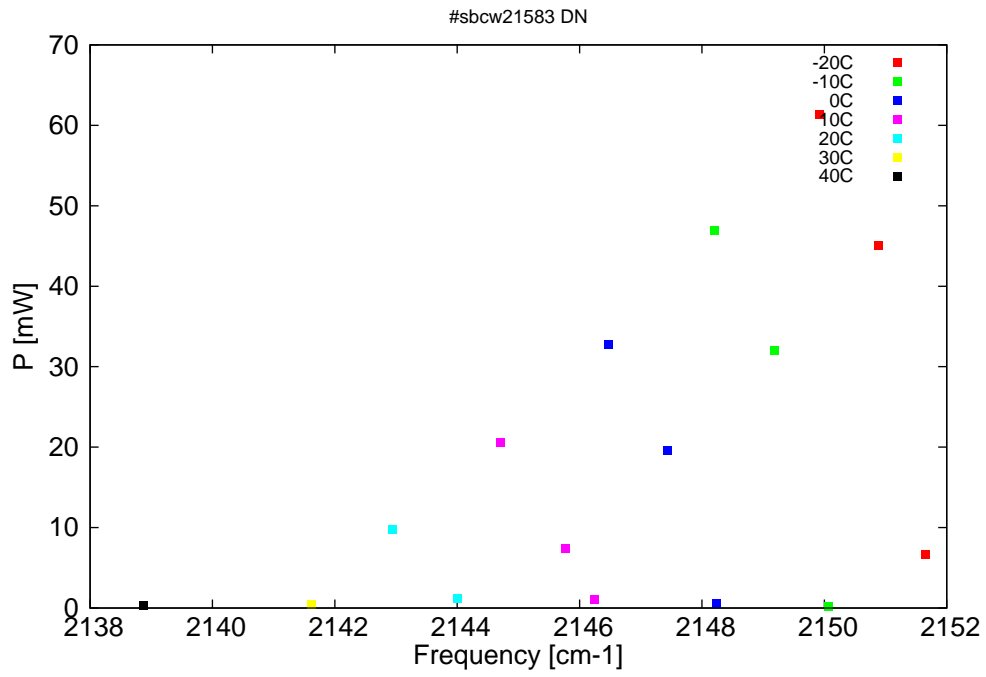


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

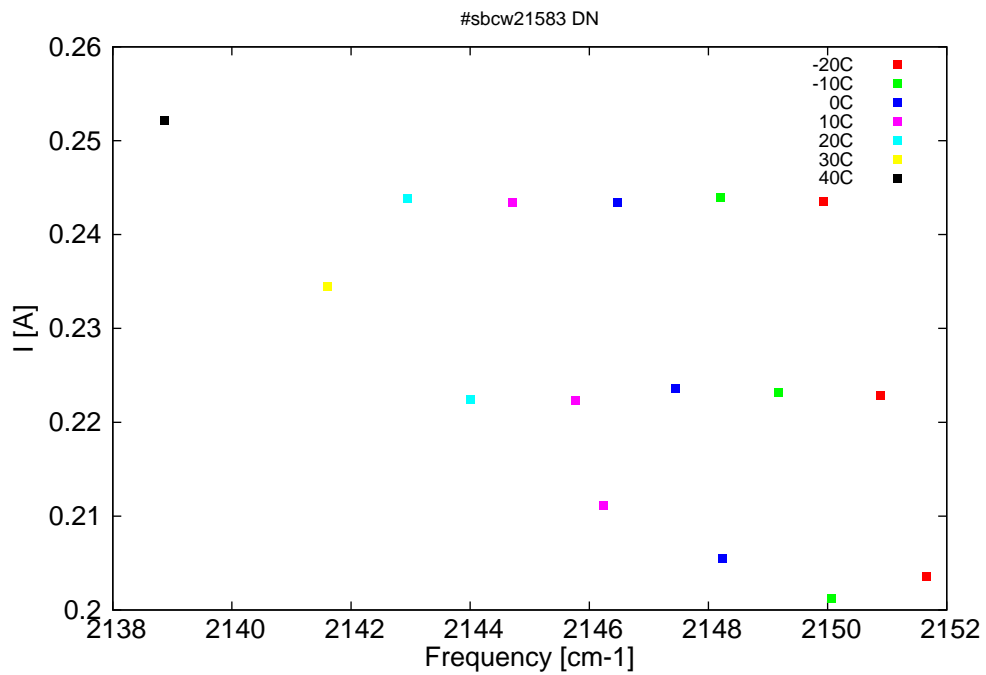


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4647.6	2151.7	6.6	-20	13.81	0.204
4649.3	2150.9	45	-20	14.01	0.223
4651.3	2149.9	61.3	-20	14.3	0.243
4651	2150.1	0.2	-10	13.67	0.201
4652.9	2149.2	32	-10	13.89	0.223
4655	2148.2	46.9	-10	14.17	0.244
4655	2148.2	0.6	0	13.6	0.205
4656.7	2147.4	19.6	0	13.78	0.224
4658.8	2146.5	32.7	0	14.04	0.243
4659.3	2146.2	1.1	10	13.57	0.211
4660.3	2145.8	7.4	10	13.67	0.222
4662.6	2144.7	20.6	10	13.93	0.243
4664.2	2144	1.2	20	13.57	0.222
4666.5	2142.9	9.8	20	13.82	0.244
4669.4	2141.6	0.5	30	13.61	0.234
4675.4	2138.9	0.3	40	13.72	0.252

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

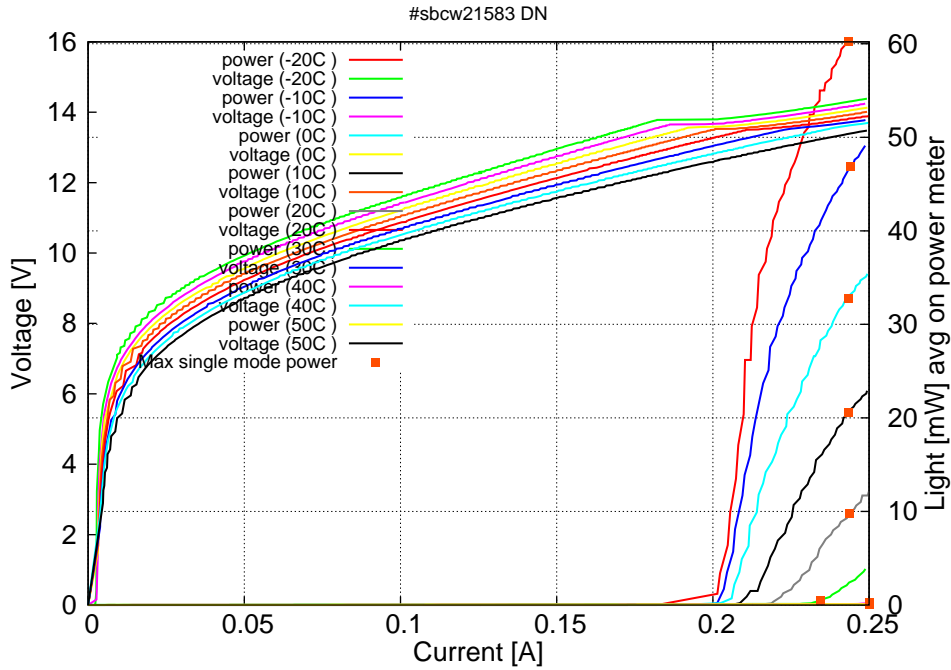


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.20A$ / $V_{th}=13.8V$ (2-wires measurements). Maximum operation current: 0.25A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

