

Datasheet for #sbcw26981 DN

Recommendations:

Please read the User Manual and have a look at the FAQ at <https://www.alpeslasers.ch/resources/#faq>

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.

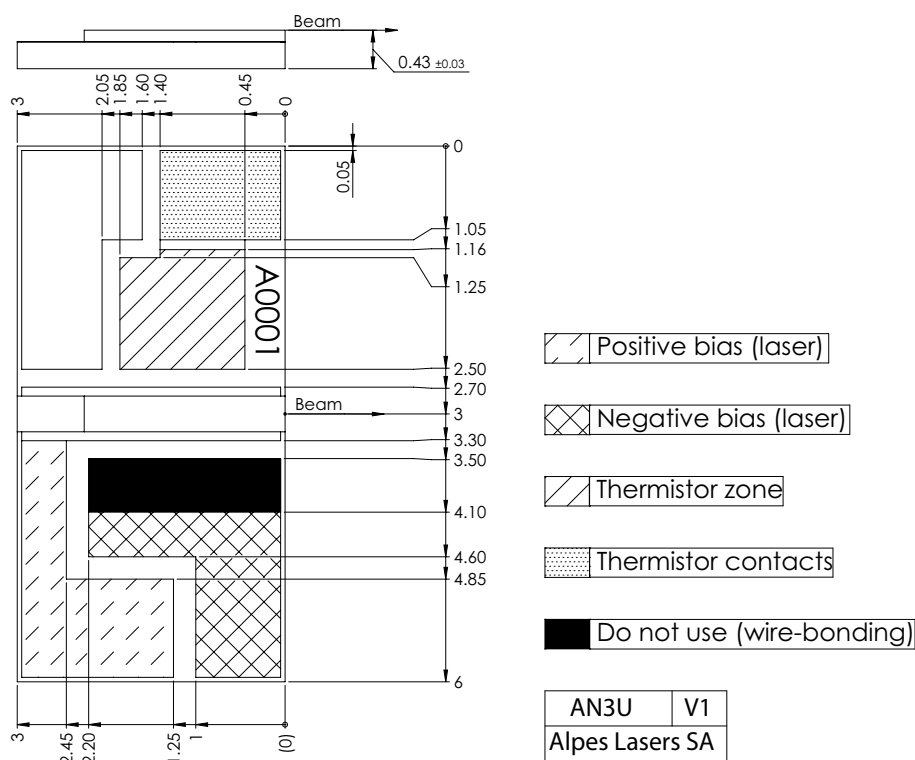


Figure 1: Mechanical and electrical interface for #sbcw26981 DN (please note that AlN submount numbering is A0YMJ)

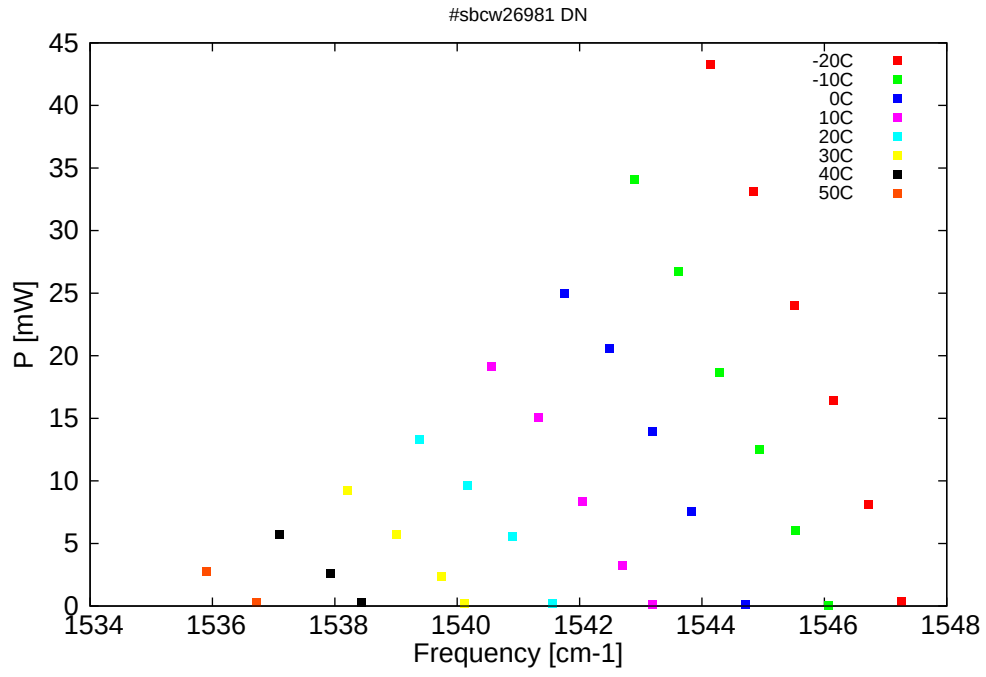


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

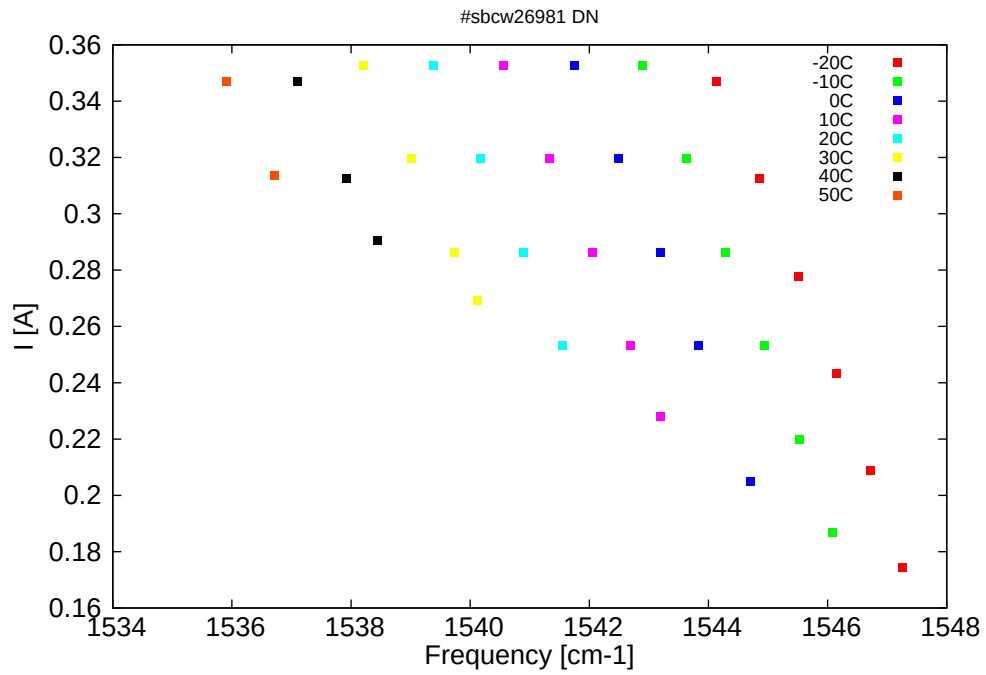


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
6463	1547.3	0.4	-20	10.48	0.174
6465.3	1546.7	8.1	-20	10.84	0.209
6467.7	1546.1	16.4	-20	11.19	0.243
6470.3	1545.5	24	-20	11.55	0.278
6473.1	1544.9	33.1	-20	11.86	0.312
6476.1	1544.1	43.2	-20	12.17	0.347
6468	1546.1	0.1	-10	10.53	0.187
6470.2	1545.5	6.1	-10	10.88	0.22
6472.7	1544.9	12.5	-10	11.22	0.253
6475.5	1544.3	18.7	-10	11.56	0.286
6478.3	1543.6	26.7	-10	11.85	0.32
6481.3	1542.9	34.1	-10	12.16	0.353
6473.7	1544.7	0.1	0	10.6	0.205
6477.4	1543.8	7.5	0	11.1	0.253
6480.1	1543.2	13.9	0	11.42	0.286
6483	1542.5	20.6	0	11.72	0.32
6486.1	1541.7	25	0	12.03	0.353
6480.1	1543.2	0.1	10	10.71	0.228
6482.2	1542.7	3.2	10	10.97	0.253
6484.9	1542.1	8.4	10	11.29	0.286
6487.9	1541.3	15.1	10	11.59	0.32
6491.2	1540.6	19.2	10	11.91	0.353
6487	1541.6	0.2	20	10.85	0.253
6489.7	1540.9	5.5	20	11.17	0.286
6492.8	1540.2	9.7	20	11.47	0.32
6496.1	1539.4	13.3	20	11.79	0.353
6493	1540.1	0.2	30	10.88	0.269
6494.6	1539.7	2.4	30	11.04	0.286
6497.7	1539	5.7	30	11.36	0.32
6501.1	1538.2	9.2	30	11.67	0.353
6500.1	1538.4	0.3	40	10.93	0.29
6502.3	1537.9	2.6	40	11.15	0.312
6505.8	1537.1	5.7	40	11.48	0.347
6507.4	1536.7	0.3	50	11.05	0.314
6510.8	1535.9	2.8	50	11.38	0.347

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

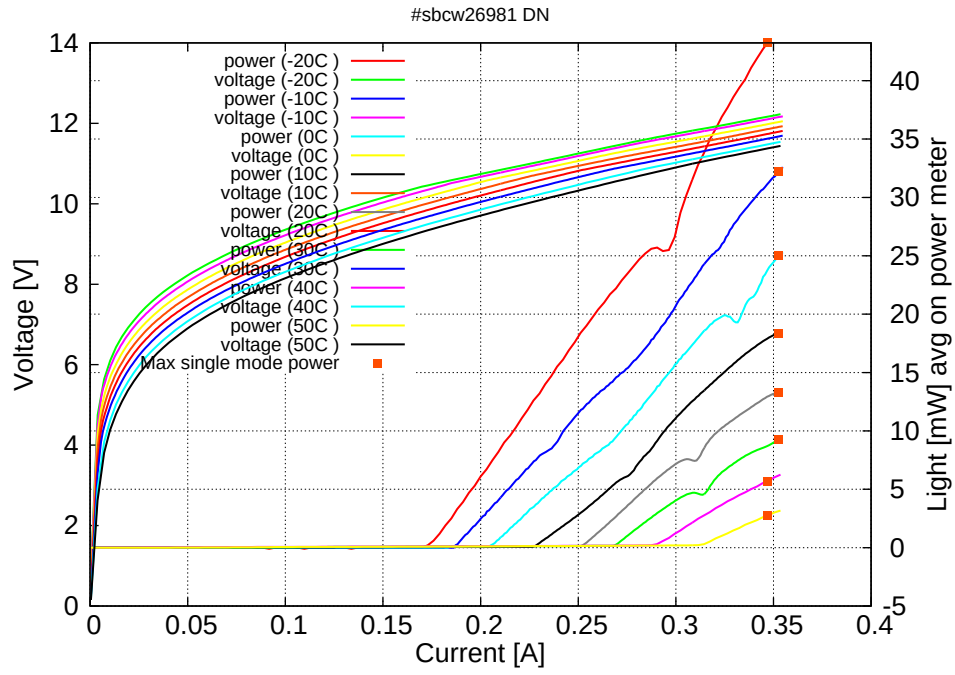


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.17A$ / $V_{th}=10.4V$ (2-wires measurements). Maximum operation current: 0.355A for all temperatures.

