

Datasheet for #sbcw26874 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.

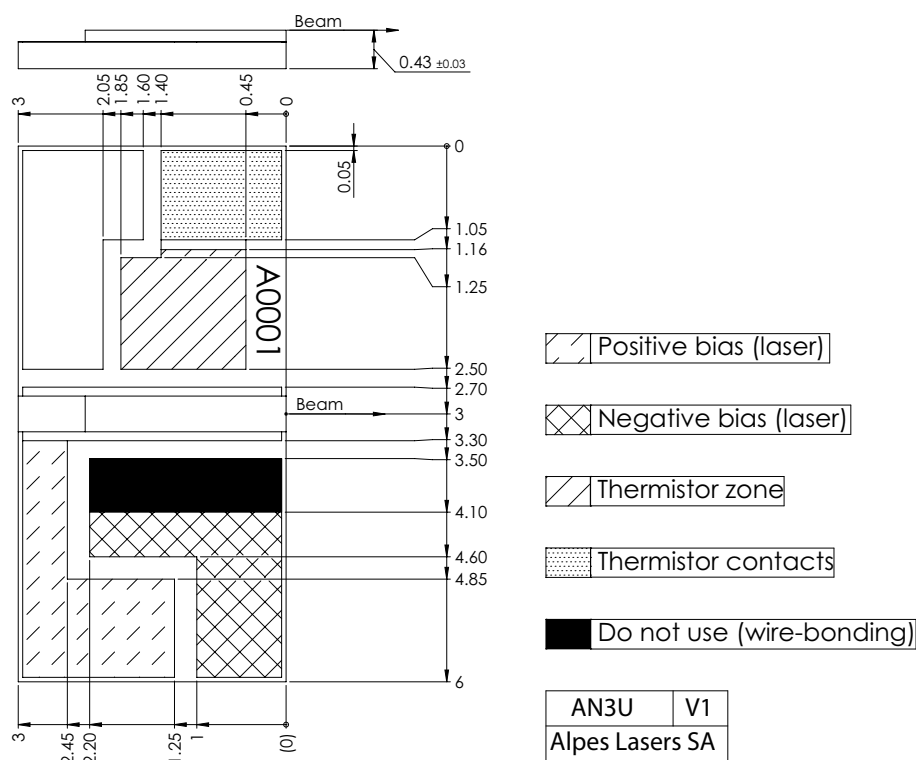


Figure 1: Mechanical and electrical interface for #sbcw26874 DN (please note that AlN submount numbering is A0VHA)

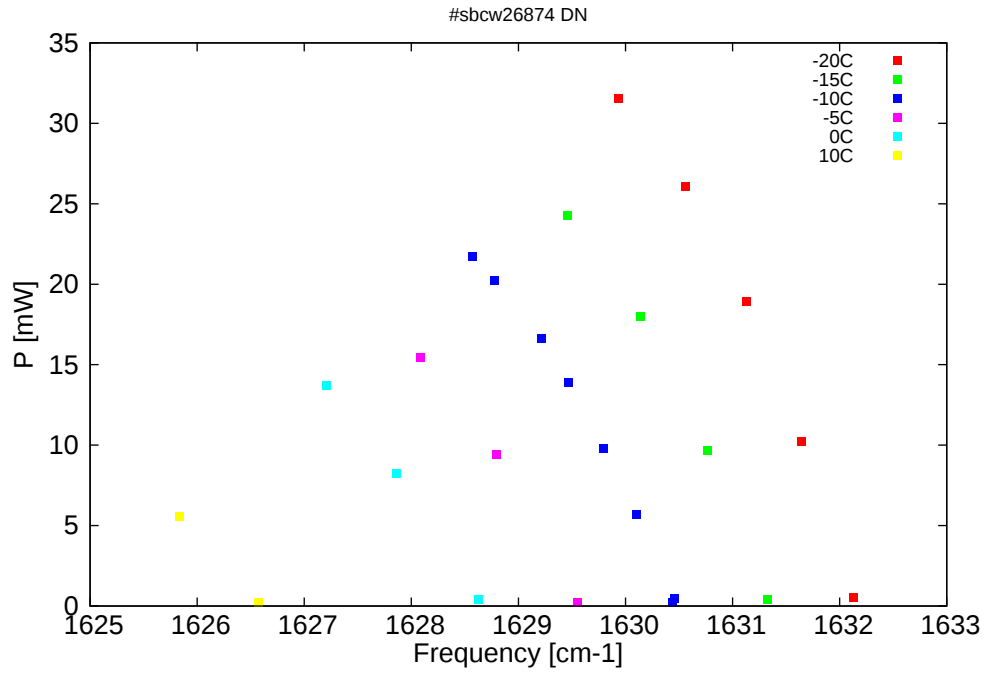


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

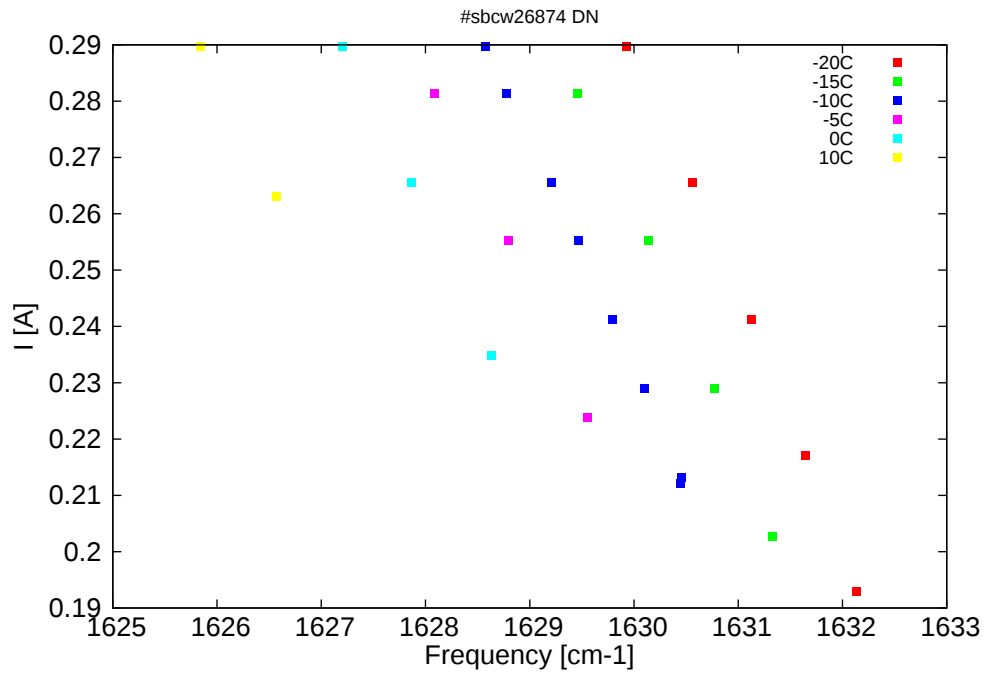


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
6127	1632.1	0.5	-20	9.61	0.193
6128.8	1631.6	10.2	-20	9.84	0.217
6130.7	1631.1	18.9	-20	10.07	0.241
6132.9	1630.6	26.1	-20	10.29	0.266
6135.2	1629.9	31.6	-20	10.51	0.29
6130	1631.3	0.4	-15	9.57	0.203
6132.1	1630.8	9.7	-15	9.81	0.229
6134.4	1630.1	18	-15	10.05	0.255
6137	1629.5	24.3	-15	10.3	0.281
6133.3	1630.4	0.2	-10	9.68	0.212
6133.2	1630.5	0.4	-10	9.61	0.213
6134.6	1630.1	5.7	-10	9.75	0.229
6135.8	1629.8	9.8	-10	9.96	0.241
6137	1629.5	13.9	-10	10	0.255
6137.9	1629.2	16.6	-10	10.19	0.266
6139.6	1628.8	20.2	-10	10.25	0.281
6140.3	1628.6	21.7	-10	10.43	0.29
6136.7	1629.6	0.2	-5	9.67	0.224
6139.5	1628.8	9.4	-5	9.96	0.255
6142.2	1628.1	15.5	-5	10.21	0.281
6140.1	1628.6	0.4	0	9.82	0.235
6143	1627.9	8.2	0	10.11	0.266
6145.5	1627.2	13.7	0	10.35	0.29
6147.9	1626.6	0.2	10	10.03	0.263
6150.7	1625.8	5.6	10	10.3	0.29

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

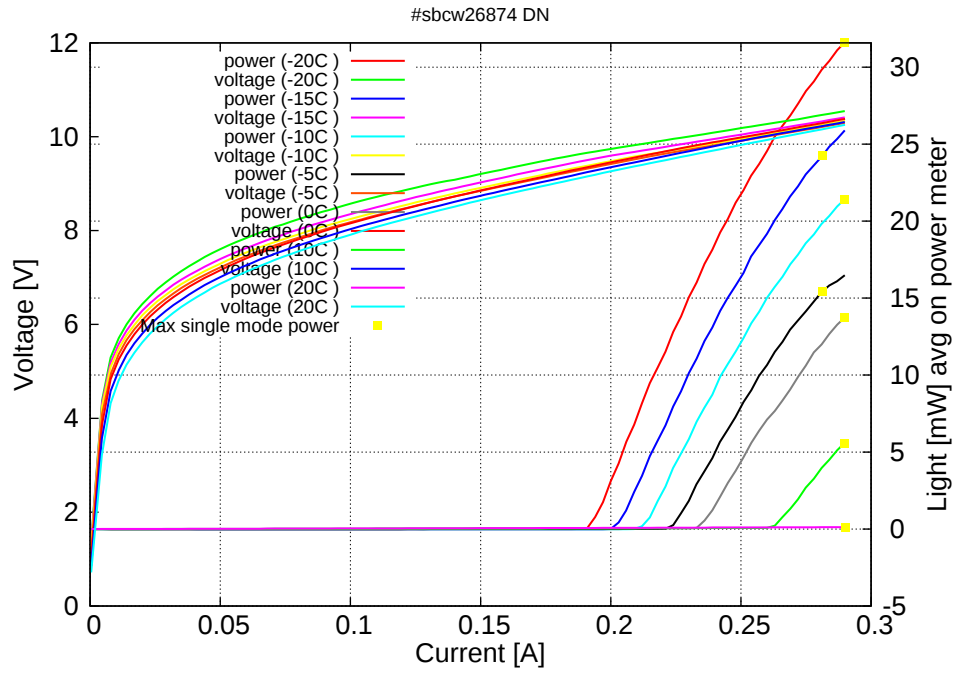


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.19A$ / $V_{th}=9.5V$ (2-wires measurements). Maximum operation current: 0.29A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

