

Datasheet for #sbcw26869 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.

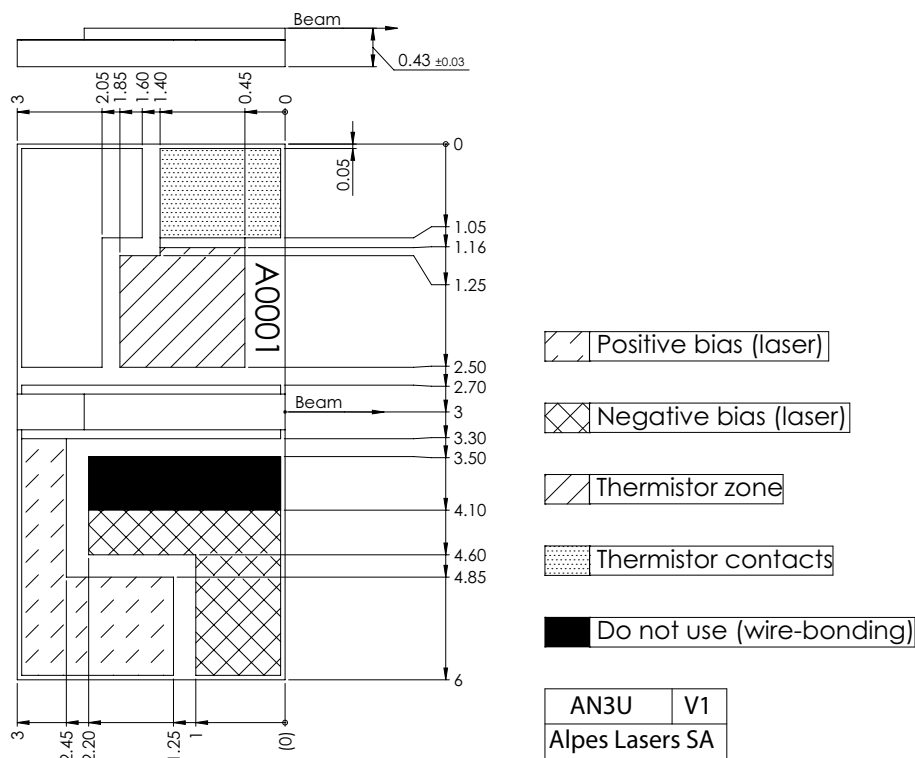


Figure 1: Mechanical and electrical interface for #sbcw26869 DN (please note that AlN submount numbering is A0VDL)

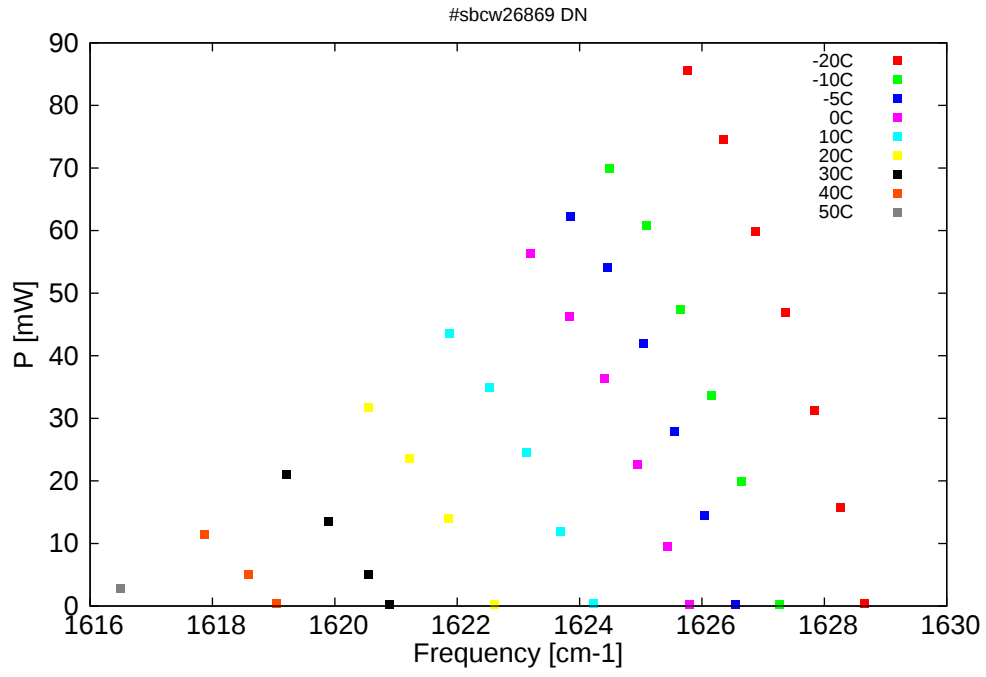


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

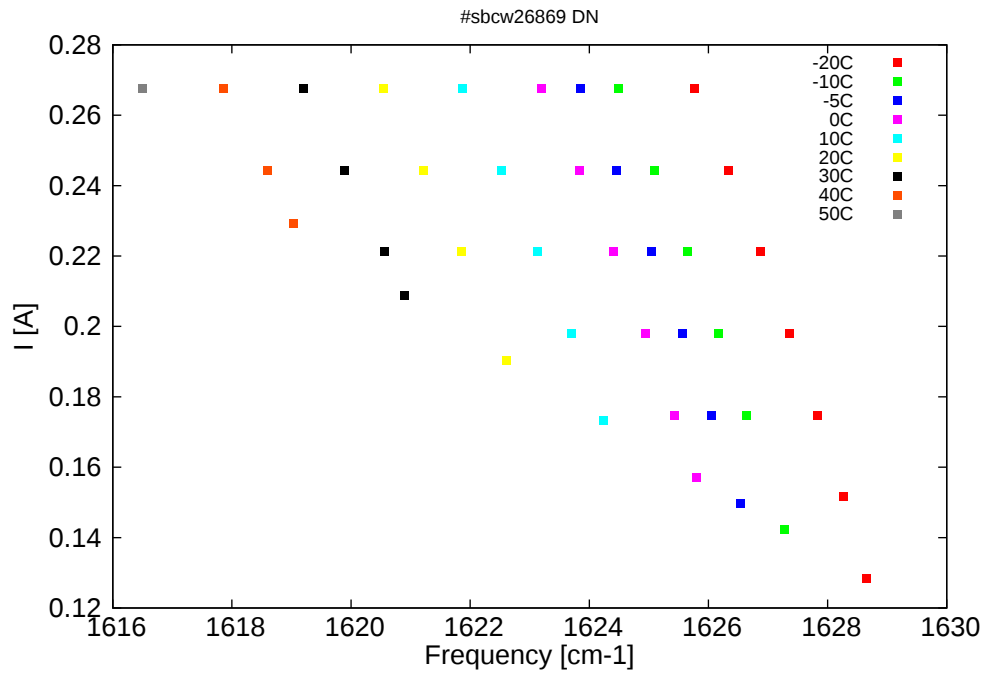


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
6140	1628.7	0.4	-20	8.82	0.128
6141.5	1628.3	15.7	-20	9.06	0.152
6143.1	1627.8	31.2	-20	9.3	0.175
6144.9	1627.4	46.9	-20	9.52	0.198
6146.8	1626.9	59.9	-20	9.74	0.221
6148.8	1626.3	74.5	-20	9.97	0.244
6150.9	1625.8	85.5	-20	10.19	0.268
6145.2	1627.3	0.3	-10	8.91	0.142
6147.6	1626.6	19.9	-10	9.24	0.175
6149.5	1626.2	33.6	-10	9.47	0.198
6151.4	1625.7	47.4	-10	9.7	0.221
6153.5	1625.1	60.8	-10	9.92	0.244
6155.8	1624.5	69.9	-10	10.15	0.268
6148	1626.5	0.3	-5	8.96	0.15
6149.9	1626	14.5	-5	9.21	0.175
6151.7	1625.6	27.9	-5	9.45	0.198
6153.7	1625	42	-5	9.68	0.221
6155.9	1624.5	54.1	-5	9.9	0.244
6158.2	1623.8	62.3	-5	10.13	0.268
6150.8	1625.8	0.3	0	9.01	0.157
6152.2	1625.4	9.6	0	9.19	0.175
6154.1	1624.9	22.6	0	9.42	0.198
6156.1	1624.4	36.3	0	9.65	0.221
6158.3	1623.8	46.2	0	9.88	0.244
6160.7	1623.2	56.4	0	10.12	0.268
6156.8	1624.2	0.4	10	9.12	0.173
6158.8	1623.7	11.8	10	9.38	0.198
6160.9	1623.1	24.6	10	9.61	0.221
6163.2	1622.5	34.9	10	9.84	0.244
6165.7	1621.9	43.6	10	10.08	0.268
6162.9	1622.6	0.3	20	9.25	0.19
6165.8	1621.9	14	20	9.56	0.221
6168.2	1621.2	23.6	20	9.8	0.244
6170.8	1620.5	31.7	20	10.04	0.268
6169.4	1620.9	0.3	30	9.39	0.209
6170.7	1620.6	5	30	9.52	0.221
6173.2	1619.9	13.5	30	9.76	0.244
6175.9	1619.2	21.1	30	10	0.268
6176.5	1619	0.4	40	9.55	0.229
6178.2	1618.6	5	40	9.71	0.244
6181	1617.9	11.4	40	9.96	0.268
6186.2	1616.5	2.8	50	9.91	0.268

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

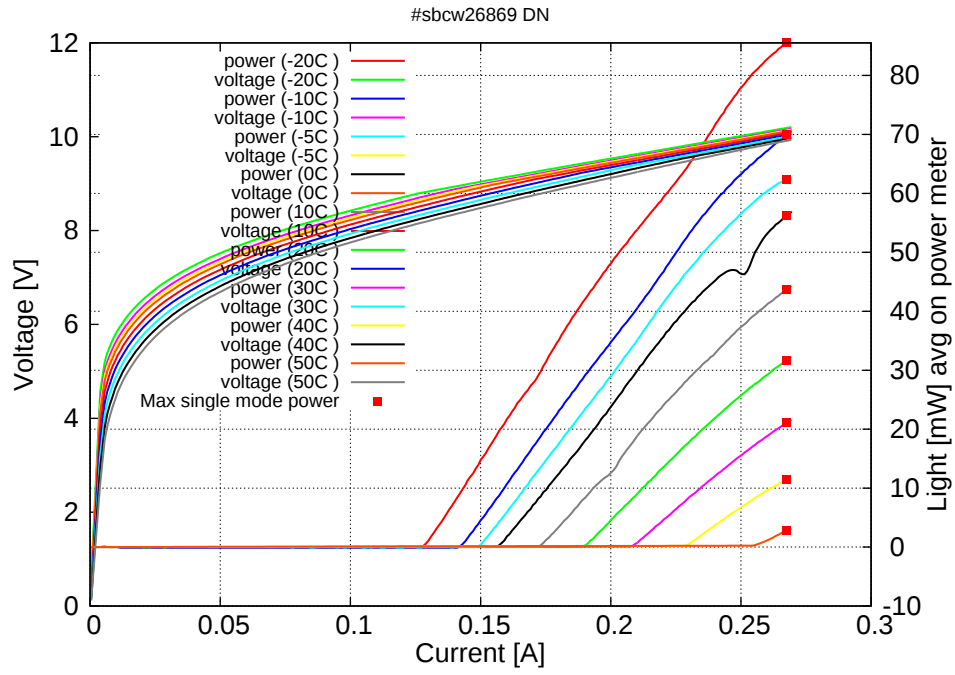


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.13A$ / $V_{th}=8.8V$ (2-wires measurements). Maximum operation current: 0.27A for all temperatures.

