

Datasheet for #sbcw26569 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 #sbcw26569 DN (please note that AlN submount numbering is A0U6C)

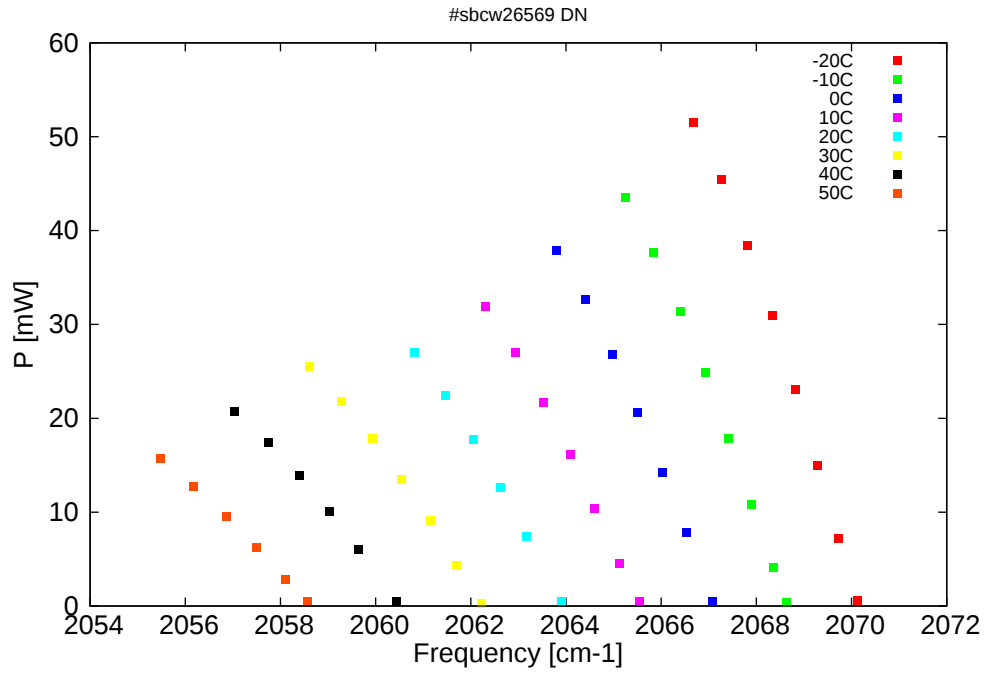


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

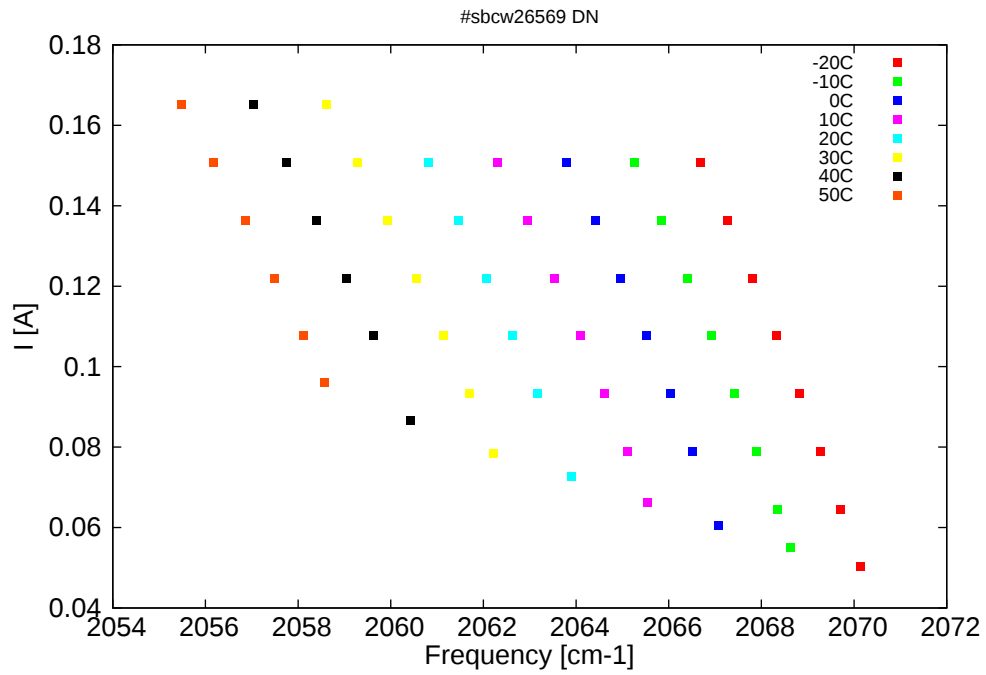


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4830.6	2070.1	0.6	-20	11.04	0.05
4831.6	2069.7	7.2	-20	11.41	0.065
4832.6	2069.3	15	-20	11.75	0.079
4833.7	2068.8	23.1	-20	12.06	0.093
4834.8	2068.3	31	-20	12.37	0.108
4836	2067.8	38.5	-20	12.67	0.122
4837.3	2067.3	45.4	-20	12.98	0.136
4838.7	2066.7	51.5	-20	13.3	0.151
4834.1	2068.6	0.3	-10	11.06	0.055
4834.8	2068.4	4	-10	11.29	0.065
4835.8	2067.9	10.9	-10	11.63	0.079
4836.9	2067.4	17.9	-10	11.95	0.093
4838.1	2066.9	24.9	-10	12.25	0.108
4839.3	2066.4	31.4	-10	12.55	0.122
4840.6	2065.8	37.6	-10	12.84	0.136
4842	2065.3	43.5	-10	13.15	0.151
4837.7	2067.1	0.4	0	11.09	0.061
4839	2066.5	7.8	0	11.51	0.079
4840.2	2066	14.2	0	11.83	0.093
4841.4	2065.5	20.7	0	12.13	0.108
4842.7	2065	26.8	0	12.42	0.122
4844	2064.4	32.6	0	12.72	0.136
4845.4	2063.8	37.9	0	13.02	0.151
4841.4	2065.5	0.5	10	11.13	0.066
4842.3	2065.1	4.5	10	11.4	0.079
4843.5	2064.6	10.4	10	11.72	0.093
4844.7	2064.1	16.1	10	12.01	0.108
4846.1	2063.5	21.7	10	12.31	0.122
4847.4	2062.9	27	10	12.6	0.136
4848.9	2062.3	31.9	10	12.89	0.151
4845.2	2063.9	0.5	20	11.19	0.073
4846.9	2063.2	7.4	20	11.62	0.093
4848.2	2062.6	12.6	20	11.92	0.108
4849.5	2062.1	17.8	20	12.2	0.122
4850.9	2061.5	22.5	20	12.49	0.136
4852.4	2060.8	27	20	12.78	0.151
4849.2	2062.2	0.3	30	11.23	0.079
4850.4	2061.7	4.3	30	11.52	0.093
4851.7	2061.1	9.1	30	11.82	0.108
4853.1	2060.6	13.5	30	12.1	0.122
4854.5	2059.9	17.9	30	12.39	0.136
4856	2059.3	21.8	30	12.67	0.151
4857.7	2058.6	25.5	30	12.96	0.165
4853.4	2060.4	0.5	40	11.32	0.087
4855.2	2059.6	6	40	11.72	0.108
4856.6	2059	10.1	40	12.01	0.122
4858.2	2058.4	13.9	40	12.28	0.136
4859.7	2057.7	17.4	40	12.56	0.151
4861.3	2057	20.7	40	12.84	0.165

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$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
4857.7	2058.6	0.5	50	11.43	0.096
4858.8	2058.1	2.8	50	11.64	0.108
4860.3	2057.5	6.3	50	11.92	0.122
4861.8	2056.9	9.5	50	12.19	0.136
4863.4	2056.2	12.7	50	12.46	0.151
4865	2055.5	15.8	50	12.74	0.165

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

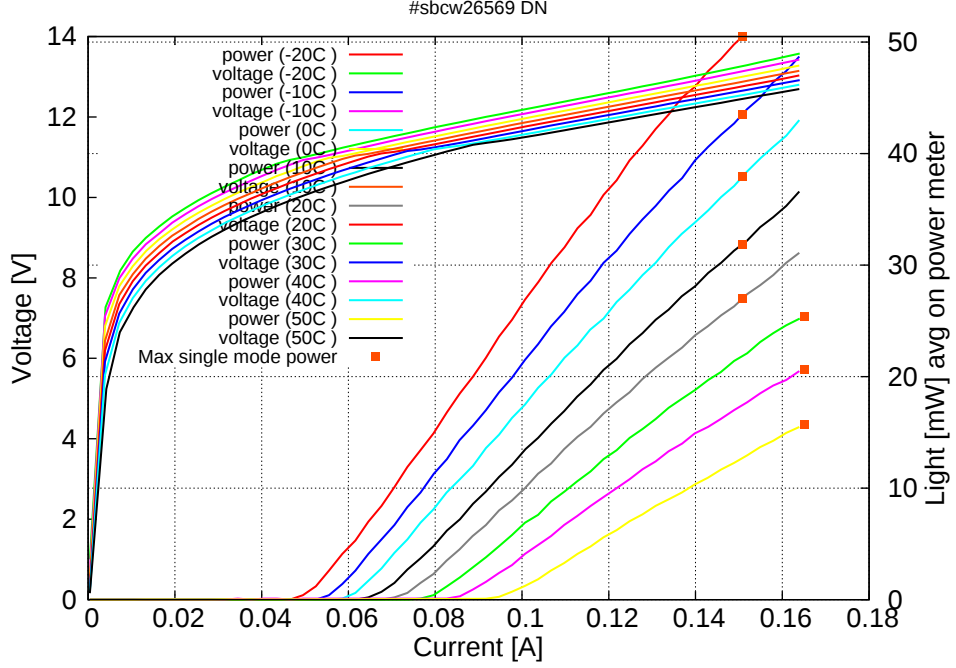


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20°C: $I_{th}=0.05\text{A}$ / $V_{th}=11.0\text{V}$ (2-wires measurements). Maximum operation current: 0.15A between -20°C and 20°C, 0.165A between 30°C and 50°C.

Figure 3: spectra at different temperatures for various DC currents

