

Datasheet for #sbcw12472 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.

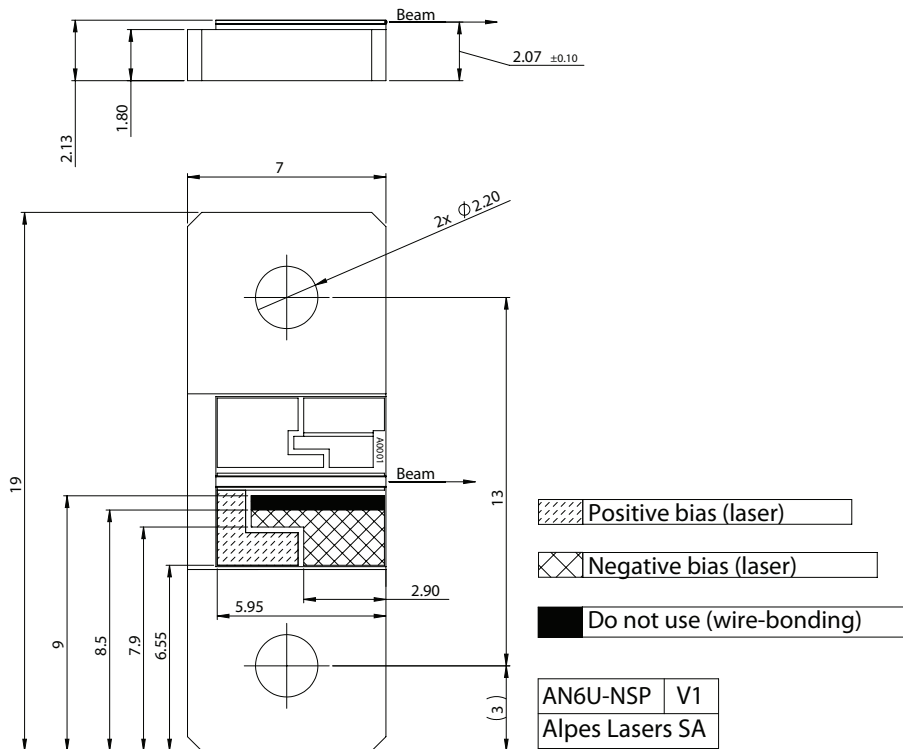


Figure 1: Mechanical and electrical interface for #sbcw12472 DN

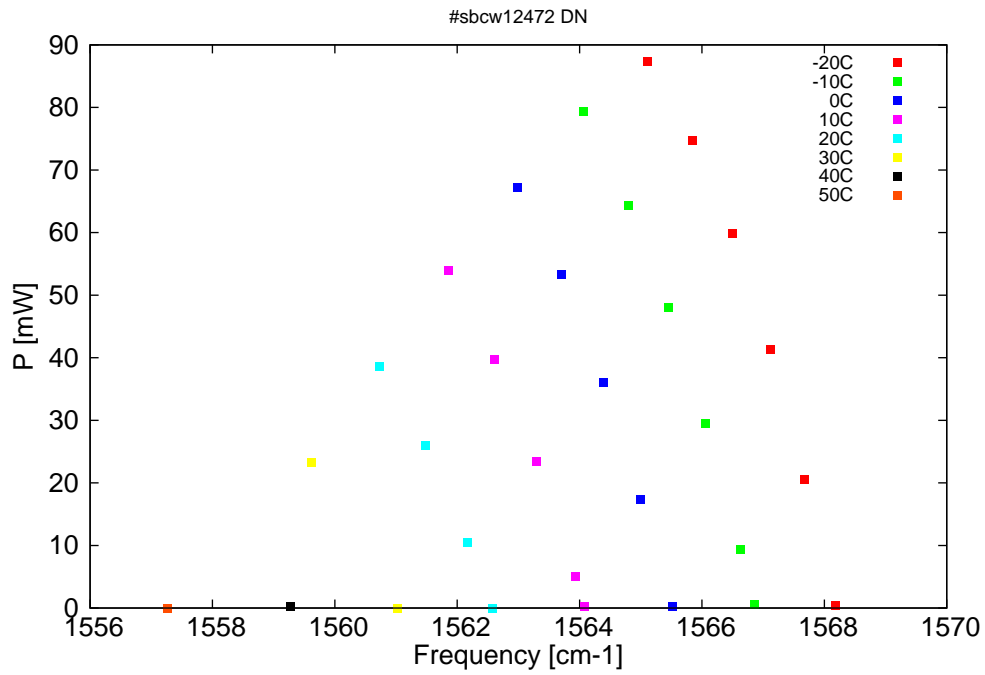


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

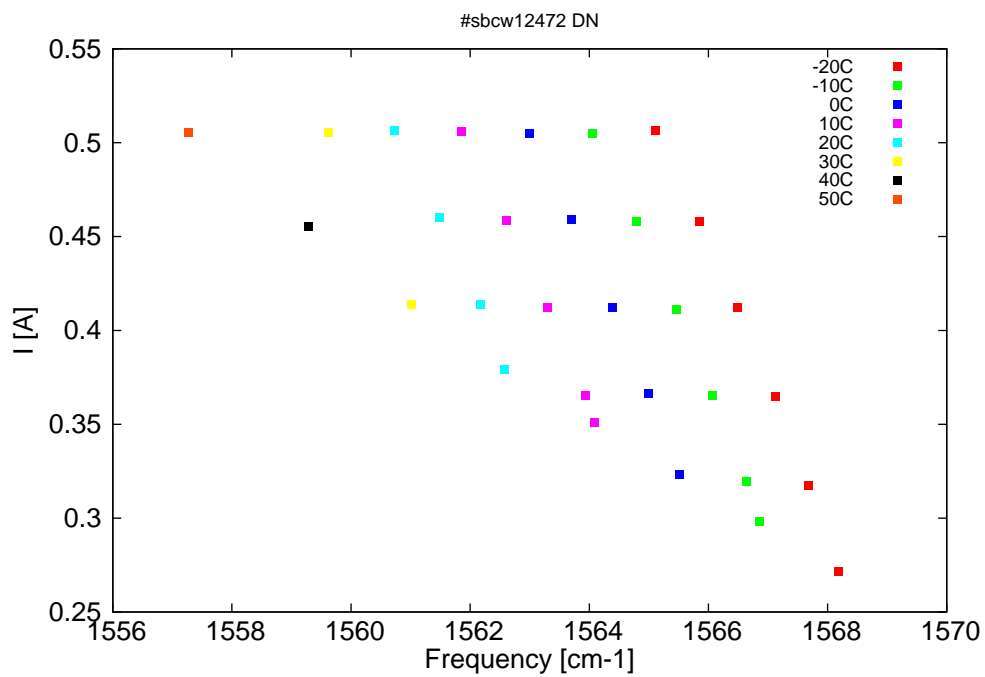


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
6376.8	1568.2	0.4	-20	10.79	0.272
6378.8	1567.7	20.5	-20	11.13	0.317
6381.1	1567.1	41.4	-20	11.47	0.365
6383.7	1566.5	59.9	-20	11.8	0.412
6386.3	1565.8	74.8	-20	12.11	0.458
6389.3	1565.1	87.3	-20	12.43	0.506
6382.2	1566.9	0.6	-10	10.74	0.298
6383.1	1566.6	9.4	-10	10.9	0.32
6385.4	1566.1	29.5	-10	11.23	0.366
6387.9	1565.5	48	-10	11.54	0.411
6390.6	1564.8	64.3	-10	11.86	0.458
6393.6	1564.1	79.4	-10	12.17	0.505
6387.7	1565.5	0.3	0	10.71	0.323
6389.8	1565	17.4	0	11	0.366
6392.3	1564.4	36	0	11.32	0.412
6395.1	1563.7	53.3	0	11.63	0.459
6398	1563	67.2	0	11.94	0.505
6393.5	1564.1	0.3	10	10.67	0.351
6394.1	1563.9	5	10	10.75	0.365
6396.7	1563.3	23.4	10	11.08	0.412
6399.5	1562.6	39.7	10	11.38	0.459
6402.7	1561.9	53.9	10	11.7	0.506
6399.7	1562.6	0	20	10.76	0.379
6401.4	1562.2	10.4	20	10.96	0.414
6404.2	1561.5	26	20	11.28	0.46
6407.3	1560.7	38.5	20	11.59	0.506
6406.1	1561	0	30	10.7	0.414
6411.8	1559.6	23.3	30	11.29	0.505
6413.2	1559.3	0.3	40	10.78	0.455
6421.5	1557.3	0	50	10.93	0.505

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

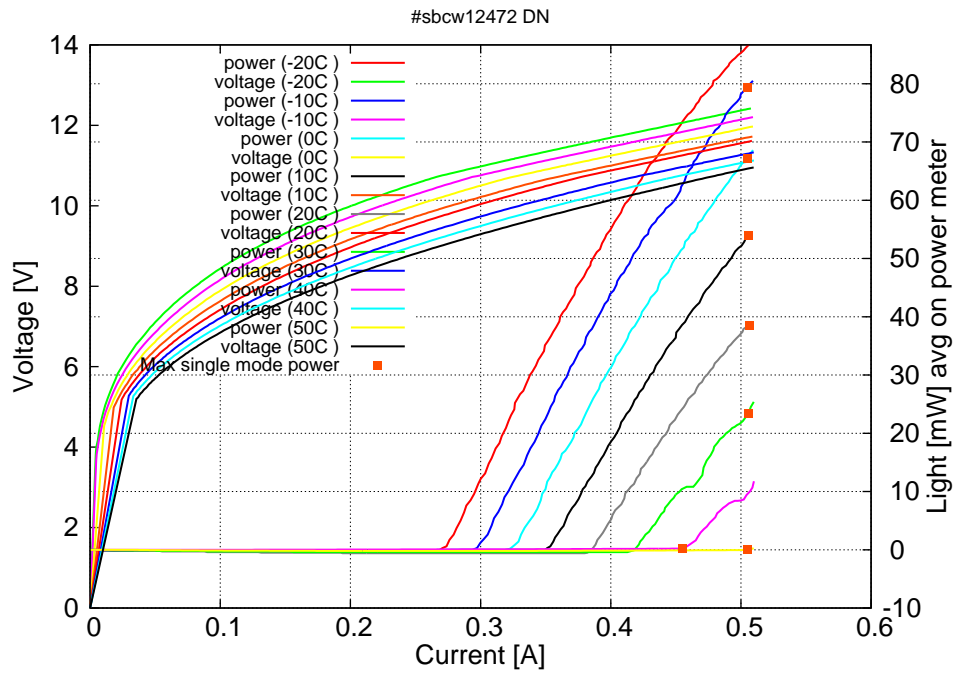


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.27A$ / $V_{th}=10.7V$ (2-wires measurements). Maximum operation current: 0.51A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

