OSA-1310-CC

SOA Chip On Carrier, 1310nm

**OSA-1310-CC is a 1310nm SOA (Semiconductor Optical Amplifier) chip on AlN carrier. It is designed for both high gain and low polarization dependence at a controlled temperature range.**

## KEY FEATURES

- ✧ High gain in 1310nm LWDM range
- ✧ Low polarization dependent gain
- ✧ Operation at controlled temperature and hermetic package

## APPLICATION

- ✧ 100G ZR4 Application
- ✧ Pre-amplifier

## DESCRIPTION

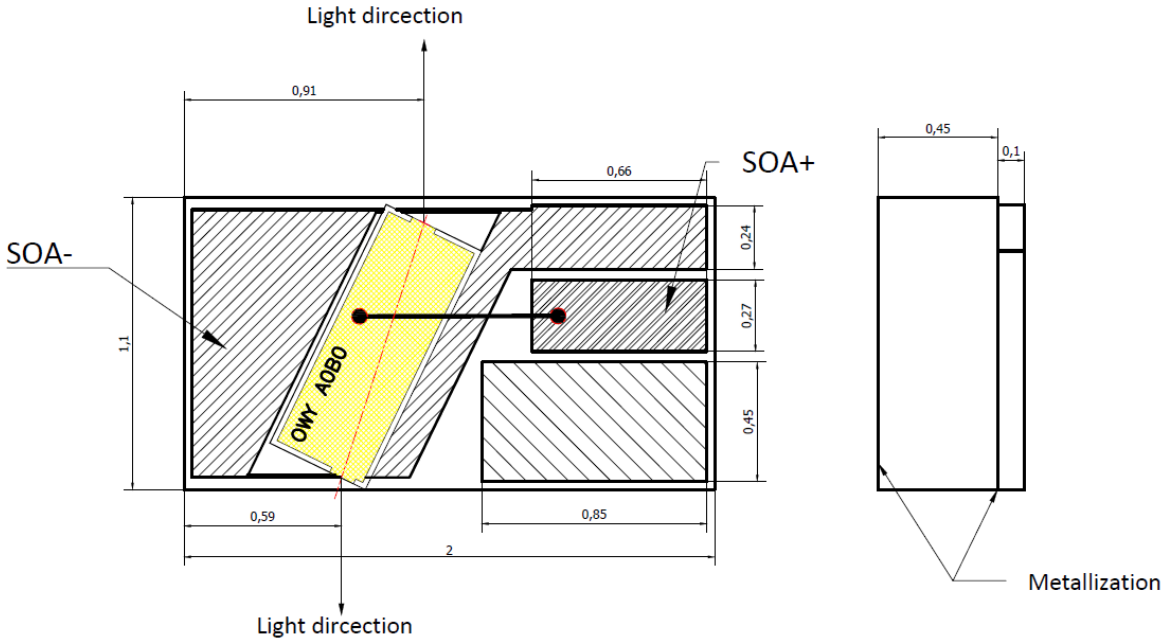
Expected performance not guaranteed. Customer design and assembly process may impact the parameter values.

| ELECTRICAL AND OPTICAL CHARACTERISTICS (Test temperature=25°C, unless otherwise specified) | | | | | | |
|---|---|---|---|---|---|---|
| **Symbol** | **Parameter** | **Test Conditions** | **Min.** | **Typ.** | **Max.** | **Unit** |
| G | Gain | CW, Iop=100mA,Pin=-20dBm* | 16 | 18 | | dB |
| PDG | Polarization Dependent Gain | CW, Iop=100mA,Pin=-20dBm* | | 1 | 2 | dB |
| Psat | Saturation Power | CW, Iop=100mA,Gain-3dB* | 6 | 7 | | dBm |
| NF | Noise Figure | CW, Iop=100mA,Pin=-20dBm* | | 7.5 | | dB |
| $P_{ASE}$ | Optical Power | CW, Iop=100mA | | 1 | | mW |
| Vf | Forward Voltage | CW, Iop=100mA | | 1.1 | 1.3 | V |
| Fv | Far-field Angle, Vertical | | | 31 | | deg |
| Fh | Far-field Angle, Horizontal | | | 23 | | deg |

*Wavelength of Pin is within LWDM4 channels: 1295.56/1300.05/1304.58/1309.14nm

| ABSOLUTE MAXIMUM RATINGS | | | | |
|---|---|---|---|---|
| **Symbol** | **Parameter** | **Min** | **Max** | **Unit** |
| $V_{RL}$ | LD Reverse Voltage | | 2 | V |
| If | LD Forward Current | | 200 | mA |
| ESD | ESD(HBD) | 500 | | V |
| $T_{stg}$ | Storage Temperature | -40 | 85 | ºC |

## MECHANICAL DIMENSION (mm) and PIN ASSIGNMENT




## DEVICE HANDLING

- ✧ The chip is sensitive and should be handled with care. Both waveguide section and cavity facets should not be touched to avoid any damage.
- ✧ Electrostatic discharge may cause direct or latent damage to chip. During assembly, precautions for handling electrostatically sensitive devices must be observed.

## REVISION HISTORY

| Version | Subject | Release Date |
|---|---|---|
| 1.0 | Initial Release | 2023/6/1 |
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