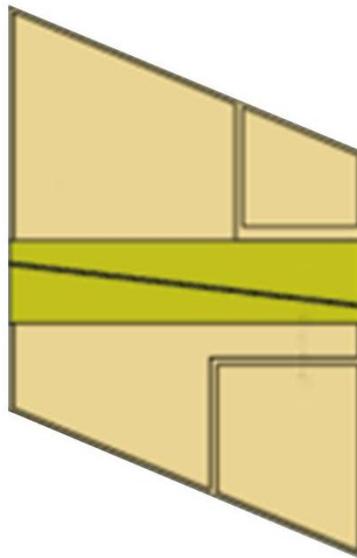


1550nm SOA COC Chip



- **Product Description**

C-band SOA chip, 2500um, ridge waveguide

- **Product features**

Carrier chip、 High gain, high saturation power、 High pulse modulation speed、 Polarization dependence

- **Part Number**

MP-SOA-1550-30db-25-CoC

● Application area

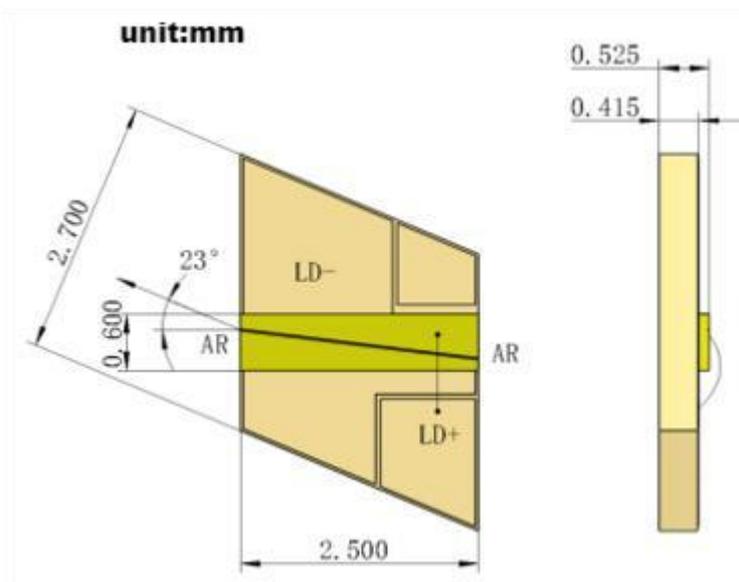
Optical Communication Systems | Photonic Integrated Circuits | Fiber

Optic Sensing | Quantum Optics | Data Centers

● Core parameters

| Center wavelength |
|-------------------|
| 1550nm |

● Dimension Drawing



● General Parameters

Main Parameters:

| Parameters | Unit | Min | Typ | Max | Condition |
|--------------------|------|------|-----|------|-----------|
| Working wavelength | nm | 1525 | | 1572 | C band |
| | nm | 1572 | | 1622 | L band |
| | nm | 1622 | | 1672 | U band |



| Parameters | Unit | Min | Typ | Max | Condition |
|--------------------------------------|------|-----|-----|-----|---|
| Small Signal Gain | dB | 30 | | | If=500mA, Pin=-15dBm |
| | | | | | Top =30 °C, |
| Wavelength-dependent gain | dB | | | 1 | If=500mA, Pin =0dBm, |
| | | | | | Top =30 °C |
| Max. Output optical power | dBm | 19 | | | Pin =0dBm, If=500mA, |
| | | | | | Top =30 °C, |
| | | | | | Integrated power |
| Saturated output power | dBm | | 16 | | 3dB down, If=800mA |
| Noise Index | dB | | 4.5 | 6 | If=300mA, |
| | | | | | Pin =-10dBm Top =30 °C, TE module input |
| Fall/Rise time | ns | | | 1 | 10%~90% |
| Forward voltage | V | | 1.5 | 1.8 | $I_f=I_{OP}$ |
| Series resistance | Ohms | | | 9 | Bar, slope 50mA 100mA |
| light entrance end NA | Deg. | | 23 | | |
| Chip spot diameter | um | | 4.5 | 5 | |
| X Directional light divergence angle | Deg. | | 23 | 30 | FWHM, $I_f=I_{OP}$ |
| Y Directional light divergence angle | Deg. | | 23 | 30 | FWHM, $I_f=I_{OP}$ |

Environment

| Parameters | Unit | Min | Typ | Max | Condition |
|-----------------------------|------|--|-----|-----|-----------|
| Operating temperature | °C | 10 | 30 | 40 | Top |
| Packaging | | Sealed, nitrogen filled | | | |
| Storage temperature | °C | -40 | | 85 | |
| Short-term storage humidity | % | | | 50 | |
| Long-term storage | | It is recommended to store in nitrogen | | | |



| Parameters | Unit | Min | Typ | Max | Condition |
|------------|------|-----------|-----|-----|-----------|
| | | or vacuum | | | |

Appendix 1: Model and Part Number Comparison Table

| Part Number | Title | Operating Wavelength | Small Signal Gain | Max. Output Power |
|-------------------------|----------------------|----------------------|-------------------|-------------------|
| MP-SOA-1550-30db-25-CoC | 1550nm S OA COC Chip | 1550±25nm | 30dB | 19dbm |
| MP-SOA-1600-30db-25-CoC | 1600nm S OA COC Chip | 1600±25nm | 30dB | 19dbm |
| MP-SOA-1650-30db-25-CoC | 1650nm S OA COC Chip | 1650±25nm | 30dB | 19dbm |