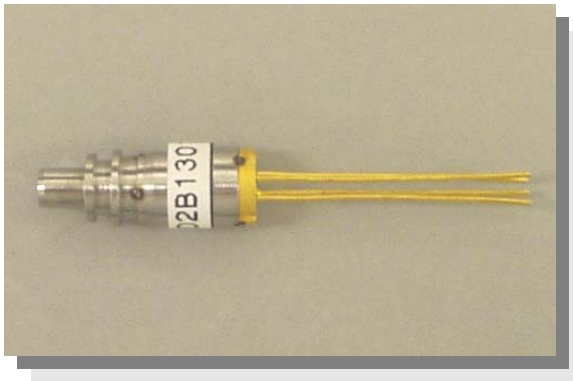




AC3410 Series

Uncooled 1.25 Gbps 1310 nm Fabry Perot Laser in TOSA Package



and high reliability laser is suitable for applications up to 1.25 Gb/s in short haul links or local networks, including OC-3 and OC-12 applications.

Features

- 1310 nm typical emission wavelength
- Wide operation temperature range (from -40 to 85°C)
- High Reliability
- Multi-quantum Well (MQW) active layer

Description

The AC3410 series lasers are uncooled semiconductor InAlGaAs Fabry Perot laser working at 1310 nm wavelength. The device is delivered in hermetic TOSA package with photodiode for optical power monitoring. This high performance,

Applications

- Telecommunication
- Data Communication
- Storage area networks

Absolute Maximum Rating

| Parameter | Symbol | Ratings | Unit |
|-------------------------------|-----------|-----------------|--------------------|
| Forward Current (Laser Diode) | I_{OL} | 100 | mA |
| Reverse Voltage (Laser Diode) | V_{RL} | 2 | V |
| Reverse Voltage (Photodiode) | V_{RD} | 20 | V |
| Forward Current (Photodiode) | I_{FD} | 2 | mA |
| Case Temperature | T_C | $-40 \sim +85$ | $^{\circ}\text{C}$ |
| Storage Temperature | T_{stg} | $-40 \sim +100$ | $^{\circ}\text{C}$ |

Electrical/Optical Characteristics (T_c=25°C)

| Parameter | Symbol | Test Condition | Min. | Typ. | Max. | Unit |
|----------------------|---------------------------------|--|------|------|------|------|
| Threshold Current | I _{th} | CW | | 10 | 15 | mA |
| | | CW at 85°C | | 25 | 35 | |
| Output Power | P _o | CW, I _o = I _{th} + 20mA | 0.5 | | | mW |
| Operating Voltage | V _{op} | CW, T _c = -40°C ~ +85°C | | 1.1 | 1.5 | V |
| Center Wavelength | λ _c | CW | 1280 | 1310 | 1340 | nm |
| Spectral Width (RMS) | Δλ | CW, T _c = -40°C ~ +85°C | | 1.5 | 3 | nm |
| Tracking Error | ΔP _o | P _o (I _o = I _{th} + 20mA, 25°C) T _c = -40°C ~ +85°C | | -1.0 | | dB |
| Rise and fall Time | T _r , T _f | I _f = I _{th} , I _b = I _{th} , 10~90% | | 200 | 240 | ps |
| Monitor Current | I _m | CW, V _{RD} = 1V | 0.1 | | | mA |
| Monitor Dark Current | I _d | V _{RD} = 10V | | | 0.1 | μA |
| Capacitance | C _t | V _{RD} = 10V, f = 1MHz | | 10 | 20 | pF |

Ordering Information:

AC3410-X

X=A, or B for the pin-out configurations (See next page)

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Outline Drawings

(Customer package designs are available)

