

# 1.31μm SLD MODULE

## AS3B119GM10M

The AS3B119GM10M are 1.31μm SLD(Super-Luminescent Diode) modules developed as incoherent light sources for various optical measurements. The device emits incoherent light having wide spectral half width and high output power from PMF (polarization-maintaining fiber).

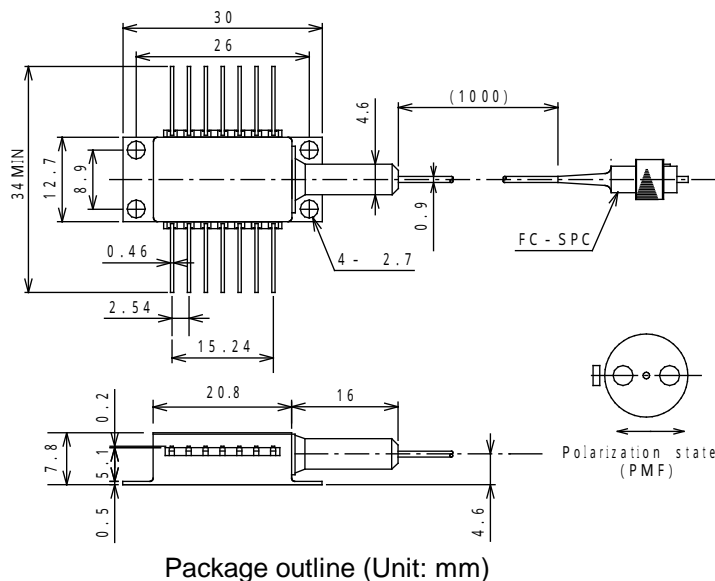
### ◆ FEATURES

- High optical output : 15mW/≤400mA
- Wide spectral half width  $\Delta\lambda=50\text{nm}$  (min.)
- Built-in optical isolator
- Internal monitor PD and TEC

### ◆ APPLICATIONS

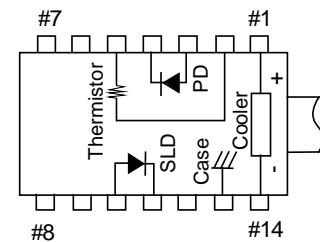
- Optical sensor
- Optical Coherent Tomography(OCT)
- Optical measurement

### ◆ DIMENSIONS



### ◆ ABSOLUTE MAXIMUM RATINGS (T<sub>SLD</sub>=25deg.C)

| Item                       | Symbol           | Rating     | Unit  |
|----------------------------|------------------|------------|-------|
| SLD Forward Current        | I <sub>F</sub>   | 480        | mA    |
| SLD Reverse Voltage        | V <sub>R</sub>   | 2          | V     |
| PD Forward Current         | I <sub>FD</sub>  | 10         | mA    |
| PD Reverse Voltage         | V <sub>RD</sub>  | 10         | V     |
| Operating Case Temperature | T <sub>C</sub>   | -20 to +75 | deg.C |
| Storage Temperature        | T <sub>stg</sub> | -40 to +85 | deg.C |
| Cooler Current             | I <sub>C</sub>   | 2          | A     |



| No. | FUNCTION     | No. | FUNCTION       |
|-----|--------------|-----|----------------|
| 1   | Cooler anode | 8   | NC             |
| 2   | Thermistor   | 9   | NC             |
| 3   | PD anode     | 10  | SLD anode      |
| 4   | PD cathode   | 11  | SLD cathode    |
| 5   | Thermistor   | 12  | NC             |
| 6   | NC           | 13  | Case           |
| 7   | NC           | 14  | Cooler cathode |

Pin Configuration

### ◆ OPTICAL AND ELECTRICAL CHARACTERISTICS (T<sub>SLD</sub>=25deg.C, T<sub>C</sub>=25deg.C)

| Item                  | Symbol          | Test condition  | Min. | Typ. | Max. | Unit |
|-----------------------|-----------------|---|------|------|------|------|
| Forward Voltage       | V <sub>F</sub>  | P <sub>F</sub> =15mW                                  |      |      | 2.5  | V    |
| Forward Current (BOL) | I <sub>F</sub>  | P <sub>F</sub> =15mW                                  |      |      | 400  | mA   |
| Center Wavelength     | λ <sub>C</sub>  | P <sub>F</sub> =15mW, -3dB                            | 1290 | 1310 | 1330 | nm   |
| Spectral Width        | Δλ              | P <sub>F</sub> =15mW, -3dB                            | 50   | 55   |      | nm   |
| Spectral Ripple       | M               | P <sub>F</sub> =15mW, res=0.1nm                       |      |      | 0.6  | dB   |
| Monitor Current       | I <sub>m</sub>  | P <sub>F</sub> =15mW, V <sub>RD</sub> =5V             | 100  |      | 2000 | μA   |
| PD Dark Current       | I <sub>d</sub>  | V <sub>RD</sub> =5V                                   |      |      | 0.1  | μA   |
| Tracking Error        | ΔP <sub>f</sub> | I <sub>m</sub> =const, T <sub>C</sub> =-20 to 75deg.C |      |      | 0.5  | dB   |
| Cooler Voltage        | V <sub>C</sub>  | I <sub>F</sub> =*EOL, T <sub>C</sub> =75deg.C         |      |      | 3.5  | V    |
| Cooler Current        | I <sub>C</sub>  | I <sub>F</sub> =*EOL, T <sub>C</sub> =75deg.C         |      |      | 1.2  | A    |
| Thermistor Resistance | R <sub>th</sub> | T <sub>SLD</sub> =25deg.C, B=3900±100K                | 9.5  | 10   | 10.5 | kΩ   |
| Optical Isolation     | R <sub>o</sub>  | =1310nm, T <sub>SLD</sub> =25deg.C                    |      | 30   |      | dB   |

(Note) \*EOL=BOL X 1.2

(Note) Polarization state of SLD is aligned parallel to the slow axis.

Anritsu Corporation reserves the right to change the design or specification of the product at any time without notice.