

## C-1XXXA-DFB-E-XX-NT



## Absolute Maximum Rating (Tc=25°C)

| Parameter             | Symbol           | Value      | Unit |
|-----------------------|------------------|------------|------|
| Optical Output Power  | P <sub>o</sub>   | 8(CW)      | mW   |
| LD Reverse Voltage    | V <sub>RLD</sub> | 2          | V    |
| LD Forward Current    | I <sub>FLD</sub> | 150        | mA   |
| PD Reverse Voltage    | V <sub>RPD</sub> | 15         | V    |
| PD Forward Current    | I <sub>FPD</sub> | 2          | mA   |
| Operating Temperature | T <sub>opr</sub> | 0 to +70   | °C   |
| Storage Temperature   | T <sub>stg</sub> | -40 to +85 | °C   |

## Optical and Electrical Characteristics( Tc=70°C )

| Parameter            | Symbol          | Min | Typical | Max | Unit | Test Condition              |
|----------------------|-----------------|-----|---------|-----|------|-----------------------------|
| Threshold Current    | I <sub>th</sub> | -   | -       | 50  | mA   | CW                          |
| Optical Output Power | P <sub>o</sub>  | 6   | 8       | -   | mW   | CW, I=I <sub>th</sub> +60mA |

## Optical and Electrical Characteristics( Tc=25°C)

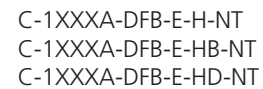
| Parameter                                 | Symbol                          | Min | Typical | Max  | Unit  | Test Condition                                |
|-------------------------------------------|---------------------------------|-----|---------|------|-------|-----------------------------------------------|
| Threshold Current                         | I <sub>th</sub>                 | -   | -       | 20   | mA    | CW                                            |
| Optical Output Power                      | P <sub>o</sub>                  | 3   | 4       | -    | mW    | CW, I=I <sub>th</sub> +20mA                   |
| Peak Wavelength*                          | λ                               | n-3 | n       | n+3  | nm    | CW, P <sub>o</sub> =5mW                       |
| Side Mode Suppression Ratio               | Sr                              | 30  | 35      | -    | dB    | CW, P <sub>o</sub> =5mW (0 to 70°C)           |
| Forward Voltage                           | V <sub>F</sub>                  | -   | -       | 1.7  | V     | CW                                            |
| Temperature dependence of peak wavelength | Δλ <sub>p</sub> /ΔT             | -   | 0.1     | 0.12 | nm/°C | CW, P <sub>o</sub> =5mW (0 to 70°C)           |
| Rise/Fall Time                            | t <sub>r</sub> / t <sub>f</sub> | -   | -       | 0.5  | ns    | I <sub>bias</sub> =I <sub>th</sub> , 20-80%   |
| Spectral Width                            | Δλ                              | -   | -       | 1    | nm    | CW, P <sub>o</sub> =5mW, -20dB                |
| PD Monitor Current                        | I <sub>m</sub>                  | 100 | -       | 1200 | μA    | CW, P <sub>o</sub> =5mW, V <sub>RPD</sub> =5V |
| PD Dark Current                           | I <sub>DARK</sub>               | -   | 0.3     | 1.0  | μA    | V <sub>RPD</sub> =5V                          |
| PD Capacitance                            | C <sub>t</sub>                  | -   | 10      | -    | pF    | V <sub>RPD</sub> =5V, f=1MHz                  |

\* Peak wavelength n=1270nm,1290nm,1310nm,1330nm,1350nm,1370nm,1390nm,1410nm,1430nm,1450nm,1470nm,1490nm, 1510nm,1530nm,1550nm, 1570nm,1590nm,1610nm

\* Precaution:

- 1.Avoid eye or skin exposure to laser radiations.
- 2.The device is sensitive to the electro-static damages (ESD). The device should be handled with ESD proof tools. To assemble the device on PCB, proper grounding is required to prevent ESD
- 3.The performance and reliability of the device are not guaranteed when it is operated under environment with strong vibration .

## Mechanical Drawing

2

## C-1XXXXA-DFB-E-XX-NT

## Ordering Information

## Available Options:

C-1XXXXA-DFB-E-LA-NT  
C-1XXXXA-DFB-E-LAB-NT  
C-1XXXXA-DFB-E-LAD-NT  
C-1XXXXA-DFB-E-H-NT  
C-1XXXXA-DFB-E-HB-NT  
C-1XXXXA-DFB-E-HD-NT  
C-1XXXXA-DFB-E-A-NT  
C-1XXXXA-DFB-E-AB-NT  
C-1XXXXA-DFB-E-AD-NT

Note : 1XXXXA : 1270A ~ 1610A

## Warnings

**Handling Precautions:** This device is susceptible to damage as a result of electrostatic discharge (ESD). A static free environment is highly recommended. Follow guidelines according to proper ESD procedures.

**Laser Safety:** Radiation emitted by laser devices can be dangerous to human eyes. Avoid eye exposure to direct or indirect radiation.

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