

T1550DFB/R1310nm 155M LC BOSA

FB-C3243ASL-00

Features:

High stability DFB laser chip
InGaAs/InP PIN detector with TIA
Operate temperature from -40°C to +85°C
LC Receptacle

Specification:

Absolute Maximum Ratings

| Parameter | Symbol | Condition | Min | Max | Unit |
|----------------------------|-----------|-----------|-----|-----|------|
| Operating Case Temperature | T_c | -- | -40 | 85 | °C |
| Storage Temperature | T_{stg} | -- | -40 | 85 | °C |
| Lead solder Temperature | -- | -- | | 260 | °C |
| Lead Soldering Time | -- | -- | | 10 | s |

Optical/Electrical Characteristics (T=25°C, unless otherwise stated)

1310nm FP Laser Transmitter

| Parameter | Symbol | Min | Typ | Max | Unit | Test Conditions |
|------------------------------------|--------------------------|------|------|------|-------|-------------------|
| Optical Output Power | P_o | 1.0 | -- | 2.0 | mW | CW, $I_{op}=30mA$ |
| Threshold Current | I_{th} | -- | 10 | 15 | mA | T=25 °C |
| Forward Voltage | V_F | -- | 1.1 | 1.6 | V | |
| Operating Current | I_{op} | -- | 30 | 40 | mA | CW, T=25 °C |
| Center Wavelength | λ_c | 1530 | 1550 | 1570 | nm | CW, T=25 °C |
| Spectral Width (-20 dB) | $\Delta\lambda$ | -- | 0.1 | 1.0 | nm | |
| Wavelength temperature coefficient | $\Delta\lambda/\Delta T$ | | 0.08 | 0.12 | nm/°C | |
| Side-Mode Suppression Ratio | SMSR | 35 | 40 | | dB | $I_{op}=30mA$ |
| Relaxation Oscillation Frequency | f_R | -- | 4.5 | -- | GHZ | $I_{op}=30mA$ |
| Rise/Fall Times | t_R, t_F | -- | -- | 0.1 | ns | 20% to 80% |
| Monitor Current | I_{mon} | 100 | -- | 1000 | μA | $V_R=5 V,$ |
| Monitor Dark Current | I_D | -- | -- | 200 | nA | $V_R=5 V$ |

1550nm 155Mbps Receiver

| Parameter | Symbol | Min | Typ | Max | Unit | Test Conditions |
|---------------------------|-----------|------|------|------|-------|---------------------------------------|
| Supply Voltage | VCC | 3.0 | - | 5.5 | V | |
| Supply Current | ICC | - | - | 35 | mA | No loads |
| Differential responsivity | R_d | 0.1 | -- | 120 | mV/uW | $R_{load}=100 \Omega, \lambda=1310nm$ |
| Single ended responsivity | R_s | 0.05 | -- | 60 | mV/uW | $R_{load}=50 \Omega, \lambda=1310nm$ |
| Small-Signal Bandwidth | Bw | 115 | - | - | MHZ | $\lambda = 1310 nm, P_f=10uW$ |
| Rise /Fall Time(20%~80%) | Tr/f | | - | 4.5 | ns | $\lambda = 1310 nm, P_f=10uW$ |
| Saturation Power | P_{sat} | -3 | | | dBm | $\lambda=1310nm$ |
| Wavelength | λ | 1250 | 1310 | 1390 | nm | |

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|-------------------------------|----|----|-----|-----|-----|--|
| Single ended output impedance | Ro | -- | 50 | -- | ohm | |
| Sensitivity | | | -36 | -34 | dBm | $\lambda = 1310 \text{ nm}$, 155Mbps, BER=1E-10 |

Dimensions And Package Outline

