

1650 nm DFB LASER DIODE MODULE
UNCOOLED MQW DFB LD WITH PIGTAIL

DL-5300S-1650 Series

FEATURES

- 2 1650 nm Uncooled Laser Diode with MQW Structure
- 2 High Reliability, Long Operation Life
- 2 Single Frequency Operation with High SMSR
- 2 Speed up to 2.5 Gbps
- 2 0 to 70°C operation without active cooling
- 2 Build-in InGaAs monitor

APPLICATION

Trunk Line, OTDR

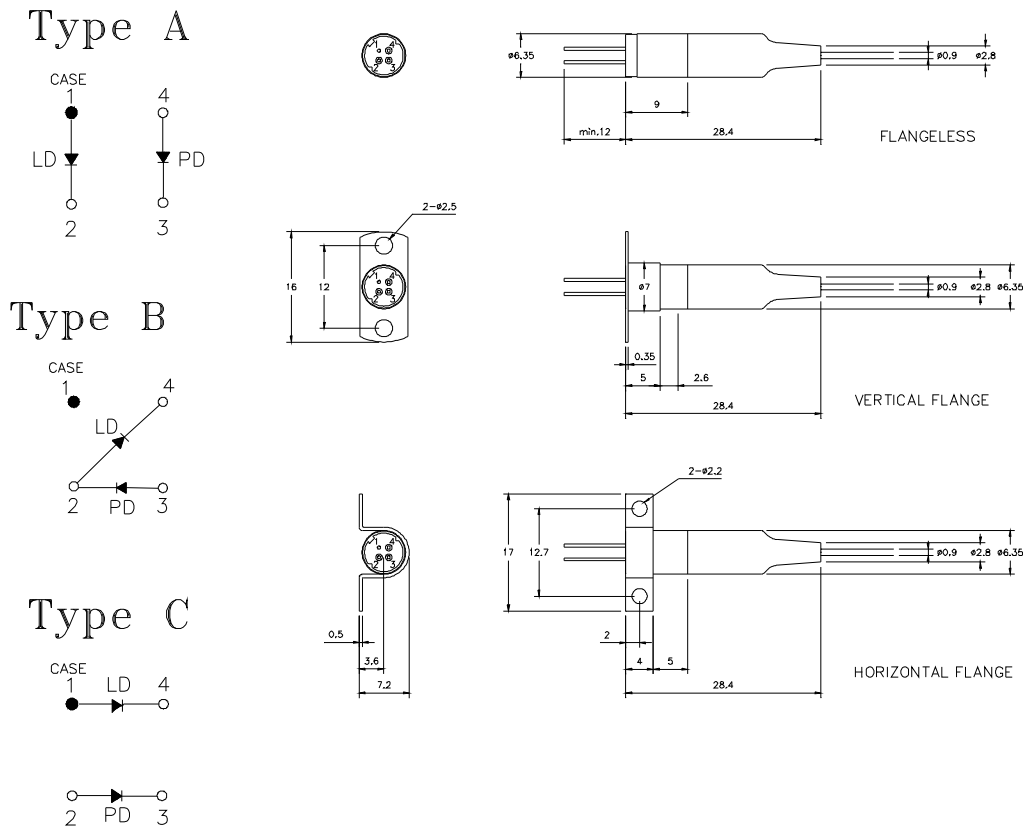
DESCRIPTION

DL-5300S-1650 series are designed for coupling a single mode optical fiber with 1650 nm MQW DFB uncooled laser diode. These modules are ideally suitable for long reach and intermediate reach OC-3, OC-12, and OC-48 transmission application.

| ELECTRICAL AND OPTICAL CHARACTERISTICS (T_C=25 °C) | | | | | | |
|---|---|--|------------|------|------|------|
| Symbol | Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
| I _{th} | Threshold Current | CW | | 10 | 15 | mA |
| V _{OP} | Operating Voltage | CW, I _F = I _{th} +25mA | | 1.2 | 1.5 | V |
| P _f | Optical Output Power Part No: DL-532XS-1650 DL-533XS-1650 | CW, I _F = I _{th} +25mA | 1.0 2.0 | | | mW |
| λ _c | Center Wavelength | CW, P _o = P _f | 1640 | 1650 | 1660 | nm |
| SMSR | Side Mode Suppression Ratio | CW, I _{th} +25mA | 30 | 35 | | dB |
| t _r , t _f | Rise And Fall Times | I _F =I _{th} , I _{th} +25mA, 20~ 80% | | | 150 | ps |
| ΔP _f / P _f | Tracking Error | APC, 0~+70 °C | - | - | ±1.5 | dB |
| I _m | PD Monitor Current | CW, I _{th} +25mA, V _{RD} =1V | 100 | | 1500 | μA |
| I _D | PD Dark Current | V _{RD} =5V | | | 0.1 | μA |
| C _t | PD Capacitance | V _{RD} =5V, f=1MHz | | 10 | 15 | pF |

| ABSOLUTE MAXIMUM RATINGS (T_C=25 °C) | | | |
|---|---------------------------------------|---------|------|
| Symbol | Parameter | Ratings | Unit |
| P _o | Optical Output Power (532XS/533XS) | 1.5/3 | mW |
| V _{RL} | LD Reverse Voltage | 2 | V |
| V _{RD} | PD Reverse Voltage | 10 | V |
| I _{FD} | PD Forward Current | 1.0 | mA |
| T _{opr} | Operating Temperature | 0 to 70 | °C |
| T _{stg} | Storage Temperature | -40~+85 | °C |

MECHANICAL DIMENSION (mm) and PIN ASSIGNMENT



Note: Specifications subject to change without notice.

ORDER INFORMATION

Part No.: D L - 5 3 - 1 6 5 0 -

| Code | Pout (mw) |
|------|-----------|
| 2 | 1 |
| 3 | 2 |

| Code | Pin Assignment |
|------|----------------|
| 0 | Type A |
| 5 | Type B |
| 8 | Type C |

| Code | Speed |
|-------|-----------|
| Blank | 1.25 Gbps |
| S | 2.5 Gbps |

| Code | Flange |
|------|------------|
| V | Vertical |
| H | Horizontal |
| X | No Flange |

| Code | Connector |
|------|--------------|
| S | SC/PC |
| F | FC/PC |
| T | ST/PC |
| X | No connector |
| SA | SC/APC |
| FA | FC/APC |
| TA | ST/APC |

| Code | Isolator |
|-------|--------------|
| Blank | No |
| S | Single-Stage |