

### Fabry-Perot Laser

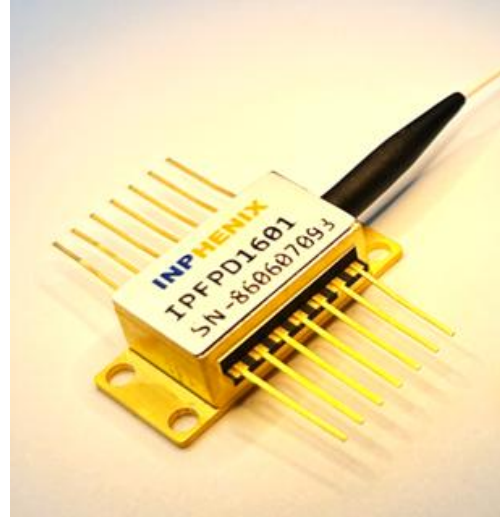
#### IPFPD1402(1490nm)

##### Features

- High Peak Optical Power (Pulsed)
- SM, MM and PM fiber options
- Custom packaging available
- 14-pin BUT / 14-pin DIL Available

##### Applications

- Optical Sensor
- OTDR
- Range Finding
- Spectroscopy



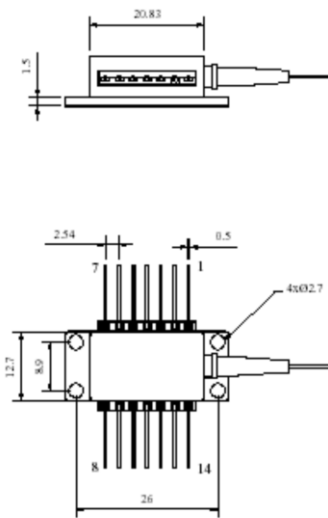
##### Device Specifications

| Parameter            | Symbol          | Min. | Typ. | Max. | Unit |
|----------------------|-----------------|------|------|------|------|
| Peak Wavelength      | $\lambda_c$     | 1450 | 1490 | 1500 | nm   |
| Spectrum Width (rms) | $\Delta\lambda$ | -    | 20   | -    | nm   |
| Pulse Output Power   | $P_o$           | -    | 180  | -    | mW   |
| Forward Current      | $I_F$           | -    | -    | 1000 | mA   |
| Threshold Current    | $I_{th}$        | -    | 20   | -    | mA   |

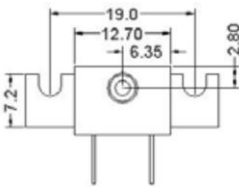
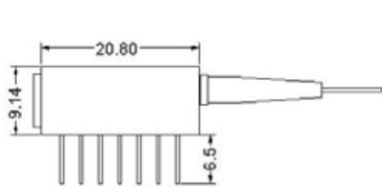
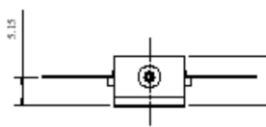
##### Absolute Maximum Ratings

| Parameter                    | Min.   | Max. | Unit |
|------------------------------|--|------|------|
| Operating Temperature        | - 20   | 70   | °C   |
| Storage Temperature          | - 40   | 85   | °C   |
| TEC Drive Current            | -  | 1.5  | A    |
| TEC Drive Voltage            | -  | 3.6  | V    |
| Maximum Current              | 200  |      | mA   |
| Thermistor Resistance        | 10k $\Omega$ @ 25°C                                  |      |      |
| SLD Chip Temperature Setting | 25°C   |      |      |
| Fiber Type                   | SMF/PMF/MMF  |      |      |
| Fiber Jacket                 | 250 $\mu$ m tight buffer with 900 $\mu$ m loose tube |      |      |
| Package                      | 14-pin DIL/14-pin BUT                                |      |      |
| Lead Solder Temperature      | 260°C for 10 Seconds                                 |      |      |

Package Dimensions

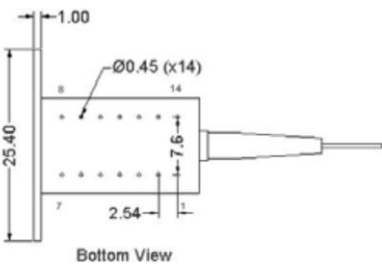


14-Pin BUT Package



14-Pin DIL Package

Dimensions in mm  
Tol: ±0.13

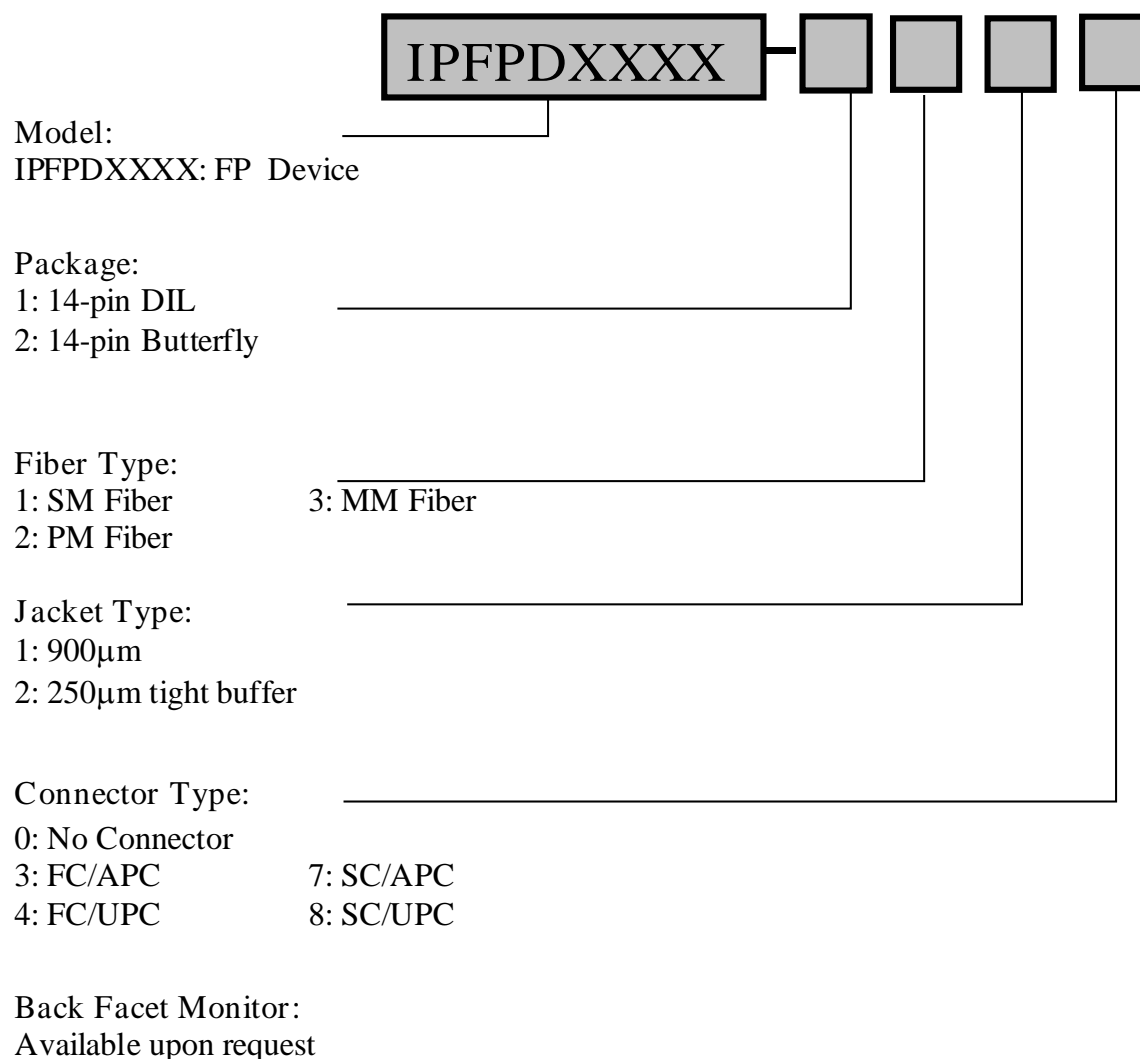


Pin Definition

| 14-pin BUT package |            |     |          | 14-pin DIL package |          |     |            |
|--------------------|------------|-----|----------|--------------------|----------|-----|------------|
| Pin                | Function   | Pin | Function | Pin                | Function | Pin | Function   |
| 1                  | TEC (+)    | 8   | NC       | 1                  | TEC (+)  | 8   | NC         |
| 2                  | Thermistor | 9   | NC       | 2                  | NC       | 9   | LD (-)     |
| 3                  | NC         | 10  | LD (+)   | 3                  | NC       | 10  | Case       |
| 4                  | NC         | 11  | LD (-)   | 4                  | NC       | 11  | Thermistor |
| 5                  | Thermistor | 12  | NC       | 5                  | LD (+)   | 12  | Thermistor |
| 6                  | NC         | 13  | Case     | 6                  | NC       | 13  | NC         |
| 7                  | NC         | 14  | TEC (-)  | 7                  | NC       | 14  | TEC (-)    |

- If the LD is ordered with a Back Facet Monitor, Pin 7 is PD-Cathode and Pin 8 is PD+Anode

### Part Numbering System



Example: IPFPD1402-1224: 1490nm FP in 14-pin DIL with 250μm tight buffered PM Fiber with FC/UPC connectors

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