

INPHENIX

Super-Luminescent Light Emitting Diode Device

IPSDD0706 (770nm)

Features

- Wide Optical Bandwidth
- Customer Wavelength Available
- High Output Power in SM/or PM Fiber

Applications

- Broadband Light Source
- Fiber Optic Sensor (FOS)
- Biomedical Imaging Device
- Illumination for OCT System



Device Specifications

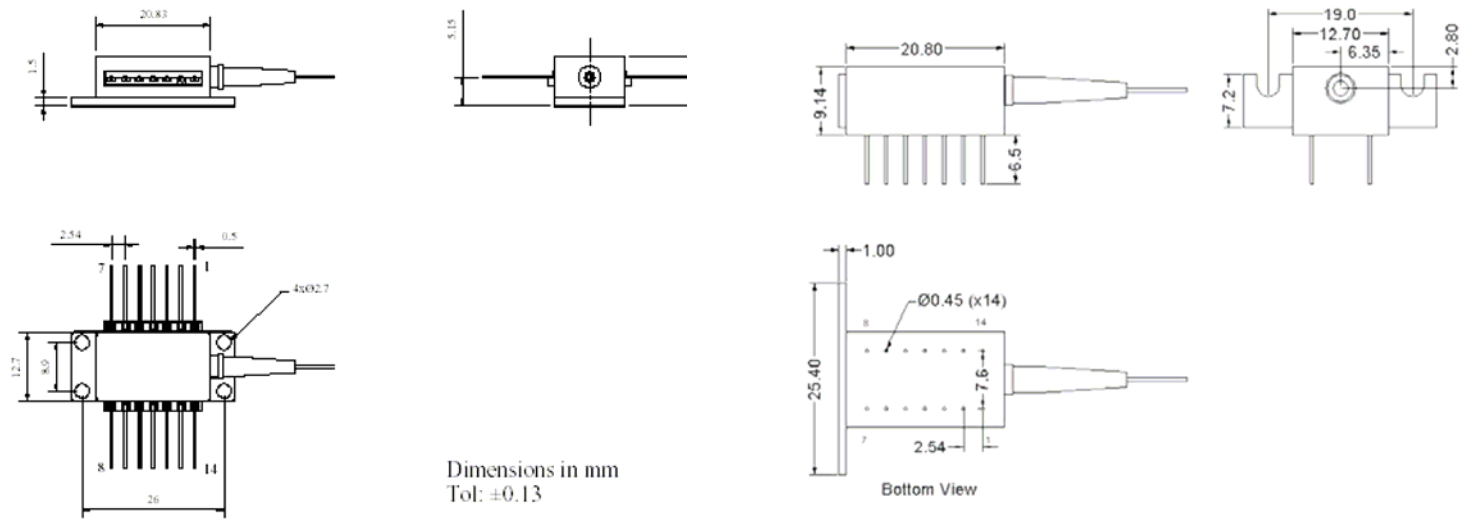
| Parameter | Symbol | Min. | Typ. | Max. | Unit |
|--|------------------------|------|------|------|------|
| Central Wavelength | λ_c | 760 | 770 | 780 | nm |
| 3dB Bandwidth | $\Delta\lambda_{3dB}$ | 22 | 25 | - | nm |
| Output Power in SM Fiber | P_o | 5 | 8 | - | mW |
| Spectral Modulation Depth _{p-p} | Δ | - | 0.1 | 0.15 | dB |
| Operating Current | I_F | - | 140 | 200 | mA |
| Back Facet Monitor | Available upon request | | | | |

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 | 220 | | mA |
| Thermistor Resistance | 10k Ω @ 25°C | | |
| SLD Chip Temperature Setting | 25°C | | |
| Fiber Type | SMF/PMF/MMF | | |
| Fiber Jacket | 250 μ m tight buffer with 900 μ m loose tube | | |
| Package | 14-pin DIL/14-pin BUT/8-pin BUT | | |
| Lead Solder Temperature | 260°C for 10 Seconds | | |

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Package Dimensions



14-Pin BUT Package

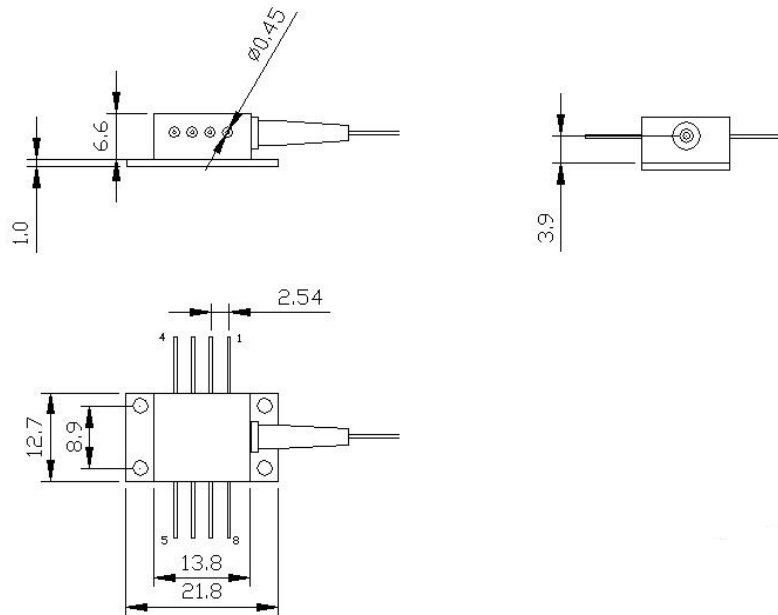
14-Pin DIL Package

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 | SLD (-) |
| 3 | NC | 10 | SLD (+) | 3 | NC | 10 | Case |
| 4 | NC | 11 | SLD (-) | 4 | NC | 11 | Thermistor |
| 5 | Thermistor | 12 | NC | 5 | SLD (+) | 12 | Thermistor |
| 6 | NC | 13 | Case | 6 | NC | 13 | NC |
| 7 | NC | 14 | TEC (-) | 7 | NC | 14 | TEC (-) |

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

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8-Pin BUT Package

Pin Definition

| 8-pin BUT package | |
|-------------------|------------|
| Pin | Function |
| 1 | TEC (+) |
| 2 | NC |
| 3 | NC |
| 4 | SLED (+) |
| 5 | SLED (-) |
| 6 | Thermistor |
| 7 | Thermistor |
| 8 | TEC (-) |

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Part Numbering System



Model:

IPSDDXXXX: SLD Device

Package:

- 1: 14-pin DIL
- 2: 8-pin Butterfly
- 3: 14-pin Butterfly

Fiber Type:

- 1: SM Fiber
- 2: PM Fiber
- 3: MM Fiber

Jacket Type:

- 1: 900 μ m
- 2: 250 μ m tight buffer

Connector Type:

- 0: No Connector
- 3: FC/APC
- 4: FC/UPC
- 7: SC/APC
- 8: SC/UPC

Back Facet Monitor:

Available upon request

Example: IPSDD0805-1224: 850nm SLD in 14-pin DIL with 250 μ m tight buffered PM Fiber with FC/UPC connectors

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