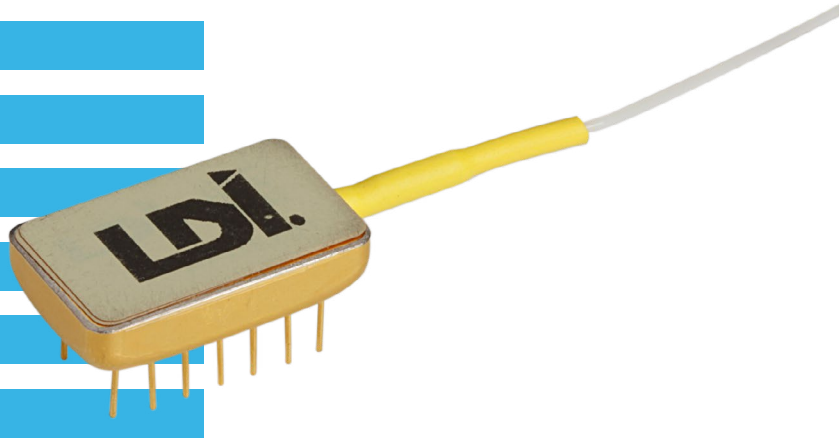


OSI LaserDiode

LDPW Series

PINFET Optical Receiver

The PINFET LDPW series provides an excellent solution for optical receiver systems requiring high sensitivity and a wide dynamic range. The applications include telecommunications line-terminating equipment or repeaters and optical sensor systems. The receiver package offers high reliability satisfying Telcordia specifications.

Applications

- Telecommunications line-terminating equipment
- Telecommunications repeaters
- Optical sensor systems

Features

- GR-468-CORE Telcoridia Qualified
- High Sensitivity
- High Overload Power
- Wide Dynamic Range
- 850, 1310, 1550nm Operation
- Hermetic 14 Pin DIP Package
- MIL or IEC Screening available upon request

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Positive Supply Voltage	V_R	-	+7	V
Negative Supply Voltage	I_F	-	-7	V
Operating Temperature*	T_{OP}	-40	+70	°C
Storage Temperature*	T_{STG}	-40	+85	°C
Detector Bias	V_B	-	-10	V
Soldering Time @ 260°C	T_{SLD}	-	10	Sec

*Non-Condensing

Typical Electro-Optical Specifications at T_A=25 °C (±5.0 VDC)

	Minimum Bandwidth[1]	Suggested Data Rate[2]	Sensitivity[3]		Dynamic Range	Transimpendance
	MHz	Mb/s	dBm		dB	kΩ
AGC			Typ	Max	Typ	
LDPW 0001R	1	1	-60	-58	57	1120
LDPW 0003	3	4	-56	-54	53	1100
LDPW 0012	12	17	-52	-50	49	350
LDPW 0024	24	34	-50	-48	47	340
LDPW 0036	36	52	-48	-46	45	210
LDPW 0065	65	90	-43	-41	40	60

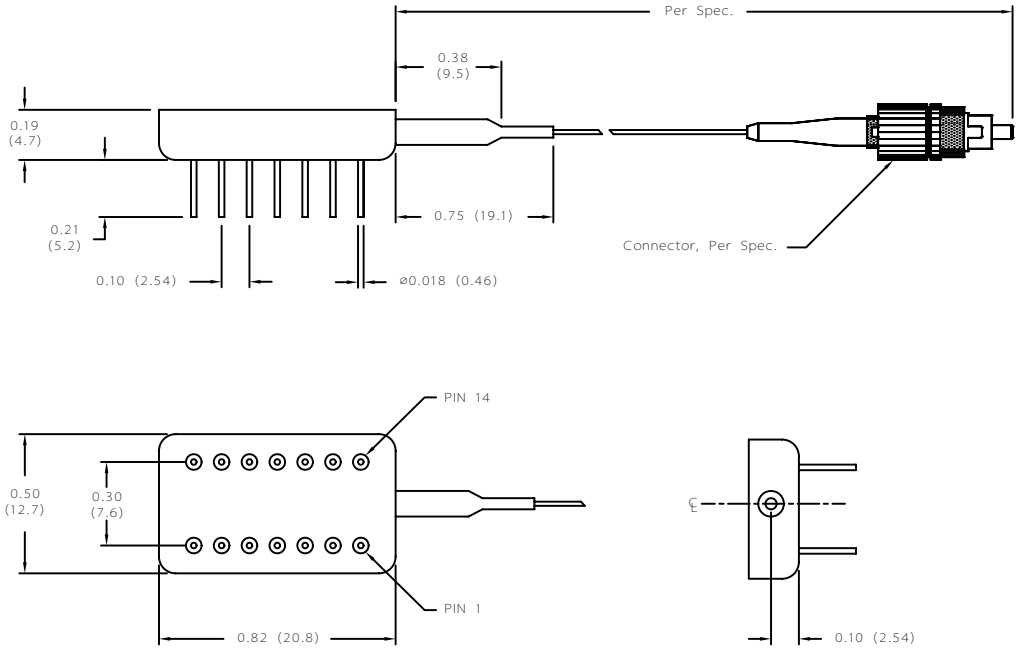
1. Bandwidth is measured at the –3dB point.
2. A given bandwidth will typically support an NRZ data rate of 1.4 times the 3dB bandwidth.
3. Sensitivity is calculated using the noise voltage measured at T_A =25°C for a BER of 10^{-9}

Common Characteristics at T_A=25 ºC

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Dark Current	I_D	V_R = -5V	-	0.5	1	nA
Maximum Optical Input	-	V_R = -5V	-3	0	-	dBm
Sensitivity Derating Over Temperature	-	-	-	-	1	dB
Detector Responsivity	R_λ	λ = 1300nm	-	0.90	-	A/W
		λ = 1550nm	-	0.95	-	A/W
Maximum Output Signal Level	-	-	-	0.8	-	V_{PP}
Output Impedance	-	-	-	10	-	Ω
Load Impedance	-	-	-	1000	-	Ω
Supply Voltage	-	-	4.5		5.5	V
Power Supply Current	-	+5V	-	25	35	mA
	-	-5V	-	10	15	mA
Fiber - MM Tight Buffer	-	50/125/245/900				µm

Mechanical Specifications

Units are in inches (mm)



PIN ASSIGNMENTS	
PIN Number	Function
1	-5V detector bias
2, 6, 9, 11	no connection
12, 13, 14	no connection
3, 5, 8	ground
4	-5 volts
7	output
10	+5 volts

Part Numbering Diagram

0003 = 3MHz
0004 = 4MHz
0012 = 12MHz
0024 = 24MHz
0032 = 32MHz
0065 = 65MHz
0120 = 120MHz
0250 = 250MHz ← Bandwidth

LDPW _ _ _ _ _ _ _ **R** ← RoHS Compliant Designator

Connector Type →
FC = FC / PC
LC = LC / PC
SC = SC / PC
ST = ST®
No Characters = No Connector

Warranty

Please refer to your product purchase agreement for complete details or check with your OSI LaserDiode sales representative.

Legal Disclaimer

Information in this data sheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject to change without notice.

RoHS COMPLIANT

