1.55 μm WDM PIN PHOTODIODES PD-5100 SERIES

FEATURES

- ✧ High responsivity at 1550 nm
- ✧ High attenuation at 1310 nm
- ✧ Low dark current
- ✧ Quick pulse response
- ✧ Hermetically sealed 3-pin metal case
- ✧ Active diameter 75 μm

DESCRIPTION

PD-5100 series Photodiode are suited to receive the light at the wavelength 1550 nm. With high reliability and high isolation between 1310 nm and 1550 nm (at least 30 dB), PD-5100 series are the best choice for 1550 nm / 1310 nm WDM telecom and datacom application.

ELECTRICAL AND OPTICAL CHARACTERISTICS (T_C=25ºC)

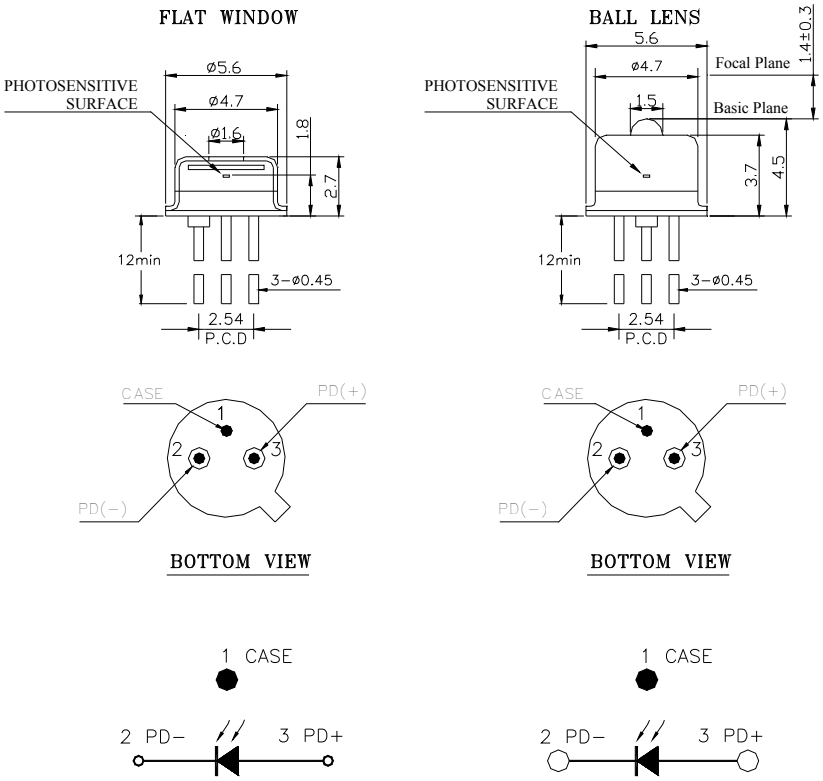
Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
	Active Area			75		μm
	Detection Range		1480	1550	1600	nm
R	Responsivity	V_R=5V, λ=1550nm λ=1310nm	0.8	0.85 -	- 0.005	A/W
I_{dark}	Dark Current	V_R=5V		0.3	0.7	nA
C	Capacitance	V_R=5V		0.7	0.9	pF
T_r /T_f	Rise/Fall Time	V_R=5V, 10~90%			0.3	ns
BW	Bandwidth	V_R=5V	2			GHz

ABSOLUTE MAXIMUM RATINGS (T_C=25 ºC)

Symbol	Parameter	Ratings	Unit
Po	Input Optical Power	10	mW
V_{RD}	Reverse Voltage	20	V
I_{FD}	Forward Current	10	mA
T_{opr}	Operating Temperature	-40~+85	ºC
T_{stg}	Storage Temperature	-40~+85	ºC

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MECHANICAL DIMENSION (mm) and PIN ASSIGNMENT



Note: 1. Specifications subject to change without notice.

2. Other PIN assignment is available upon request.

ORDER INFORMATION

Part No.: P D – 5 1 □ □ – □

Code	Wavlength
1	1310 / 1550 nm
3	1310 nm
5	1550 nm

Code	Package
0	Ball Lens Cap
5	Flat Window Cap

Code	Package
Blank	Flat Window Cap
N	Ball Lens Cap

Code	Diameter
0	75 μm

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Revision History

Version	Subject	Release Date
1.0	Initial datasheet	2002/6/1
2.0	Add the indication of photosensitive surface Add the indication of focal plane N-Type ball lens cap is used, because of the phasing out of the original ball lens cap	2009/4/9