

## 1.55 $\mu\text{m}$ 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  $\mu\text{m}$

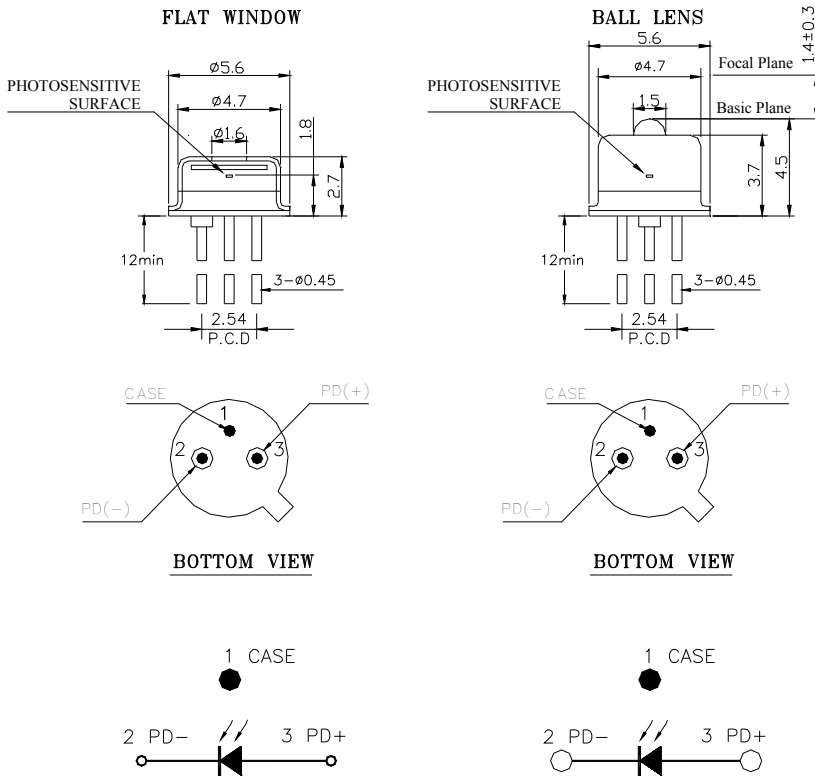
### DESCRIPTION

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 ( $T_c=25^\circ\text{C}$ )						
Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
	Active Area			75		$\mu\text{m}$
	Detection Range		1480	1550	1600	nm
R	Responsivity	$V_R=5\text{V}$ , $\lambda=1550\text{nm}$ $\lambda=1310\text{nm}$	0.8	0.85 -	- 0.005	A/W
$I_{\text{dark}}$	Dark Current	$V_R=5\text{V}$		0.3	0.7	nA
C	Capacitance	$V_R=5\text{V}$		0.7	0.9	pF
$T_r/T_f$	Rise/Fall Time	$V_R=5\text{V}$ , 10~90%			0.3	ns
BW	Bandwidth	$V_R=5\text{V}$	2			GHz

ABSOLUTE MAXIMUM RATINGS ( $T_c=25^\circ\text{C}$ )			
Symbol	Parameter	Ratings	Unit
$P_o$	Input Optical Power	10	mW
$V_{RD}$	Reverse Voltage	20	V
$I_{FD}$	Forward Current	10	mA
$T_{opr}$	Operating Temperature	-40~+85	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-40~+85	$^\circ\text{C}$

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	Wavelength
1	1310 / 1550 nm
3	1310 nm
5	1550 nm

Code	Diameter
0	75 μm

Code	Package
0	Ball Lens Cap
5	Flat Window Cap

Code	Package
Blank	Flat Window Cap
N	Ball Lens Cap

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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