

## 1.3 mm WDM PIN PHOTODIODES

## PD-3100 SERIES

### FEATURES

- 2 High responsivity at 1310 nm
- 2 High attenuation at 1550 nm
- 2 Low dark current
- 2 Quick pulse response
- 2 Hermetically sealed 3-pin metal case
- 2 Active diameter 75  $\mu\text{m}$

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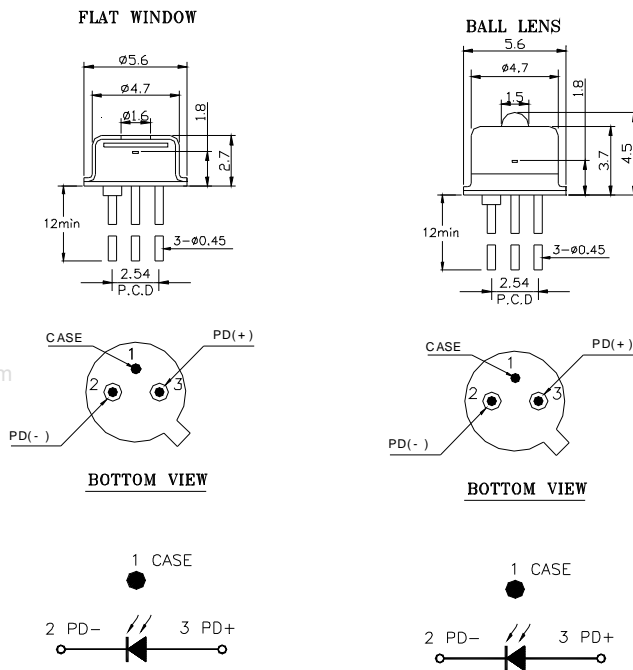
### DESCRIPTION

PD-3100 series InGaAsP Photodiode are suited to receive the light at the wavelength 1310 nm. With high reliability and high isolation between 1310 nm and 1550 nm (at least 30 dB), PD-3100 series are the best choice for 1310 nm / 1550 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 |  | 1260 | 1310 | 1360       | nm            |
| R   | Responsivity    | $V_R=5\text{V}$ , $\lambda=1300\text{nm}$<br>$\lambda=1550\text{nm}$ | 0.8  |      | -<br>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 - 3 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 |