

# InGaAs / InP PIN PD Chip ---TK0925M3A

## 1. Scope

- The specification applies to LD's monitor PD in optical fiber communication.
- Type : TK0925M3A.

## 2. Structure

- InGaAs / InP PIN Chip.
- P Electrode (anode) : Gold.
- N Electrode (cathode) : Gold.

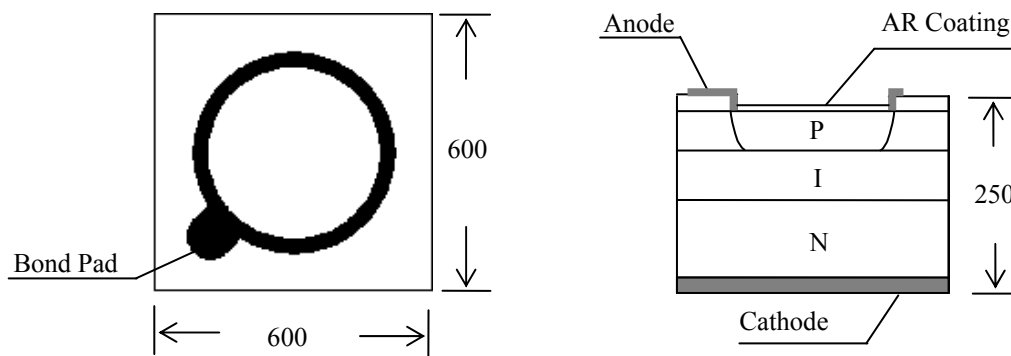
## 3. Size

- Chip size :  $600 \times 600\mu\text{m}$
- Thickness :  $250 \pm 20\mu\text{m}$
- Active area :  $400\mu\text{m}$  (diameter)
- Bond Pad :  $80 \pm 2\mu\text{m}$  (diameter)
- Pattern drawing : per fig. 1

## 4. Electro-Optical Characteristics

Electro-Optical Specifications @  $T = 25^\circ\text{C}$

| Parameter             | Symbol   | Test Condition                         | Min. | Typ. | Max. | Unit             |
|-----------------------|----------|----------------------------------------|------|------|------|------------------|
| Responsivity          | R        | $V_r=5\text{V}, \lambda=1310\text{nm}$ | 0.90 | 0.95 |      | A/W              |
| Responsivity          | R        | $V_r=5\text{V}, \lambda=1550\text{nm}$ | 0.95 | 1.00 |      | A/W              |
| Dark Current          | $I_d$    | $V_r=5\text{V}$                        |      | 0.3  | 5    | nA               |
| Breakdown Voltage     | $V_b$    | $I_r=1\mu\text{A}$                     | 20   |      |      | V                |
| Shunt Resistance      | $R_s$    | $V=10\text{mV}$                        | 40   |      |      | $\text{M}\Omega$ |
| Operating Temperature | $T_{op}$ |                                        | -40  |      | 85   | $^\circ\text{C}$ |
| Storage Temperature   | $T_{st}$ |                                        | -40  |      | 125  | $^\circ\text{C}$ |



Unit :  $\mu\text{m}$

fig. 1

2012.Jun

