

# InGaAs / InP PIN PD Chip ---TK0918M3A

## 1. Scope

- The specification applies to LD's monitor PD in optical fiber communication.
- Type : TK0918M3A.

## 2. Structure

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

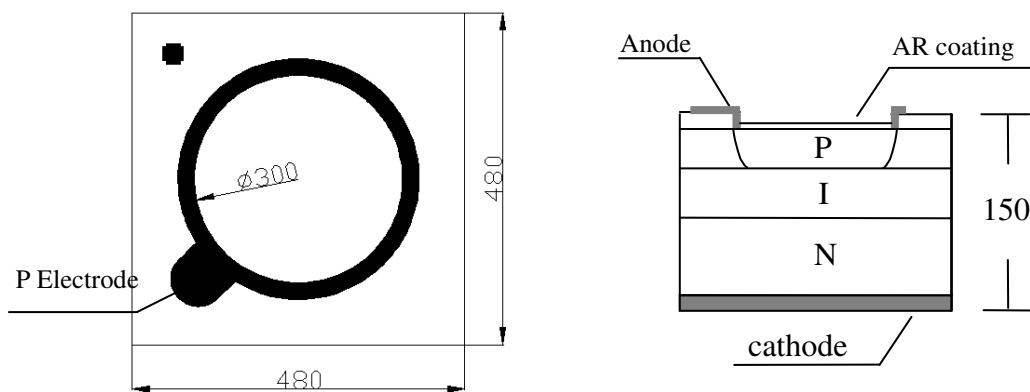
## 3. Size

- Chip size :  $480 \times 480 \pm 25 \mu\text{m}$
- Thickness :  $150 \pm 25 \mu\text{m}$
- Active area :  $300 \pm 2 \mu\text{m}$  (diameter)
- Pattern drawing : per fig. 1

## 4. Electro-Optical Characteristics

Electro-Optical Specifications @  $T_a = 23^\circ\text{C}$

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Responsivity	R	$V_r=5V, \lambda=1300\text{nm}$	0.90	0.95		A/W
Responsivity	R	$V_r=5V, \lambda=1550\text{nm}$	0.95	1.00		A/W
Dark Current	$I_d$	$V_r=10V$		0.2	1	nA
Capacitance	C	$V_r=5V, f=1\text{MHz}$		6	7	pF
Forward Voltage	$V_f$	$I=3\text{mA}$		0.55	0.8	V
Breakdown Voltage	$V_b$	$I_r=1\mu\text{A}$	20			V
Shunt Resistance	$R_s$	$V=10\text{mV}$	40			MOhm
Operating Temperature	$T_{op}$		-40		100	$^\circ\text{C}$
Storage Temperature	$T_{st}$		-40		125	$^\circ\text{C}$
Electrostatic discharge	ESD	H.B.M	500			V



Unit :  $\mu\text{m}$

fig. 1

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