

InGaAs / InP PIN PD Chip ---TK0910P3F

1. Scope

- The specification applies to 1.25Gbps PIN PD in optical fiber communication.
- Type : TK0910P3F

2. Structure

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

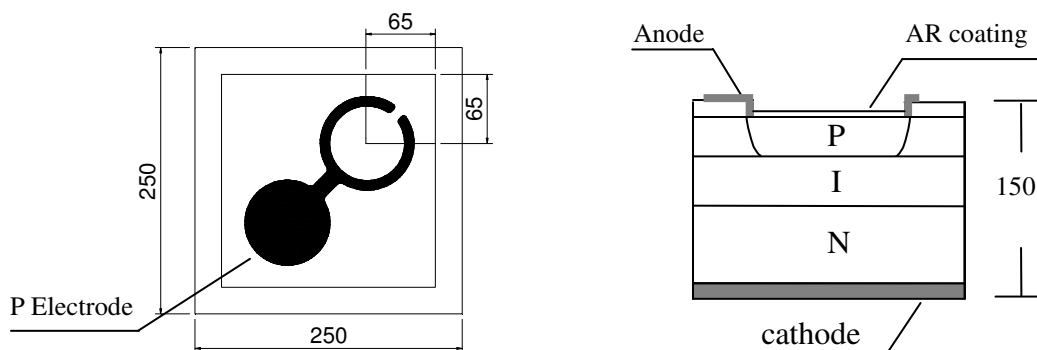
3. Size

- Chip size : $250 \times 250 \pm 25\mu\text{m}$
- Thickness : $150 \pm 25\mu\text{m}$
- Active area : $70 \pm 2\mu\text{m}$ (diameter)
- Pad area : $80 \pm 2\mu\text{m}$ (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	$V_r=5V, f=1\text{MHz}$		0.50	0.60	pF
Forward Voltage	V_f	$I=3\text{mA}$		0.6	0.8	V
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		100	$^\circ\text{C}$
Storage Temperature	T_{st}		-40		125	$^\circ\text{C}$



Unit : μm

fig. 1

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