

Si Photo-diode Chip—TK0021PDN

1. Scope

- The specification applies to PIN silicon photo-diode chips.
- Type : TK0021PDN.

2. Structure

- PIN planar type.
- Electrode topside (anode) : Aluminum.
- Electrode backside (cathode) : Gold .

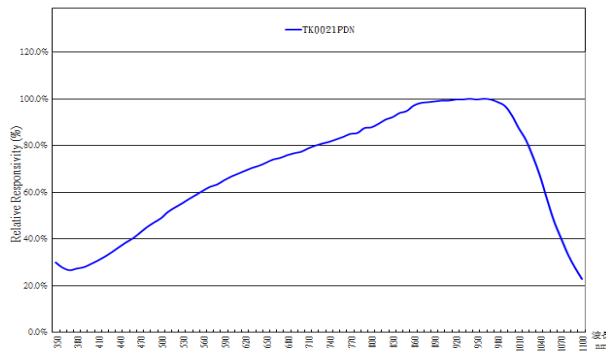
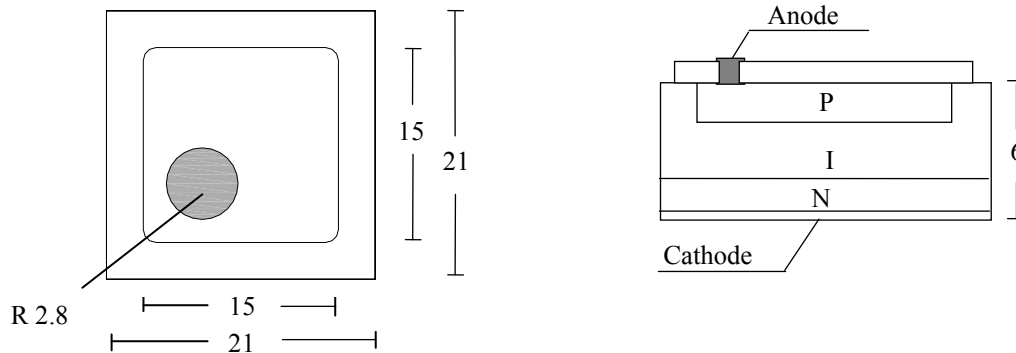
3. Size

- Chip size : 21mil × 21mil ± 1.5mil (0.525mm × 0.525mm ± 0.038mm)
- Thickness : 6mil ± 1mil (0.150mm ± 0.025mm)
- Active area : 15mil × 15mil ± 0.5mil (0.380mm × 0.380mm ± 0.013mm)
- Pad size : diameter 2.8mil ± 0.4mil (0.070mm ± 0.01mm)
- Pattern drawing : per fig. 1

4. Electro-Optical Characteristics

($T_a = +25\text{ }^\circ\text{C}$)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit.
Forward Voltage	V_F	$I_F=10\text{mA}$, $H=0$	0.5		1.3	V
Reverse Breakdown Voltage	V_{BR}	$I_R=100\mu\text{A}$, $H=0$	35			V
Reverse Dark Current	I_D	$V_R=10\text{V}$, $H=0$		2	10	nA
Light Current	I_L	$V_R=5\text{V}$, $1\text{mw}/\text{cm}^2@940\text{nm}$		4.2		μA
Peak Sensing Wavelength	λ_p			940		nm
Junction Capacitance	C_J	$V_R=5\text{V}$, $H=0$, $F=1\text{ MHz}$		2		pF



Unit : mil

fig. 1

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