

Photo Transistor --ORT-PT3121

1. Scope:

- This specification applies to NPN Photo Transistor.

2. Structure:

- Top Side : aluminium alloy
- Bottom Side : silver alloy
- Passivation : Silicon Nitride

3. Size:

- Die Size : $510\mu\text{m}\times 510\mu\text{m}\pm 30\mu\text{m}$
- Thickness : $280\mu\text{m}\pm 30\mu\text{m}$
- Pad Size :
- Base : $60\mu\text{m}\times 60\mu\text{m}\pm 20\mu\text{m}$
- Emitter : $\Phi 160\mu\text{m}\pm 20\mu\text{m}$
- Active Area : $381\mu\text{m}\times 381\mu\text{m}\pm 20\mu\text{m}$
- Pattern Drawing: fig.1.

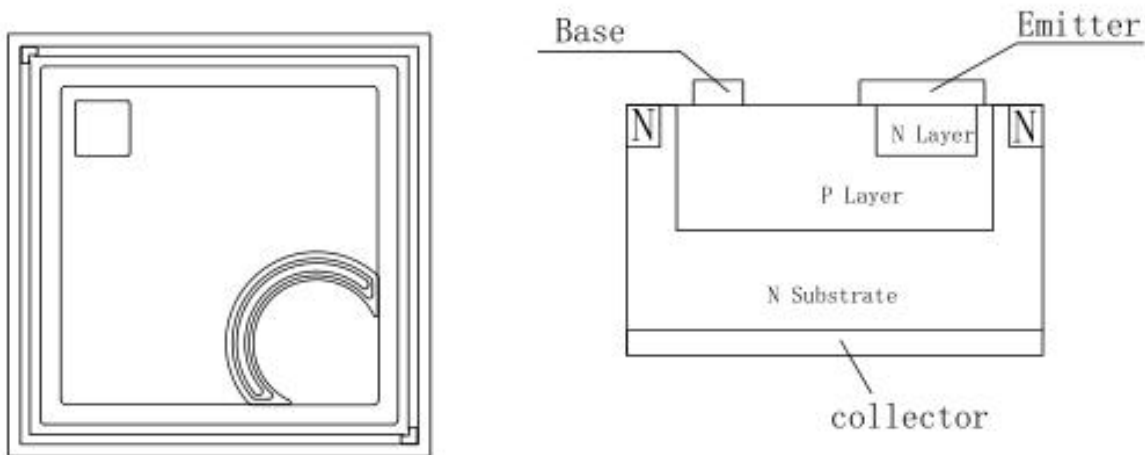


fig.1

4. Electro-Optical Characteristics:

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

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
C-E Leakage Current	I_{CEO}	$V_{CE}=20\text{V}$ $H=0\text{mw}/\text{cm}^2$			100	nA
C-E Saturation Voltage	V_{CES}	$I_C=5\text{mA}$, $I_B=1\text{mA}$			250	mV
C-E Voltage	BV_{CEO}	$I_{CE}=500\mu\text{A}$	30			V
E-C Voltage	BV_{ECO}	$I_{EC}=100\mu\text{A}$	4			V
DC Current Gain	h_{FE}	$V_{CE}=10\text{V}$, $I_C=1\text{mA}$	300			-

***Note** : BV_{ECO} : h_{FE} : 1000~ (BV_{ECO} = Min. 3V)



5. Packing :

- Packing: Sheet Type

6. Application Notes:

- All data are measured by Orient' s tester on bare chips within 98% of the nominal value.