

# Photo Transistor --ORT-PT2448H1

## 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 :  $1220\mu\text{m}\times 610\mu\text{m}\pm 30\mu\text{m}$
- Thickness :  $220\mu\text{m}\pm 30\mu\text{m}$
- Pad Size :
- Base :  $70\mu\text{m}\times 70\mu\text{m}\pm 20\mu\text{m}$
- Emitter :  $155\mu\text{m}\times 155\mu\text{m}\pm 20\mu\text{m}$
- Active Area :  $450\mu\text{m}\times 450\mu\text{m}\pm 20\mu\text{m}$
- Pattern Drawing: fig.1.

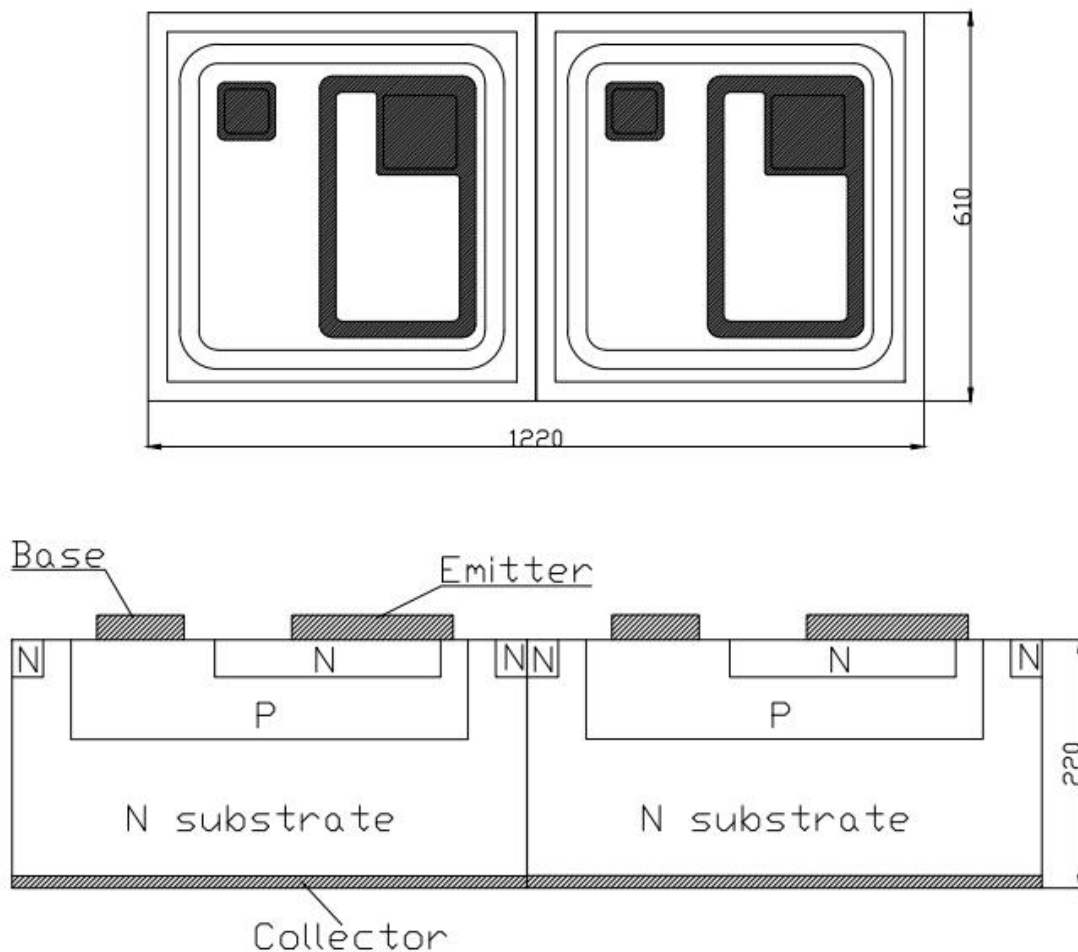


fig.1



#### 4. Electro-Optical Characteristics:

(Ta=+25°C)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
C-E Leakage Current	$I_{CEO}$	$V_{CE}=20V$ $H=0mw/cm^2$			100	nA
C-E Saturation Voltage	$V_{CES}$	$I_C=5mA$ , $I_B=1mA$			250	mV
C-E Voltage	$BV_{CEO}$	$I_{CE}=500\mu A$	70			V
E-C Voltage	$BV_{ECO}$	$I_{EC}=50\mu A$	6			V
DC Current Gain	$h_{FE}$	$V_{CE}=10V$ , $I_C=1mA$	300			-

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

#### 5. $h_{FE}$ Classification:

##### T24483 series(1:1.3)

Classification	T2448-3A	T2448-3B	T2448-3C	T2448-3D	T2448-3E
$h_{FE}$	600~780	660~860	720~940	780~1020	840~1100

Classification	T2448-3F	T2448-3G	T2448-3H	T2448-3I	T2448-3J
$h_{FE}$	900~1180	960~1260	1020~1340	1080~1420	1140~1500

Classification	T2448-3K	T2448-3L	T2448-3M	T2448-3N
$h_{FE}$	1200~1580	1500~2000	2000~2600	2400~3000

##### T24485 series(1:1.5)

Classification	T2448-5A	T2448-5B	T2448-5C	T2448-5D	T2448-5E
$h_{FE}$	600-900	700-1050	800-1300	900-1400	1100-1700

Classification	T2448-5F	T2448-5G	T2448-5H
$h_{FE}$	1300-2000	1500-2300	2000-3000

##### T24487 series(1:1.7)

Classification	T2448-7A	T2448-7B	T2448-7C	T2448-7D	T2448-7E
$h_{FE}$	600~1020	680~1160	760-1300	840-1440	920-1580

Classification	T2448-7F	T2448-7G	T2448-7H
$h_{FE}$	1000-1700	1200-2000	1800-3000

##### T2448A series(1:2)

Classification	T2448-AA	T2448-AB	T2448-AC	T2448-AD	T2448-AE	T2448-AO
$h_{FE}$	600~1200	800~1600	1000~2000	1200~2400	2000~3000	600~3000

#### 6. Packing :

- Packing: Sheet Type

#### 7. Application Notes:

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

