## SIT612

## Photo Interrupter

## Dimensions

The SIT612 is a photointerrupter highperformance standard type, combines high-output GaAs IRED with high sensitive phototransistor

## Features

- PCB direct mount type
- GAP:3.0mm
- With the installation positioning boss
- Compact/ Low cost
- RoHS Compliance



## Applications

- Printer
- VTR
- Cassette mecha
- Car stereo

General Tolerance $( \pm 0.2)$

## Maximum Ratings



| Item |  | Symbol | Rating | Unit |
| :---: | :---: | :---: | :---: | :---: |
| Input | Power dissipation | $\mathrm{P}_{\mathrm{D}}$ | 75 | mW |
|  | Forward current | $\mathrm{I}_{\mathrm{F}}$ | 50 | mA |
|  | Reverse voltage | $\mathrm{V}_{\mathrm{R}}$ | 5 | V |
| Output | Collector power dissipation | $\mathrm{P}_{\mathrm{C}}$ | 75 | mW |
|  | Collector current | $\mathrm{I}_{\mathrm{c}}$ | 20 | mA |
|  | Collector-Emiter voltage | $\mathrm{V}_{\text {CEO }}$ | 30 | V |
|  | Emiter-Collector voltage | $\mathrm{V}_{\text {ECO }}$ | 5 | V |
| Operating temperature** |  | Topr. | $-20 \sim+85$ | ${ }^{\circ} \mathrm{C}$ |
| Storage temperature *1 |  | Tstg. | $-30 \sim+85$ | ${ }^{\circ} \mathrm{C}$ |
| Soldering temperature *2 |  | Tsol. | 260 | ${ }^{\circ} \mathrm{C}$ |

*1. No icebond or dew
*2. The soldering should be 1.2 mm away from bottom of the holder $\mathrm{t}=$ within 3s

[^0]Photo Interrupter

## SIT612

Elector-Optical Characteristics
( $\mathrm{Ta}=25^{\circ} \mathrm{C}$ )

| Item |  | Symbol | Conditions | Min. | Typ. | Max. | Unit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Input | Forward voltage | $\mathrm{V}_{\mathrm{F}}$ | $\mathrm{I}_{\mathrm{F}}=20 \mathrm{~mA}$ | - | 1.2 | 1.4 | V |
|  | Reverse current | $\mathrm{I}_{\text {R }}$ | $\mathrm{V}_{\mathrm{R}}=5 \mathrm{~V}$ | - | - | 10 | $\mu \mathrm{A}$ |
|  | Peak wavelength | $\lambda_{P}$ | $\mathrm{I}_{\mathrm{F}}=20 \mathrm{~mA}$ | - | 940 | - | nm |
| Output | Dark current | $\mathrm{I}_{\text {CEO }}$ | $\mathrm{V}_{\mathrm{CE}}=10 \mathrm{~V} \quad \mathrm{E}_{\mathrm{V}}=0 \mathrm{~lx}$ | - | 3 | 100 | nA |
|  | Peak SENS.Wavelength | $\lambda_{P}$ | - | - | 880 | - | nm |
| Transfer characteristics | Light current | $\mathrm{I}_{\text {ceL }}$ | $\mathrm{I}_{\mathrm{F}}=20 \mathrm{~mA} \mathrm{~V}_{\text {CE }}=5 \mathrm{~V}$ Non-Shading | 0.2 | - | 4.5 | mA |
|  | Leak current | $\mathrm{I}_{\text {CEOD }}$ | $\mathrm{I}_{\mathrm{F}}=20 \mathrm{~mA} \mathrm{~V}_{\text {CE }}=5 \mathrm{~V}$ Shading | - | 0.5 | 10 | $\mu \mathrm{A}$ |
|  | C-E sat.voltage | $\mathrm{V}_{\mathrm{CE} \text { (sat) }}$ | $\mathrm{I}_{\mathrm{F}}=20 \mathrm{~mA} \mathrm{I}_{\mathrm{C}}=0.05 \mathrm{~mA}$ | - | 0.15 | 0.4 | V |
|  | Rise time | tr | $\mathrm{I}_{\mathrm{C}}=100 \mu \mathrm{~A} \mathrm{~V}_{\mathrm{CC}}=5 \mathrm{~V} \mathrm{R}_{\mathrm{L}}=1 \mathrm{~K} \Omega$ | - | 50 | - | $\mu \mathrm{s}$ |
|  | Fall time | tf |  | - | 50 | - | $\mu \mathrm{s}$ |



Light current Vs.


Forward current Vs.


Relative light current Vs.


Light current Vs.
Forward current



[^1]
## SIT612



Photo transistors relative sensitivity Vs.


Method of measure possition detection ※ 2 characteristic
(X)
(Y)

$-\infty+$

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## Packing Specification

1.Place the specified(Max100pcs) number of products in a stick,(see picture 1)
2.6 sets of sticks are tied by rubber band, 36 sets of sticks are put into a plastic bag(200*580)(see picture
3. Put 10 plastic bags (filled with 36 sticks of products) into \#2.5 Box(460*340*310)
4. Packing Slit is put on the surface of Outer-box(see picture 3)


Picture 2


[^2] would you please refer to the latest specifications.

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