

RB-See-190

Photo Interrupter OS25B10

Introduction

The OS25B10 is a high performance standard type photo interrupter, which combines high output GaAIAs infrared light emitting diode and high sensitive phototransistor.



Features

- 10mm space for interruption
- Easy to mount on PCB
- High-speed response
- Widely applicable

Application Ideas

- Tape-end sensors
- Timing sensors
- Edge sensors
- copiers

Cautions

The warnings and wrong operations possible cause dangerous.

Schematic

It is the schematic, the circuit about Eagle resource like .pdf should linked here in order to avoid memory exhausted.

Specification

Maximum Ratings (Ta=25°C)

| Item | Symbol | Rating | Unit | |
|-----------------------|-----------------------------|---------|------|----|
| Input | Power Dissipation | PD | 80 | mW |
| | Reverse Voltage | VR | 5 | V |
| | Forward Current | IF | 50 | mA |
| | Pulse Forward current * 1 | IFP | 1 | A |
| Output | Collector Power Dissipation | Pc | 100 | mW |
| | Collector Current | Ic | 20 | mA |
| | C-E Voltage | VCEO | 30 | V |
| | E-C Voltage | VECO | 5 | V |
| Operating Temperature | Topr | -25~+65 | °C | |

| | | | |
|--------------------------|------|---------|----|
| Storage Temperature | Tstg | -25~+85 | °C |
| Soldering Temperature *2 | Tsol | 240 | °C |

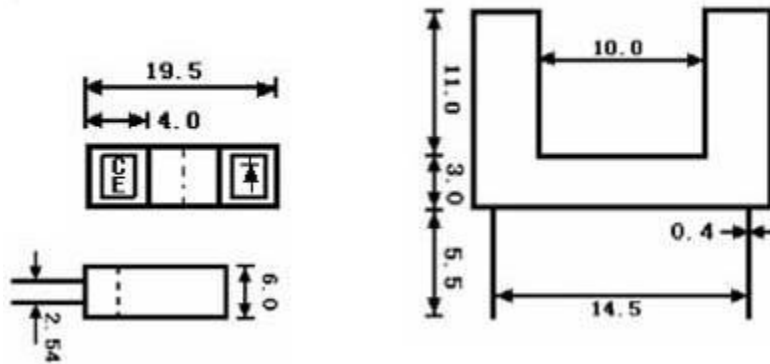
Electro-optical Characteristics (Ta=25°C)

| Item | Symbol | Conditions | Min | Typ | Max | Unit |
|------------------|------------------------|------------|--------------------------|-----|-----|------|
| Input | Forward Voltage | VF | | 1.2 | 1.6 | V |
| | Reverse Current | IR | | | 10 | μA |
| | Capacitance | Ct | f=1MHZ | 25 | | pF |
| | Peak Wavelength | λP | | 940 | | nm |
| Output | Collector Dark Current | ICEO | VCE=10V | 1 | 100 | nA |
| | Light Current | IL | VCE=5V,IF=20mA | 1 | 2.5 | mA |
| | C-E Saturation Voltage | VCE(sat) | IF=20mA,Ic=0.5mA | | 0.2 | 0.4 |
| Switching Speeds | Rise Time | tr | Vcc=10V, Ic=5mA, RL=100Ω | 5 | | μsec |
| | Fall Time | tf | | 5 | | μsec |

Pin definition and Rating

Mechanic Dimensions

Dimensions (Unit: mm)



Usage

Hardware Installation

Programming

Includes important code snippet. Demo code like :

Demo code

```
{
```

```
}
```