

Description

The KIT5016A photo interrupter combines high output GaAs IRED with high sensitive phototransistor.

Features

- PWB direct mount type
- GAP : 5.0mm
- RoHS compliant

Applications

- CD changers
- Reel rotation detection
- VTR
- Amusement machines

Absolute Maximum Ratings (T_a=25°C, Unless otherwise specified)

| Characteristic | | Symbol | Ratings | Unit |
|---|-------------------------------------|---------------------------|-----------|---------|
| Input | Power Dissipation | P _D | 100 | mW |
| | Forward Current | I _F | 60 | mA |
| | Reverse Voltage | V _R | 5 | V |
| | Pulse Forward Current ^{*1} | I _{FP} | 1 | A |
| Output | Collector Dissipation | P _C | 100 | mW |
| | Collector Current | I _C | 40 | mA |
| | Collector-Emitter Voltage | V _{CEO} | 30 | V |
| | Emitter-Collector Voltage | V _{ECO} | 5 | V |
| Rate of Decrease of Temp. for Forward Current ^{*2} | | $\Delta I_F / \Delta T_a$ | -0.80 | mA / °C |
| Rate of Decrease of Temp. for Collect Dissipation ^{*2} | | $\Delta P_C / \Delta T_a$ | -1.33 | mW / °C |
| Operating Temperature ^{*3} | | T _{opr} | -20 ~ +85 | °C |
| Storage Temperature ^{*3} | | T _{stg} | -30 ~ +85 | °C |
| Soldering Temperature ^{*4} | | T _{sol} | 260 | °C |

*1 : Pulse width (tw) ≤ 100μs, Period (T) = 10msec.

*2 : T_a ≥ 25 °C ~ Topr(max).

*3 : No icebond or dew.

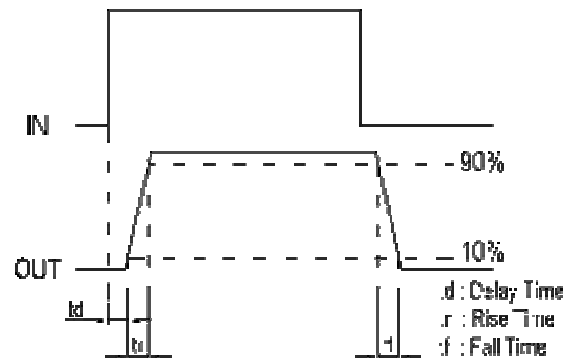
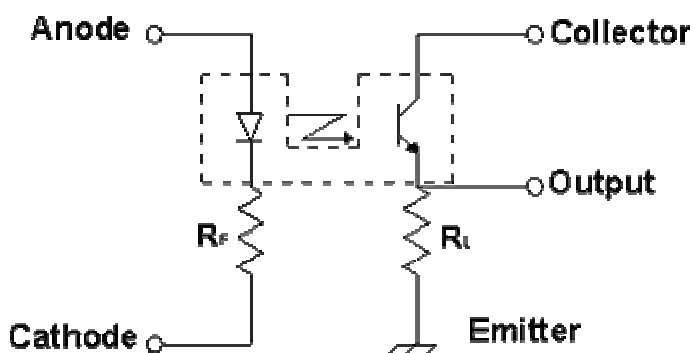
*4 : The soldering should be 1mm away from bottom of the holder t = within 5sec.

The contents of this data sheet are subject to change without advance notice for the purpose of improvement.
When using this product, would you please refer to the latest specifications.

Electrical Characteristics (T_a=25°C)

| Characteristic | | Symbol | Test Condition | Min. | Typ. | Max. | Unit |
|--------------------------|------------------------|----------------------|--|------|------|------|------|
| Input | Forward Voltage | V _F | I _F = 20mA | - | 1.2 | 1.4 | V |
| | Reverse Current | I _R | V _R = 5V | - | - | 10 | μA |
| | Peak Wavelength | λ _p | I _F = 20mA | - | 940 | - | nm |
| Output | Dark Current | I _{CEO} | V _{CE} = 10V, 0 Lux | - | 1 | 100 | nA |
| | Peak Wavelength | λ _p | | - | 880 | - | nm |
| Transfer Characteristics | Collector Current | I _C | I _F =20mA, V _{CE} =5V, Non-shading | 1.0 | - | 5.0 | mA |
| | Leak Current | I _{CEOD} | I _F = 20mA, V _{CE} = 5V, Shading | - | 0.5 | 10 | μA |
| | C-E Saturation Voltage | V _{CE(sat)} | I _F = 20mA, I _C = 0.1mA | - | 0.15 | 0.4 | V |
| Response Time | Rise Time | t _r | V _{CC} =5V, I _C =2mA, R _L =100Ω | - | 4 | - | μs |
| | Fall Time | t _f | | - | 1.2 | 1.4 | V |

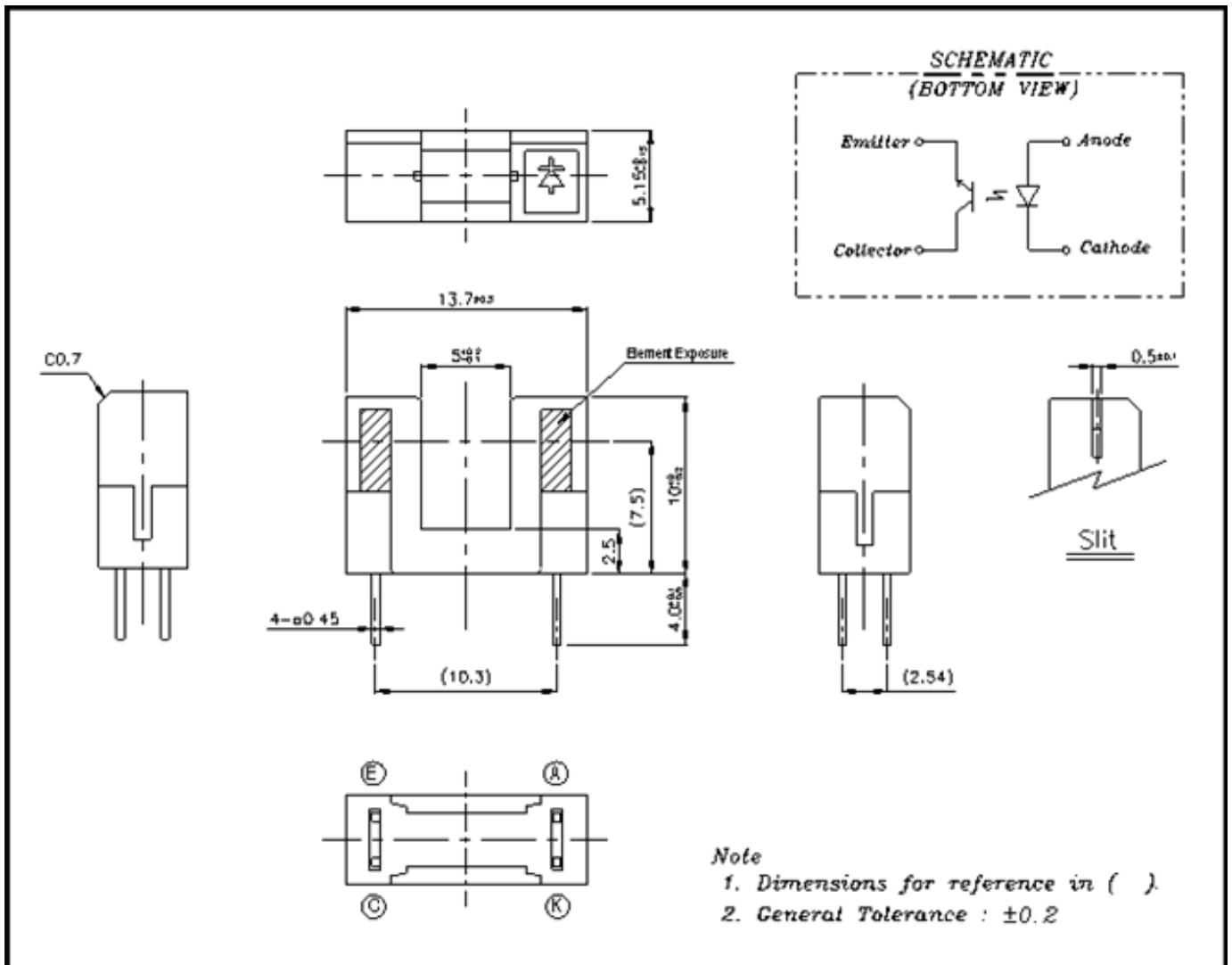
* Circuit for Measuring Response Time



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Package Outline Dimensions



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