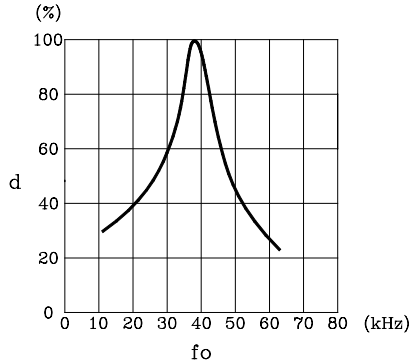


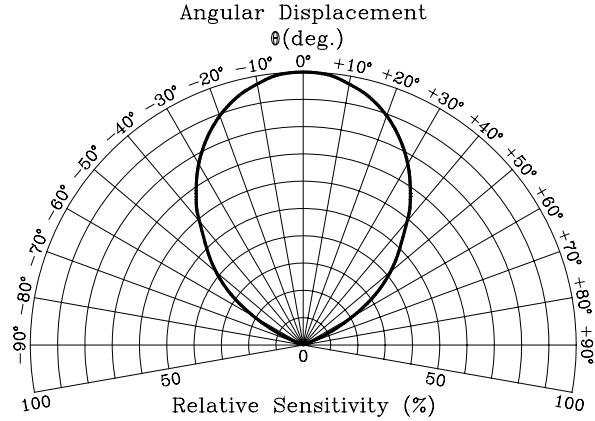
SMD Micro Embedded Infrared Receiver Module

Module No.: PIC-9002ATE

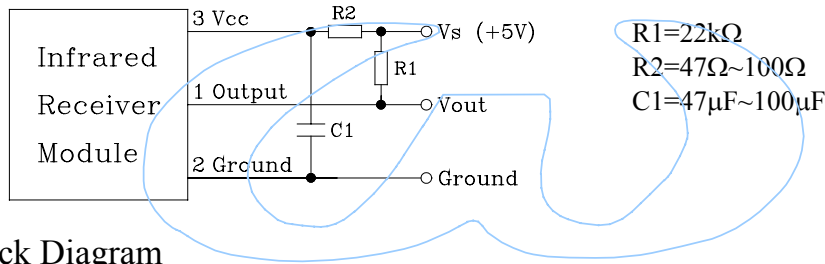
Relative Reception Distance vs Transmitter Carrier Frequency



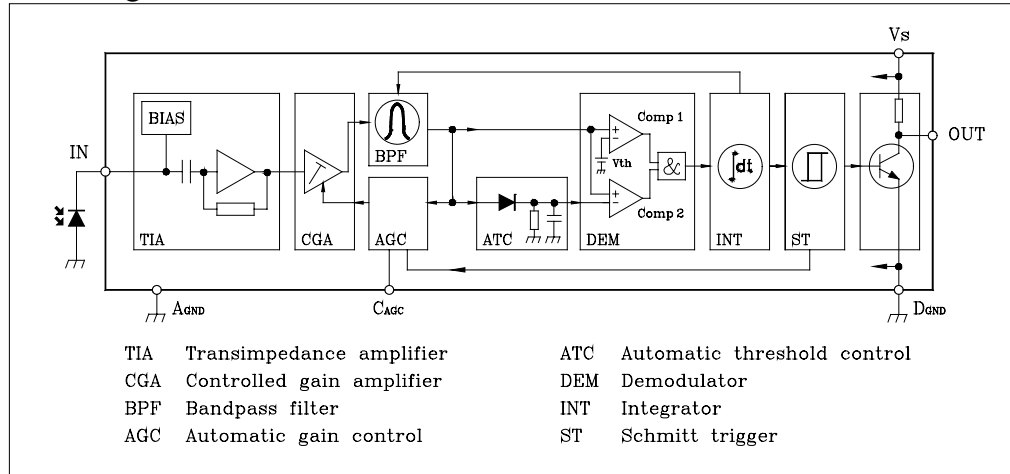
Sensitivity Diagram



In case of noisy power supply, please serially insert 100Ω resistor and about 47μF electrolytic capacitor in Vcc line and ground as follows:-



Block Diagram



Standard Inspection

Among electrical characteristics, total quantity will be inspected as below:-

- ⊙ Distance between emitter and detector
- ⊙ Current consumption
- ⊙ H level output voltage
- ⊙ L level output voltage

SMD Micro Embedded Infrared Receiver Module

Module No.: PIC-9002ATE

Testing Method

Distance between emitter and detector specifies maximum distance that output waveform satisfies the standard (FIG-3) under the conditions below against the standard transmitter.

- Measuring place
Indoor without extreme reflection of light.
- Ambient light source
Detecting surface illumination is $200 \pm 5 \text{Lux}$ under ordinary white fluorescence lamp of no high frequency lightning.
- Standard transmitter
Transmitter wave indicated in FIG-2 of standard transmitter is arranged to satisfy $V_o \geq 50 \text{mVp-p}$ under the measuring circuit specified in FIG-3

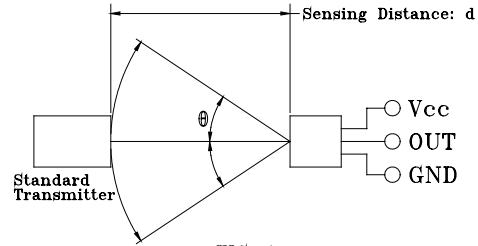


FIG-1

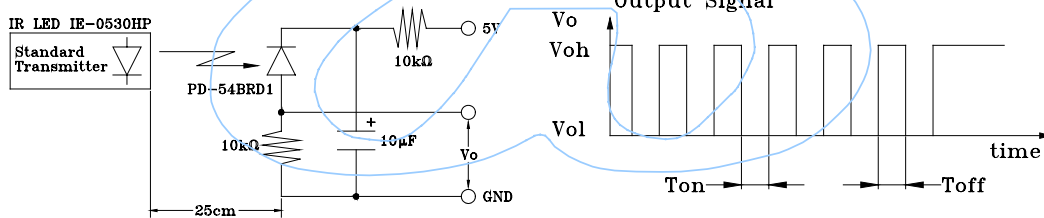
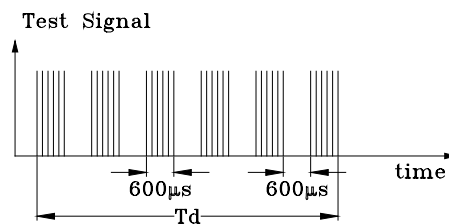
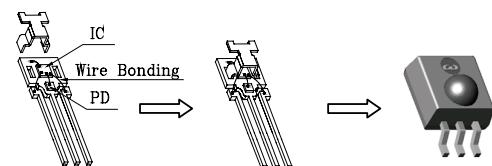


FIG-3 Power Output Measurement Circuit

FIG-2

Embedded Design

This design (Fig-4) is to install a metal case on the carrier lead frame to cover the semiconductor components, in order to shield it electromagnetically within the epoxy resin encapsulation.



Die Bonding Embedded Cover Protection After Encapsulation

FIG-4 Embedded Design

Precautions for Use

- Store and use where there is no force causing transformation or change in quality.
- Store and use where there is no corrosive gas or sea (salt) breeze.
- Store and use where there is no extreme humidity.
- Solder the lead pin within the condition of ratings. After soldering, do not add exterior force.
- Do not wash this device. Wipe the stains of diode side with a soft cloth. You can use the solvent, ethyl alcohol, or methyl alcohol only.
- To prevent static electricity damage to the pre-amp, make sure that the human body, the soldering iron are connected to ground before using.