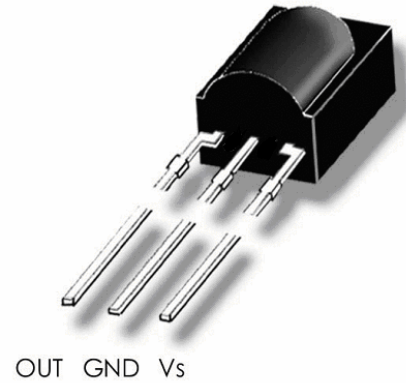


Photo Module for PCM Remote Control Systems

Description

The AT156B is miniaturized receiver for infrared remote control systems. PIN diode and preamplifier are assembled on lead frame, the epoxy package is designed as IR filter.

The demodulated output signal can directly be decoded by a microprocessor. The main benefit is the reliable function even in disturbed ambient and the protection against uncontrolled output pulses.



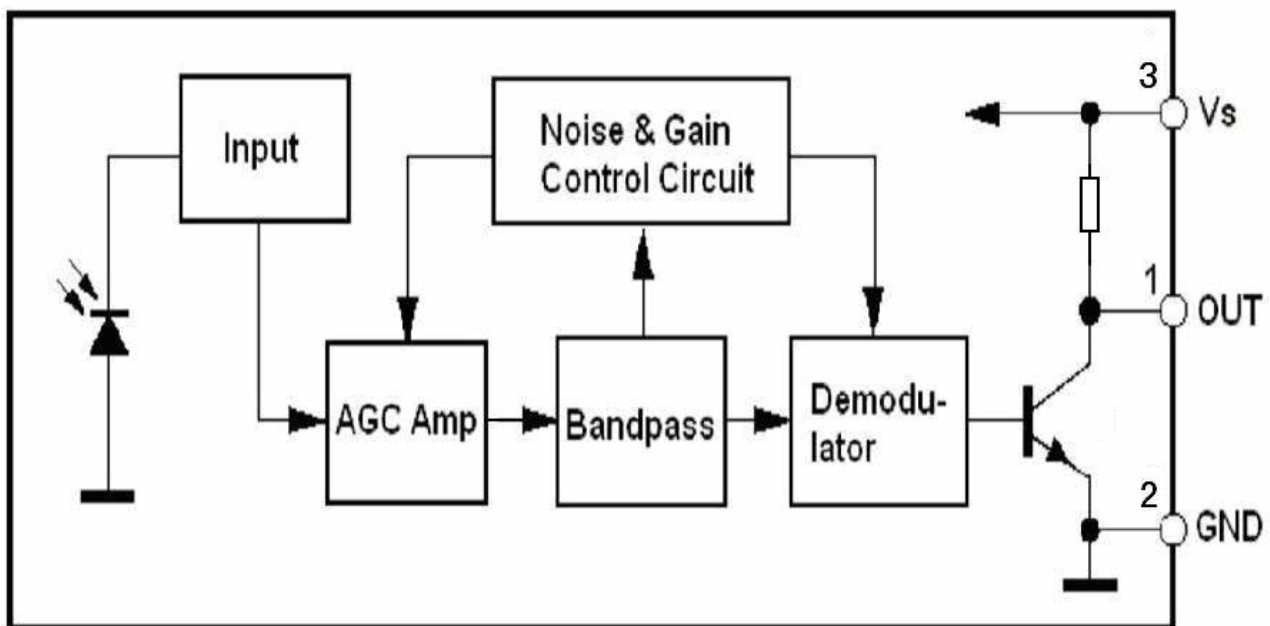
Features

- Photo detector and Preamplifier in one package
- Internal filter for PCM frequency
- TTL and CMOS compatibility
- Output active low
- Low power consumption
- Suitable burst length ≥ 10 cycles/burst

Special Features

- Enhanced immunity against all kinds of disturbance light
- No occurrence of disturbance pulses at the output

Block Diagram



Absolute Maximum Ratings

Tamb = 25

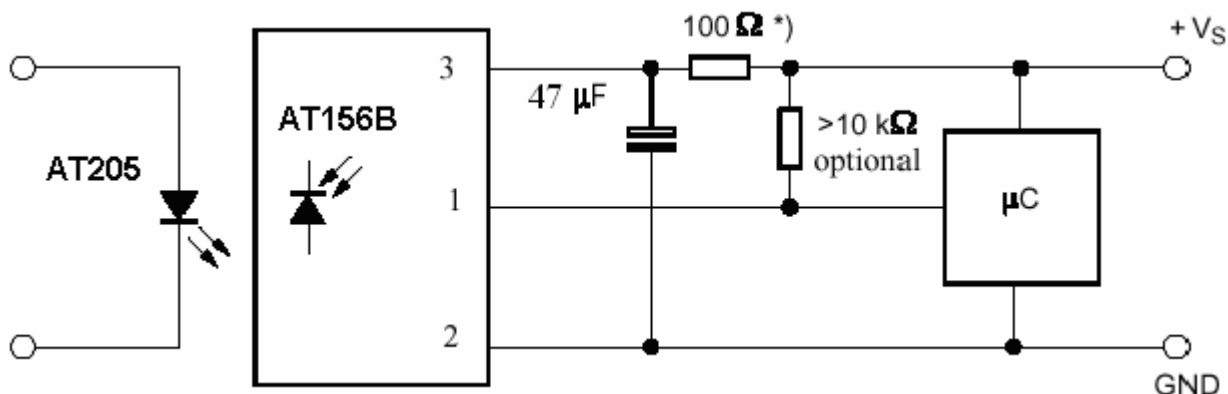
| Parameter | Test Conditions | Symbol | Value | Unit |
|-----------------------------|-----------------|--------|------------|------|
| Supply Voltage | (Pin 3) | Vs | 6.0 | V |
| Supply Current | (Pin 3) | Is | 5 | mA |
| Output Voltage | (Pin 1) | Vo | 6.0 | V |
| Storage Temperature Range | | Tstg | -30...+105 | |
| Operating Temperature Range | | Tamb | -25...+85 | |
| Power Consumption | (Tamb 85) | ptot | 50 | mW |
| Soldering Temperature | t 5s | Tsd | 260 | |

Basic Characteristics

Tamb = 25

| Parameter | Test Conditions | Symbol | Min | Typ | Max | Unit |
|---------------------------|-------------------------------------|--------|-----|-----|-----|------|
| Supply Current (Pin3) | Vs = 5V, Ev = 0 | ISD | 0.7 | 1.1 | 1.4 | mA |
| Supply Voltage (Pin3) | | Vs | 4.5 | 5 | 5.5 | V |
| Transmission Distance | IR diode AT205, IF = 400 mA | d | 20 | | | m |
| Output Voltage Low (Pin1) | IosL = 2 mA, f = fo, tp/T = 0.4 | VosL | | | 250 | mV |
| Carrier frequency | | fo | | 56 | | kHz |
| Peak Wavelength | | λ | | 940 | | nm |
| Directivity | Angle of half transmission distance | φ1/2 | | ±45 | | deg |

Application Circuit



*) recommended to suppress power supply disturbance

Package Outline

Dimensions in mm:

