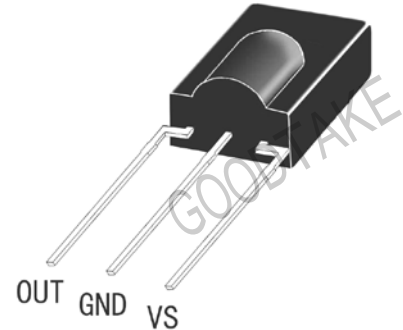


Photo Module for PCM Remote Control Systems

Description

The HM4225CM is a miniaturized receiver for infrared remote control systems. A PIN diode and preamplifier are assembled on a lead frame, and the epoxy package is designed as an IR filter.

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



Features

- TTL and CMOS compatibility
- Output active low
- Low power consumption
- Small size package
- Wide supply voltage
- Lead-Free component in accordance with RoHS directives

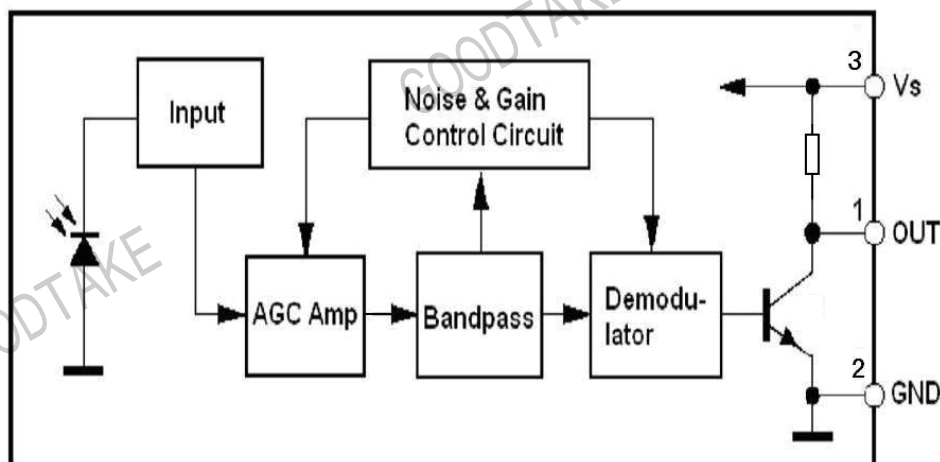
Special Features

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

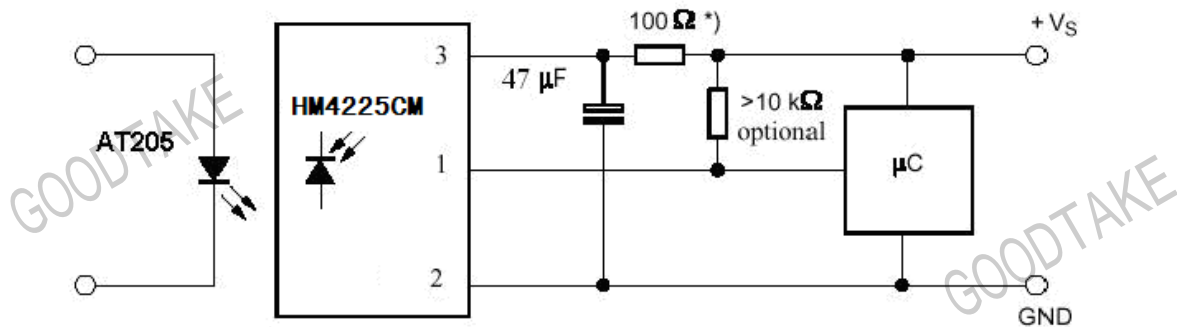
Applications

Stereo glasses

Block Diagram



Application Circuit



*) recommended to suppress power supply disturbance

Absolute Maximum Ratings

Tamb = 25 °C

Parameter	Test Conditions	Symbol	Value	Unit
Supply Voltage	Vs	Vs	0---6.0	V
Supply Current	Vs	Is	5	mA
Output Voltage	OUT	Vo	0---6.0	V
Output Current	OUT	Io	5	mA
Storage Temperature Range		Tstg	-30---+85	°C
Operating Temperature Range		Tamb	-25---+85	°C
Power Consumption	(Tamb ≤85°C)	Ptot	50	mW
Soldering Temperature	t≤5s 1mm from case	Tsd	260	°C

Basic Characteristics

Tamb = 25 °C

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Supply Voltage (Vs)	Recommended operating	Vs	2.7		5.5	V
Supply Current (Vs)	Vs = 5V	Is		0.3		mA
Transmission Distance	IR diode AT205,IF=0.4A	d		20		m
Output Voltage High	Vs = 5V Cycle 1.2mS , 50% duty	VOSH	45			V
Output Voltage Low		VOSL			250	mV
Level Output Pulse Width	Burst Wave= 600µs , Cycle 1.2mS , 50% duty	TWH	400		800	µs
Level Output Pulse Width		TWL	400		800	µs
Carrier frequency		fo		25		kHz
Peak Wavelength		λ		940		nm
Directivity	Angle of half transmission distance	θ 1/2		±45		deg

Package Outline

Dimensions in mm: tolerance ± 0.3 mm

