IR Receiver Modules for 3D Signals

Description

The SDR4225S is miniaturized SMD-IR 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

- TTL and CMOS compatibility
- Output active low
- Low power consumption
- Small size package
- Wide supply voltage

Special Features

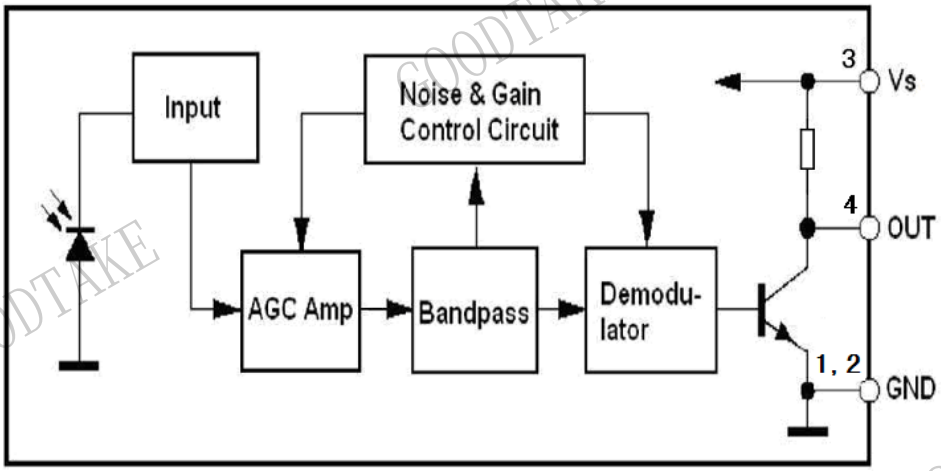
- Enhanced immunity against all kinds of disturbance light
- No occurrence of disturbance pulses at the output

- Lead-Free component in accordance with RoHS directives

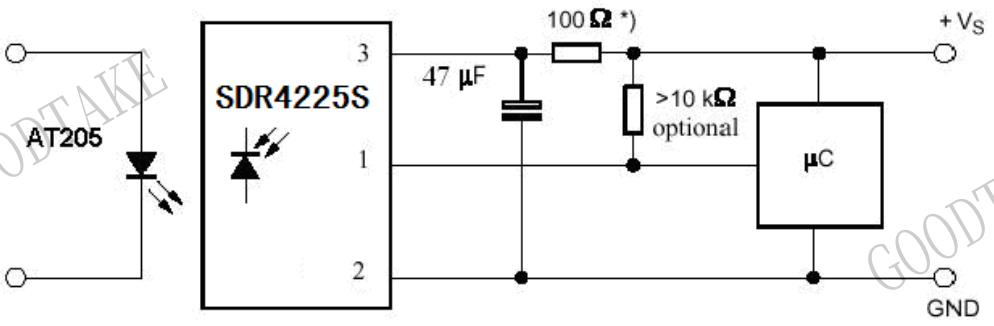
Applications

Stereo glasses

Block Diagram



Application Circuit



*) recommended to suppress power supply disturbance

Absolute Maximum Ratings

Tamb = 25 ℃

Parameter	Test Conditons	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	℃
Operating Temperature Range		Tamb	-25---+85	℃
Power Consumption	(Tamb ≤85℃)	Ptot	50	mW
Soldering Temperature	t≤5s 1mm from case	Tsd	260	℃

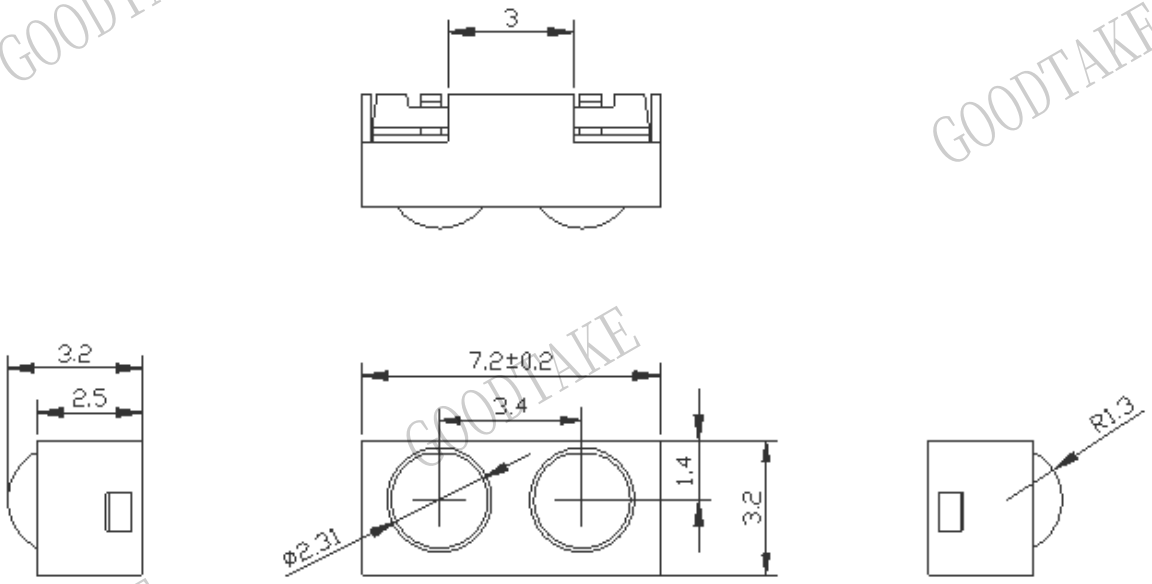
Basic Characteristics

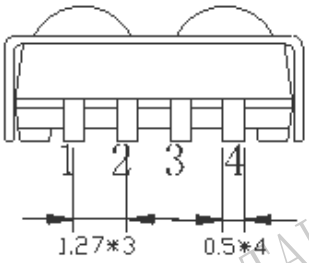
Tamb = 25 ℃

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	4.5			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±0.3mm





1. GND
2. GND
3. VS
4. OUT