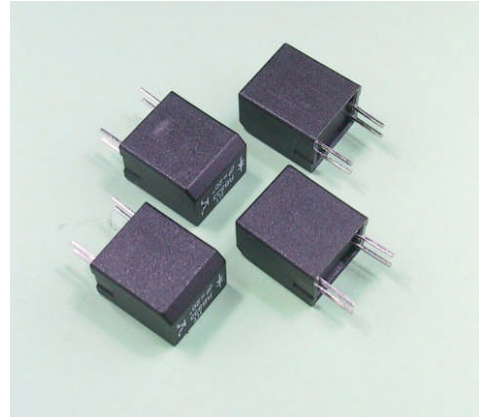


# SENSOR SWITCH

Item.#	RBS3301 Series	Description	TILT SWITCH	Version	V95.0
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## ● APPLICATIONS

1. Tilt Detecting within a 360° radius: Home Appliance  
Tilt Off function
2. Slight Vibration Detecting: Earthquake Alarm



## ● FEATURES

1. Small size & compact space.
2. Housing made of high insulation plastic material, free from electric conduction and rust problem.
3. Using photo transistors to detect signal makes the signal highly reliable and stable.
4. All plastic material subject to industrial purpose meets with UL94V-0 grade; high temperature and fireproof function.
5. Suitable to IC trigger signal.
6. Suitable to horizontal PCB.
7. Tilt Angles: 15°, 20°, 30°, and 45° within a 360° radius.
8. Complete replacement of mercury switch and meet with environmental protection.

## ● PATENTS

1. TAIWAN Patent NO. 181431
  2. CHINA Patent NO. ZL 01 2 60920.X
  3. U.S.A. Patent NO. US 6,800,841 B1
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# SENSOR SWITCH

Item.#	RBS3301 Series	Description	TILT SWITCH	Version	V95.0
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● DIMENSIONS / OPERATION / P.C.B. LAYOUT (Unit: mm, Tolerance:  $\pm 0.25$ mm)

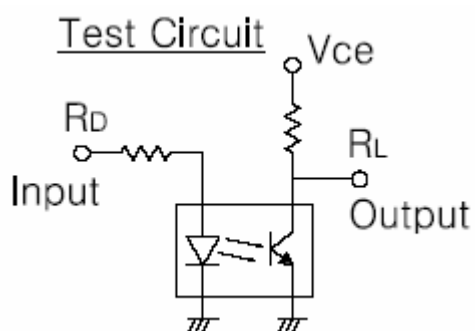
RBS 33 01 00	Tilt Angle (For $\theta=45^\circ \pm 10^\circ$ )	P.C.B. Layout (DIP)/Top View

# SENSOR SWITCH

Item.#	RBS3301 Series	Description	TILT SWITCH	Version	V95.0
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## ● ELECTRICAL CHARACTERISTICS

ITEMS	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS
<b>INPUT</b>						
Forward Voltage	V <sub>f</sub>	-	1.2	1.5	V	I <sub>f</sub> = 20mA
Reverse Current	I <sub>r</sub>	-	-	10	μA	V <sub>r</sub> = 5V
<b>OUTPUT</b>						
Dark Current	I <sub>ceo</sub>	-	-	2	μA	V <sub>ce</sub> = 10V
<b>COUPLED</b>						
Output Current	I <sub>c</sub>	0.5	5.0	-	mA	V <sub>ce</sub> = 5V
Rise Time	T <sub>r</sub>	-	5.0	-	μs	I <sub>c</sub> = 0.8mA    V <sub>cc</sub> = 30V
Fall Time	T <sub>f</sub>	-	5.0	-	μs	R <sub>L</sub> = 1KΩ



## ● MECHANICAL CHARACTERISTICS

1.	Temperature Range	Operating: -25°C to +85°C Storage: -40°C to +85°C
2.	Pull Force of Terminal	500 gf for 1 minute
3.	Operation Life	100,000 Hours
4.	Humidity	95% RH, 40° C for 96 hrs.
5.	Solder ability	After flux 245±5°C for 5±0.5 seconds 95% coverage

## SENSOR SWITCH

Item.#	RBS3301 Series	Description	TILT SWITCH	Version	V95.0
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### ● BILL OF MATERIAL

1.	Housing	Class-Fiber Polyamide, UL 94-0
2.	Base	Class-Fiber Polyamide, UL 94-0
3.	Ball	Stainless steel
4.	Infrared Emitting Diodes	
5.	Silicon Photo Transistors	
6.	Inside part	Copper Alloy, Nickel Plated

### ● PACKAGE

	Part Number	Package	Quantity	Total	Size
1.	RBS330100	PE Bag	200 pcs	200 pcs	12.7 x 17.8 cm
	RBS330101	Inner Box	8 Bags	1,600 pcs	36 x 20 x 9 cm
	RBS330102				
	RBS330103	Carton	3 Boxes	4,800 pcs	36 x 28 x 23 cm
2.	RBS330100	IC tube	48 pcs	48 pcs	52.5 cm
	RBS330101	Inner Box	72 tubes	3,456 pcs	54 x 13 x 13 cm
	RBS330102				
	RBS330103	Carton	4 Boxes	13,824 pcs	55 x 29 x 29 cm

\* Minimum Order Quantity: One Bag / One Box (72 tubes)

### ● NOTE

1. Strongly recommend that using 20mA as input current.
2. For the continued product improvement as one of the company policy, specifications may change or update without notice. The latest information can be obtained through our sales offices. Normally, all products are supplied under our standard conditions.

### ● PRECAUTIONS FOR USE

1. The product is used mainly in electronic devices such as automotive devices, visual devices, home electrical appliances, information devices and communication settings. If the products is intended to be used for other endurance equipments requiring higher safety and reliability
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## SENSOR SWITCH

Item.#	RBS3301 Series	Description	TILT SWITCH	Version	V95.0
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such as life support system, space and aviations devices, disaster and safety system, it's necessary to make verification of conformity or contact us for the details before using.

2. Don't try to clean the switch with a solvent or similar substance after the soldering process.
  3. The switch might be damaged if using the water-soluble flux.
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