



## SENSOR SWITCH

Item.#	VBS01 Series	Description	VIBRATION SWITCH	Version	V96.0
Page	1 of 4		Date	Sep. 30, 2007	

### ● APPLICATIONS

1. Two Axis Vibration Detecting:  
Toys, Sporting Shoes



### ● FEATURES

1. Small size & compact space.
2. Terminals gold plated to enhance the life.
3. Special structure; increased strength between housing and base.
4. All plastic material subject to industrial purpose meets with UL94V-0 grade; high temperature and fireproof function caused by contact oxidized.
5. Suitable to IC trigger signal.
6. Complete replacement of mercury switch and meet with environmental protection.

### ● PATENTS

1. TAIWAN Patent NO. 191436
2. TAIWAN Patent NO. 216556
3. U.S.A. Patent NO. US 6,545,235 B1
4. U.S.A. Patent NO. US 6,784,386 B2
5. CHINA Patent NO. ZL 01 2 34013.0



## SENSOR SWITCH

Item.#	VBS01 Series	Description	VIBRATION SWITCH	Version	V96.0
Page	2 of 4		Date	Sep. 30, 2007	

● DIMENSIONS / OPERATION / P.C.B. LAYOUT (Unit: mm, Tolerance: ±0.25mm)

<p>VBS 01 01 00</p>	<p>Fleetingly Close When Being Shocked</p>	<p>P.C.B. Layout (DIP) / Top View</p>
<p>VBS 01 02 00</p>	<p>Fleetingly Close When Being Shocked</p>	<p>P.C.B. Layout (DIP) / Top View</p>

● ELECTRICAL CHARACTERISTICS

1.	Contact Rating	25mA , 24VDC
2.	Contact Resistance	Initial : 50Ω max. After Life Test : 100Ω max.
3.	Switching type	Normal Open (NO)
4.	Insulation Resistance	1000MΩ min. At 100 VDC
5.	Dielectric Strength	500 VDC min. for 1 minute
6.	Capacitance	5pF max



## SENSOR SWITCH

Item.#	VBS01 Series	Description	VIBRATION SWITCH	Version	V96.0
Page	3 of 4		Date	Sep. 30, 2007	

### ● 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 Cycles
4.	Conductive Rate (Switch-on Rate)	min. over 90%
5.	Humidity	95% RH, 40° C for 96 hrs.
6.	Solder ability	After flux 230±5°C for 5±0.5 seconds 95% coverage

### ● BILL OF MATERIAL

1.	Housing	ZINC Alloy, Tin Plated over Nickel
2.	Base	Class-Fiber Polyamide, UL 94-0
3.	Terminal	Copper Alloy, Gold Plated over Nickel
4.	Spring	Copper Alloy Nickel Plated

### ● PACKAGE

	Part Number	Package	Quantity	Total	Size
1.	VBS010100	PE Bag	500 pcs	500 pcs	12.7 x 17.8 cm
		Inner Box	10 Bags	5,000 pcs	36 x 20 x 9 cm
	VBS010200	Carton	3 Boxes	15,000 pcs	36 x 28 x 23 cm

\* Minimum Order Quantity: One Bag

**SENSOR SWITCH**

Item.#	VBS01 Series	Description	VIBRATION SWITCH	Version	V96.0
Page	4 of 4		Date	Sep. 30, 2007	

## ● NOTE

1. Suggestion Contact Rating: 5 mA.
2. Conductive Rate: To test the conductivity (Switch-on Rate) of one switch individually for 100 times, if the switch conductive 95 times, we call the “conductive rate” is 95%.
3. 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 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.
4. Don't use the switch in the environment with high humidity or other bedewing possibility, as it may cause leaking among the terminals.
5. It might catch fire if the rating exceeds the specifications. Never use the switch beyond the rating.