

TILT SENSOR SWITCH

| | | | | | |
|----------|-----------|-------------|--------------|--------------|----|
| Item No. | RBS200110 | Description | Ball-Contact | Version | 14 |
| Page | 1 of 9 | | Publish Date | May 29, 2018 | |

● FUNCTIONS

45° Tilt Detecting for 4 directions in horizontal mode.

● APPLICATIONS

1. Automatically shut off for home appliances
2. Automatically shut off for Sporting equipment
3. Alarm system
4. Anti-theft / Anti-tamper devices
5. Being motion detection (personal locator)



● FEATURES

1. Suitable for horizontal PCB.
2. Switch State: DIP Normal Open.
3. Tiny size, suitable for small space.
4. Gold-plated ball and terminals, low possibility of oxidization.
5. Housing made of high insulation plastic material, free from electric conduction and rust problem.
6. All plastic materials subject to industrial purpose, resist high temperature and meet fireproof function.
7. Simple ON and OFF signals, easy for design.
8. RoHS compliance, an ideal substitute for mercury switch.
9. A more economical tilt and vibration detection option than IC design solution.
10. All made in Taiwan and examined before shipment.

● PATENTS

1. Taiwan Patent No. I 239025
2. U.S.A. Patent No. US 7,045,724 B1
3. China Patent No. ZL 2004 1 0091589.7
4. China Patent No. 201220308500.8

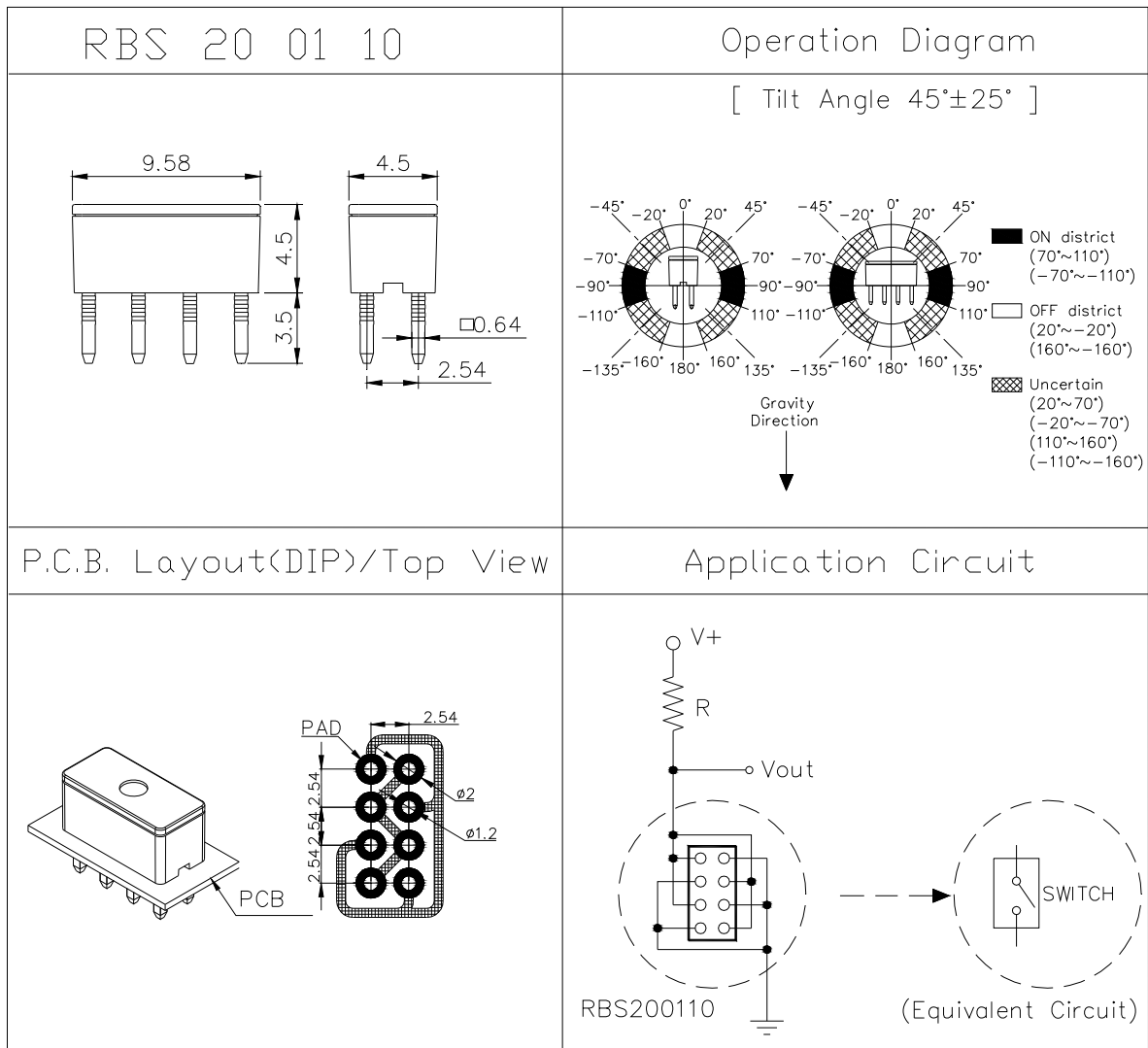


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| Page | 2 of 9 | | Publish Date | May 29, 2018 | |

● DIMENSIONS / OPERATION / P.C.B. LAYOUT (Unit: mm, Tolerance: $\pm 0.25\text{mm}$)

Fig. 1



TILT SENSOR SWITCH

| | | | | | |
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| Page | 3 of 9 | | Publish Date | May 29, 2018 | |

● Current/Voltage Suggested

| Input Current (mA) | Operating Voltage (V) | Condition |
|--------------------|-----------------------|-----------|
| 1.0 | 5 | -- |

● ELECTRICAL CHARACTERISTICS

| | | |
|---|-----------------------|------------------------|
| 1 | Contact Rating | 10 mA, 5 VDC |
| 2 | Contact Resistance | 10 Ω max. |
| 3 | Operation Diagram | Refer to Fig. 1 |
| 4 | Insulation Resistance | 1000 MΩ min., 100 VDC |
| 5 | Dielectric Strength | 500 VDC min., 1 minute |
| 6 | Capacitance | 5 pF max. |
| 7 | Conductive Rate | 98% min. |

● RELIABLE TEST ITEMS

Reliable Test for RBS200110

| | Test Item | Contents |
|---|-----------------------|------------------------------------|
| 1 | Operating Temperature | -25°C ~ 85°C |
| 2 | Storage Temperature | -40°C ~ 85°C |
| 3 | Humidity | 40 °C / 95 %RH |
| 4 | Mechanical Life | 2 Hz horizontal 1,000,000 times |
| 5 | Electrical Life | 100,000 times |



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| Page | 4 of 9 | | Publish Date | May 29, 2018 | |

● SOLDERING CONDITION

Following soldering conditions are for reference only, please use soldering information that solder paste manufacturer recommends.

| Condition Suitable Production Process | Soldering Temperature | Soldering Time | Wattage of Manual Soldering | Type |
|--|--------------------------|------------------|---|------|
| Wave Soldering | 260±5°C | < 5 seconds max. | - | DIP |
| Manual Soldering | 300±5°C | < 3 seconds max. | 30W or Temperature- controlled manual soldering | DIP |

● PACKAGE

| | Part Number | Package | Quantity | Total Quantity | Dimension(mm) |
|----|-------------|-----------|------------|----------------|----------------|
| 1. | RBS200110 | PE bag | 500 pcs | 500 pcs | 127L*178W |
| | | Inner box | 10 PE bags | 5,000 pcs | 348L*191W*85H |
| | | Carton | 3 Boxes | 15,000 pcs | 364L*278W*213H |

※ Package shown as below for reference.

