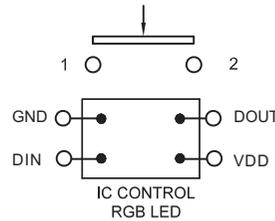
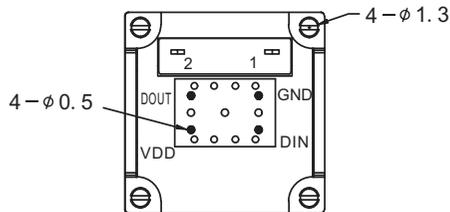
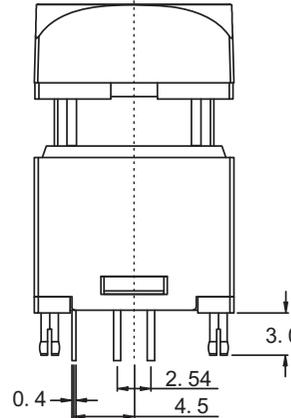
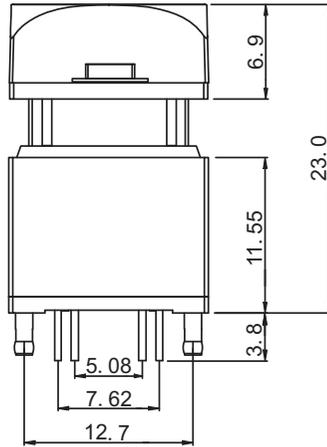
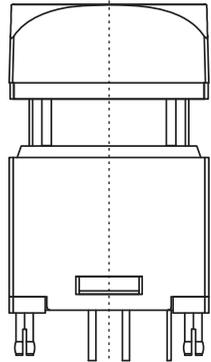
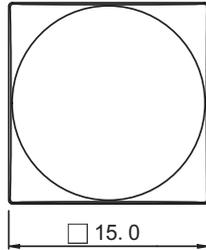


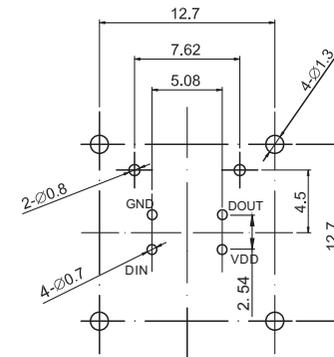
RoHS Compliant



SCHEMATIC

SPECIFICATION:

POLE POSITION: DPDT, MOMENTARY
 RATING: DC12V 100mA
 CONTACT RESISTANCE: 200mΩ Max(DC 1.5V)
 INSULATION RESISTANCE: 100MΩ Min(DC 500V)
 WITHSTAND VOLTAGE: AC 500V (50~60Hz For1 1min)
 ELECTRICAL LIFE: 2,000,000 cycles Min
 OPERATING FORCE: 250 ± 80gf
 TRAVEL: 4.5 ± 0.3mm
 AMBIENT TEMPERATURE: -20°C~+75°C
 SOLDERING TEMPERATURE: 260 ± 5°C 3s



P.C.B LAYOUT

| | | | | | | | | | | |
|-----|-------------|-----|----------|---------|-----------|----------------------|----------------------------|-----------|-------------|----------------|
| 6 | | | | | PART NAME | PUSH SWITCH WITH LED | RJS Electronics Ltd | | | |
| 5 | | | | | PART No. | RJSBS | | | | |
| 4 | | | | | DESIGNED | | VIEW | | UNIT | mm |
| 3 | | | | | CHECKED | | VER | 1.0 | ANGLES | ± 1.5° |
| 2 | | | | | APPROVED | | SHEET | 1 OF 1 | TOLERANCE | 30≤L ± 0.30 |
| 1 | | | | | | | DATE | '12.06.15 | | 10≤L≤30 ± 0.20 |
| NO. | DESCRIPTION | QTY | MATERIAL | PLATING | | | | | L≤10 ± 0.20 | |

1. General Characteristics

- 1.1 (Rating Value): DC12V 100mA.
- 1.2 (Work Temperature Range): $-25^{\circ}\text{C} \sim 70^{\circ}\text{C}$
- 1.3 (Store Temperature Range): $-25^{\circ}\text{C} \sim 80^{\circ}\text{C}$
- 1.4 General test condition (Tests and measurements shall be made under the following standard conditions unless otherwise specified):

Temperature: $5^{\circ}\text{C} \sim 35^{\circ}\text{C}$ Relative humidity: $45\% \sim 85\%$ Air pressure: $8,600 \sim 10,600$ pa

2. Appearance & Dimension Requirement

- 2.1 The structure of product is compact, and assembly of parts is simple
- 2.2 The plastic parts of the product have no serious defects such as serious shrinkage, scarcity, flecks, disrepair, transmutation, etc.
- 2.3 Lead feet and shell have no serious defects such as oxidation, smudges, disrepair, burr, defects on plating.
- 2.4 Operating switch is unhindered, rhythmical, and there is not palpable clag. (After the keystroke is locked, it is normal that the keysrtoke tilt to one side plus or minus 2°)
- 2.5 Construction and dimensions: Refer to individual product drawing.

3. Electronic Characteristics

| No. | Item | Test Method | Equipment | Requirements |
|-----|------------------------------|--|------------------------------|---|
| 3.1 | Contact Resistance | Measured at low current (100mA or less). | Low Resistance Meter | $200\text{m}\Omega$ max |
| 3.2 | Insulation Resistance | Measurement shall be made between adjacent terminals, between terminal and shell(DC 500V). | Insulation Resistance Tester | $100\text{M}\Omega$ min |
| 3.3 | Dielectric Withstand Voltage | Apply certain voltage (50-60Hz, AC 500V) for 1 minute between adjacent contacts of the connector with 2mA leakage sensitivity. | Puncture Tester | No arcing , break down and damaging insulation. |

4. Mechanical Characteristics

| No. | Item | Test Method | Equipment | Requirements |
|-----|-----------------|---|-----------------|------------------------|
| 4.1 | Operation Force | Operate the keystroke of the switch and then increase press strength gradually, Measured maximum operation force while the travel of the switch is full. | Force Gauge | $250 \pm 80\text{gf}$ |
| 4.2 | Full travel | Operate the keystroke of the switch vertically, the travel distance of keystroke moving from its free position to maximum moving distance shall be the measurement. | Vernier Caliper | $4.5 \pm 0.3\text{mm}$ |

5. Reliability trial

| No. | Item | Test Method | Equipment | Requirements |
|-----|---------------------|---|--------------|---|
| 5.1 | Solder ability Test | The top of the terminals shall be dipped in the solder bath at $260 \pm 5^\circ\text{C}$ for 5 ± 1 seconds. | Solder Stove | Ninety-five percent of terminals shall be dipped. |
| 5.2 | Operation Life | Switch shall be operated continuously at about 90 cycles /min without load. | Life Tester | Life test: 2,000,000 cycles After test: Insulation resistance: 10MΩ Min Operating force: Change should be within $\pm 50\%$ of specified value. No abnormalities shall be recognized in appearance and construction. |

5. Reliability trial

| No. | Item | Test Method | Equipment | Requirements |
|-----|------------------------------|--|---------------------------------------|---|
| 5.3 | Resistance to Soldering heat | Terminals shall be dipped in the solder bath at $260\pm 5^{\circ}\text{C}$ for 5 ± 1 seconds without additional force for terminals. | Solder Stove | Appearance should be not damaged, electrical and mechanical characteristics shall be satisfied. |
| 5.4 | Resistance to Heat Test | The switch shall be stored at a temperature of $80\pm 2^{\circ}\text{C}$ for 96 hours, Measurements shall be made after it be subjected to the standard conditions for 1 hour. | High & Low Temperature Tester | Appearance, electrical and mechanical characteristics shall be satisfied. |
| 5.5 | Resistance to Cold Test | The switch shall be stored at a temperature of $-25\pm 2^{\circ}\text{C}$ for 96 hours, Measurements shall be made after it be subjected to the standard conditions for 1 hour. | High & Low Temperature Tester | Appearance, electrical and mechanical characteristics shall be satisfied. |
| 5.6 | Resistance to Humidity Test | The switch shall be stored at a temperature of $40\pm 2^{\circ}\text{C}$, relative humidity $90\sim 96\%$ for 96 hours, Measurements shall be made after it be subjected to the standard conditions for 1 hour (Wipe out water drip). | Temperature & Humidity Tester Chamber | Appearance, electrical and mechanical characteristics shall be satisfied. |
| 5.7 | Salt Mist Test | The switch shall be checked after following test: 1. Temperature: $35\pm 5^{\circ}\text{C}$ 2. Salt solution: $5\pm 1\%$ (Solids by mass) 3. Duration: 24 hours, 4. After immersing, salt deposit shall be removed by running water. | Salt Spray Tester | No remarkable corrosion shall be recognized in metal parts. |