

|  | SPECIFICATION | Page $: 1 / 4$ |
| :---: | :---: | :---: |
|  | DOUBLE ACTION SWITCH |  |

1. GENERAL
1.1 Application: This specification is applied to low current circuit tactile switch for electronic equipment.
1.2 Operating temperature range : -20~70 ${ }^{\circ}$, $45 \sim 85 \% \mathrm{RH}$
1.3 Storage temperature range : $-30 \sim 80^{\circ} \mathrm{C}$ However, 96 hours maximum for continuous storage over a range

$$
-20 \sim-30^{\circ} \mathrm{C} \text { and a range } 70 \sim 80^{\circ} \mathrm{C}
$$

1.4 Test conditions: The standard test conditions shall be $5 \sim 35^{\circ} \mathrm{C}$ in temperature, $45 \sim 85 \% \mathrm{RH}$ and $860 \sim 1060 \mathrm{mbar}$ in atmospheric pressure. Should any doubt arise in judgement, test shall be conducted at $20 \pm 2^{\circ} \mathrm{C}, 65 \pm 5 \% \mathrm{RH}$ and $860 \sim 1060 \mathrm{mbar}$.

## 2. RATED VOLTAGE AND CURRENT.

DC 30V 20 mA
3. ELECTRICAL PERFORMANCE

|  | PROPERTY | TEST CONDITIONS | PERFORMANCE |
| :---: | :---: | :---: | :---: |
| 3.1 | Contact arrangement |  | *1 pole, 2 throw |
| 3.2 | Contact resistance | Measured at DC 5V 10 mA or by ohmmeter allowing a small current at 1 KHz with a load of twice of the actuating force. | *less than $200 \mathrm{~m} \Omega$ |
| 3.3 | Insulation resistance | DC 100 V is applied between across terminals and between terminals and cover for 1 minute $\pm 5$ seconds. | *greater than $50 \mathrm{M} \Omega$ |
| 3.4 | Dielectric <br> strength | AC $250 \mathrm{~V}(50 \sim 60 \mathrm{~Hz}$ ) is applied between across terminals and between terminals and cover for 1 minute. | *No insulation defect shall be observed. |
| 3.5 | Bounce | Measured by lightly striking the center of the stem at a rate of 3 operations $/ \mathrm{sec}$.. | *ess than 10 m sec |


|  |  |  |  |  |  | APPD | CHKD | DSGD | TITLE | JTP 2100 SERIES |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | DOCUMENT <br> NO. | JT 0122 |


|  | SPECIFICATION | Page $: 2 / 4$ |
| :---: | :---: | :---: |
|  | DOUBLE ACTION SWITCH |  |

4. MECHANICAL PERFORMANCE

|  | PROPERTY | TEST CONDITIONS | PERFORMANCE |
| :---: | :---: | :---: | :---: |
| 4.1 | Operating force | A gradually increasing load is applied to the center of the stem. | *As per individual manufactured drawing. |
| 4.2 | Travel |  |  |
| 4.3 | Stop strength | A static force of 3 Kgf shall be applied to the direction of the stem operation for 3 seconds. | *Shall be free from mechanical and electrical abnormalities. |
| 4.4 | Stem withdrawal force | A static load of 500 gf is applied to the direction of the stem pulling for 3 seconds. | *Shall be free from mechanical and electrical degradation. |
| 4.5 | Arrangement of action |  | *Tactile feed-back. |

5. DURABILITY

|  | PROPERTY | TEST CONDITIONS | PERFORMANCE |
| :---: | :---: | :---: | :---: |
| 5.1 | Operating life | 10,000 cycles operation with a maximum value of actuating force at a rate of 2 cycles/sec. With a resistive load supplying DC 30V 20 mA . | *Contact resistace : <br> $300 \mathrm{~m} \Omega \max$. <br> *Bounce: 10m sec max. <br> *Insulation resistance : |
| 5.2 | Cold heat proof | After testing at $-30 \pm 2^{\circ} \mathrm{C}$ for 96 hours, the sample is allowed to stand under normal temperature and humidity conditions for 1 hour and measurement is performed within 1 hour after that. Water drops should be wiped off. | $10 \mathrm{M} \Omega \mathrm{min}$. <br> *Dielectric strength : <br> same as item 3.4. |


|  |  |  |  |  |  | APPD | CHKD | DSGD | TITLE | JTP 2100 SERIES |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |
| ZONE | SYMB | DATE | APPD | CHKD | DSGD |  |  |  | DOCUMENT NO. | JT 0122 |


|  | SPECIFICATION | Page :3/4 |
| :---: | :---: | :---: |
|  | DOUBLE ACTION SWITCH |  |

5. DURABILITY

|  | PROPERTY | TEST CONDITIONS | PERFORMANCE |
| :---: | :---: | :---: | :---: |
| 5.3 | Dry heat proof | After testing at $85 \pm 2^{\circ} \mathrm{C}$ for 96 hours, the sample is allowed to stand under normal temperature and humidity conditions for 1 hour and measurement is performed within 1 hour after that. | *Contact resistace : <br> $300 \mathrm{~m} \Omega \max$. <br> *Bounce: 10m sec max. <br> *Actuating force : within <br> $\pm 30 \%$ of the initial value. |
| 5.4 | Damp heat proof | After test at $60 \pm 2^{\circ} \mathrm{C}$ and $90 \sim 95 \%$ in relative humidity for 96 hours, the sample is allowed to stand under normal temperature and humidity conditions for 1 hour, and measurement is performed within 1 hour after that. Water drops should be wiped off. | *Insulation resistance : <br> $10 \mathrm{M} \Omega \mathrm{min}$. <br> *Dielectric strength : <br> same as item 3.4. |
| 5.5 | Thermal cycling | After the test conducted under 5 cycles the sample is allowed to stand under normal temperature and humidity conditions for 1 hour, and the measurement is performed within 1 hour. |  |


|  |  |  |  |  |  | APPD | CHKD | DSGD | TITLE | JTP 2100 SERIES |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  | DOCUMENT | JT 0122 |
| ZONE | SYMB | DATE | APPD | CHKD | DSGD |  |  |  |  | JT 0122 |


|  | SPECIFICATION | Page $: 4 / 4$ |
| :---: | :---: | :---: |
|  | DOUBLE ACTION SWITCH |  |

6. Refolw soldering
6.1 Reflow soldering conditions

Preheat --- Temperature on the copper foil surface should reach $180^{\circ} \mathrm{C}, 2 \pm 0.3$ minutes after the PWB entered into the soldering heat zone.

Soldering heat --- Temperture on the copper foil surface should reach the peak temperature of $240^{\circ} \mathrm{C}$ within 20 seconds after PWB entered into soldering heat zone.


|  |  |  |  |  |  | APPD | CHKD | DSGD | TITLE |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components
Click to view similar products for Tactile Switches category:

## Click to view products by NAMAE manufacturer:

Other Similar products are found below :
5GTH92001 5GTH9202242 ADTSA62NV ADTSA62RV B3F-3123 1977177-8 1977266-1 ADTSA63NV ADTSM21NSVTR ADTSM25RVTR ADTSM32NVTR ADTSMW64RV FSMRA4JHA04 GS4.70F300QP 3ESH9R KSC241J SP DELTA LFS 3FTL600RAS 3FTL640RAS Y96K132V0FPLFS 5GSH92001 5GTH9658222 ADTSM31NVTR 2-1977120-7 TSJW-5.2-260-TR KMT011MNGJLHS ADTSG648NV ADTSM62KSVTR ADTSM648NV 95C06E3RAT 3ATH9Q FSM4JSMLXTR FSM4JSMXL FSMRA8JHA04 HARS0073 Y97HS12A5RAFP Y97BT23B2HAFP Y33R411N9FPLFT Y31C01402FPLFS PTS645SK50SMTR92 ADTSM32NVB KMS233GPWTLFG Y78B42324FP Y33R21116FPLFT Y31B43131FPLFG Y78B64124FP Y71243251FP Y33R31119FPLFT Y97HS12A5TAFP PTS638SK25SMTR2LFS Y97LT25BADBFP

