## EDCON-COMPONENTS



RoHS

## SPECIFICATION:

| Current Rating: | DC12V $/ 50 \mathrm{~mA}$ |
| :--- | :--- |
| Insulator Resistance: | $100 \mathrm{Mega} \Omega \mathrm{min}$. |
| Contact Resistance: | $100 \mathrm{~m} \Omega \mathrm{max}$. |
| Travel: | $0,25 /+/-0,1 \mathrm{~mm}$ |
| Operating Temperature: | $-40^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$ |
| Lifetime: | look order code |
| Operating Force: | look order code |
| Common Specifications |  |


| Life Test | $50 / 80$ Cycles / Min with 5VDC <br> 5 mA Resistive load Cycles of <br> Operation: As per individuall <br> Specifications |
| :---: | :---: |
| Dry Heat Proof | $80^{\circ} \mathrm{C}+/-2^{\circ} \mathrm{C}$ for 96hours after Test <br> Kept in Normal Condition for <br> 30 Min. |
| Moisture Resistance | $60^{\circ} \mathrm{C}+/-2^{\circ} \mathrm{C} 90 \sim 95 \%$ RH for 96 <br> Hours After Test, Kept in Normal <br> Condition for 30 Minutes |


| Cold Proof | $\begin{array}{c}\text { Condition for 30 Minutes } \\ \hline 0^{\circ} \mathrm{C} \text { for 96 Hours After Test } \\ \text { Kept in Normal Condition for } \\ 30 \text { Minutes. }\end{array}$ |  |
| :---: | :---: | :---: | :---: |
| Operating Force | $\begin{array}{l}\text { If refers to the maximum load at } \\ \text { the time of switching over of the } \\ \text { contacts. (Point A in the figure) }\end{array}$ |  |
| Travel | $\begin{array}{l}\text { This refers to the state of repeating } \\ \text { the contact openeing or closng } \\ \text { momentarily at the time of the }\end{array}$ |  |
| changeover of the swirch to ON or |  |  |
| OFF. Longer duration of this state |  |  |$]$

[^0]Drawing



Circuit Diagramm


TACT SWITCH THT $12,0 \times 12,0 \mathrm{~mm}$

| Part No.: | Q11032 |
| :--- | :--- |
| Customer: |  |

Dimension

| Order Code | $\mathrm{H}(\mathrm{mm})$ | $\varnothing \mathrm{A}(\mathrm{mm})$ |
| :---: | :---: | :---: |
| A01 | 4,3 | 6,4 |
| A02 | 4,5 | 6,4 |
| A03 | 5,0 | 6,4 |
| A04 | 5,5 | 6,4 |
| A05 | 6,0 | 6,4 |
| A06 | 6,5 | 6,2 |
| A07 | 7,0 | 6,3 |
| A08 | 7,5 | 6,2 |
| A09 | 7,7 | 6,2 |
| A10 | 8,0 | 6,3 |
| A11 | 8,5 | 6,3 |
| A12 | 9,0 | 6,2 |
| A13 | 9,5 | 6,2 |
| A14 | 10,0 | 6,3 |
| A15 | 10,5 | 6,2 |
| A16 | 11,0 | 6,2 |
| A17 | 11,5 | 6,2 |
| A18 | 12,0 | 6,2 |
| A19 | 12,5 | 6,2 |
| A20 | 13,0 | 6,2 |
| A21 | 14,0 | 6,2 |
| A22 | 15,0 | 6,2 |
| A23 | 15,5 | 6,2 |
| A24 | 17,0 | 6,1 |
| A25 | 18,0 | 6,1 |
| A26 | 19,7 | 6,1 |
| A27 | 21,0 | 6,1 |


| Order Code | $\mathrm{H}(\mathrm{mm})$ | $\varnothing \mathrm{A}(\mathrm{mm})$ |
| :---: | :---: | :---: |
| A28 |  |  |
| A29 |  |  |
| A30 |  |  |
| A31 |  |  |
| A32 |  |  |
| A33 |  |  |
| A34 |  |  |
| A35 |  |  |
| A36 |  |  |
| A37 |  |  |
| A38 |  |  |
| A39 |  |  |
| A40 |  |  |
| A41 |  |  |
| A42 |  |  |
| A43 |  |  |
| A44 |  |  |
| A45 |  |  |
| A46 |  |  |
| A47 |  |  |
| A48 |  |  |
| A49 |  |  |
| A50 |  |  |
| A51 |  |  |
| A52 |  |  |
| A53 |  |  |
| A54 |  |  |


| DRW: | Jason | CHKD | Wilson | MATL: | Wilson | TOLERANCE | Mason | DATE | 15.12.2021 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Part No.: | Customer: |  |  |  |  |  |  |  |  |
| APPD: | Schumi |  |  | FINISH | Jamy |  |  |  |  |

## EDCON-COMPONENTS



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## Ordering Informations

| Serie | Total (H) | Function | Operating Force | Function | Electrical life | Function | ROHS | Packing |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q11032 | A01 | N | 131 | N | 304 | N | R | BU |  |  |


| $\mathbf{A x x}=\text { look order }$Code Axx | $\mathrm{N}=$ No function | $131=130 \mathrm{gr}$ | $\mathrm{N}=$ No function | $\begin{aligned} & 304=300000 \\ & \text { cycles of } 130 \mathrm{gr} \text {. } \\ & \text { O-Force } \end{aligned}$ | $\mathrm{N}=$ No function | N= non ROHS | BU= Bulk Ware 1000PCS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $181=180 \mathrm{gr}$ |  |  |  | R= ROHS |  |
|  |  |  |  | $\left\lvert\, \begin{aligned} & 304=300000 \\ & \text { cycles of } 180 \mathrm{gr} \text {. } \\ & \text { O-Force } \end{aligned}\right.$ |  | conform |  |
|  |  | $251=250 \mathrm{gr}$ |  |  |  |  |  |
|  |  |  |  | $105=1.000 .000$ cycles of 100 gr . O-Force |  |  |  |



## EDCON-COMPONENTS

## Soldering Profile for Lead Free Soldering

Classification Reflow Profile (JEDEC J-STD-020C)


| DRW: | Jason | CHKD | Wilson | MATL: | Wilson | TOLERANCE | Mason | DATE | 15.12 .2021 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| APPD: | Schumi |  |  | FINISH | Jamy |  | Qust No.: |  |  |
| enw.edcon-components.com | email: info@edcon-components.com |  |  |  |  |  |  |  |  |

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## Test Sequence

## Appearance

| Item | Description | Test Conditions | Requirements |
| :---: | :---: | :--- | :--- |
| 1 | Visual <br> Examination | By visual examination check without <br> any out pressure \& testing. | There shall be no defects that affect <br> the serviceability of the product. |

Electric Performance

| Item | Description | Test Conditions | Requirements |
| :---: | :---: | :--- | :--- |
| 1 | Contact <br> Resistance | Applying a static load 1.5-2 times the <br> operating force to the center of the sterm, <br> measurements shall be made with a 1 kHz <br> small current contact resistance meter. | $100 \mathrm{~m} \Omega \mathrm{max}$ |
| 2 | Insulation <br> Resistance | Measurements shall be made following <br> application of 500 V DC potential across <br> terminals and cover for 1 minute $\pm 5$ seconds | $100 \mathrm{M} \Omega \mathrm{min}$ |
| 3 | Capacitance | $1 \mathrm{MHz} \pm 10 \mathrm{kHz}$ | 5 pf max |
| 4 | Bounce | 3 to 4 operations at a rate of 1 cycles per <br> second | 5 m seconds max |

TACT SWITCH THT 12,0x12,0mm

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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| APPD: | Schumi |  |  | FINISH | Jamy |  | Q11032 |  |  |

ROHS Lead Free

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## Test Sequence

Mechanical Performance

| Item | Description | Test Conditions | Requirements |
| :---: | :---: | :---: | :---: |
| 1 | Operating Force | Applied in the direction of operation | $\begin{array}{ccccc} \hline \text { O } & \text { N } & R & S & Y \\ F & 160 \mathrm{~g} & 260 \mathrm{~g} & 320 \mathrm{~g} & 520 \mathrm{~g} \\ & \pm 50 \mathrm{~g} & \pm 50 \mathrm{~g} & \pm 80 \mathrm{~g} & \pm 130 \mathrm{~g} \end{array}$ |
| 2 | Stoke | Placing the switch such that the direction of switch operation is vertical and then grandually increasing the load appiled to the stem, the storke distance for the stem to come to a stop shall be measured. | $0.35 \mathrm{~mm} \pm 0.1 \mathrm{~mm}$ |
| 3 | Stop Strength | Placing the switch such that the direction of switch operation is vertical, a static load of $3 \mathrm{kgf}(29.4 \mathrm{~N})$ shall be applied in the direction of stem operation for a period of 15 seconds | 1) As shown in item $4 \sim 7$ <br> 2) Contact Resistance: $200 \mathrm{~m} \Omega$ Max <br> 3) Insulation Resistance: $10 \mathrm{M} \Omega \mathrm{min}$ |
| 4 | Vibration | Shall be vibrated in accordance with Method 201A of MIL-STD-202F <br> 1) Frequency: $10-55-10 \mathrm{~Hz}$ in $1-\mathrm{min} / \mathrm{cycle}$. <br> 2) Direction: 3 vertical directions including the directions of operation. <br> 3) Test time: 2 hours each direction <br> 4) Swing distance $=1.5 \mathrm{~mm}$ | 1) As shown in item $4 \sim 7$ <br> 2) Contact Resistance: $200 \mathrm{~m} \Omega$ Max <br> 3) Insulation Resistance: $10 \mathrm{M} \Omega$ min |

TACT SWITCH THT $12,0 \times 12,0 \mathrm{~mm}$


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## Test Sequence

## Mechanical Performance

| Item | Description | Test Conditions | Requirements |
| :---: | :---: | :---: | :---: |
| 5 | Shock | Shall be shocked in accordance with Method 213B condition A of MIL-STD-202F <br> 1) Acceleration; 50 G <br> 2) Action time:11 $\pm 1 \mathrm{~m}$ seconds <br> 3) Testing Direction:6 sides <br> 4) Test Cycle:3 times in each direction | 1) As shown in item $4 \sim 7$ <br> 2) Contact Resistance: $200 \mathrm{~m} \Omega$ Max <br> 3) Insulation Resistance: $10 \mathrm{M} \Omega \mathrm{min}$ |
| 6 | Solderability | 1) Through Hole Soldering <br> Temperature: $245^{\circ} \mathrm{C} \pm 3^{\circ} \mathrm{C}$ <br> Lead-Free solder: M705E JIS Z 3282 A <br> ( Tin 96.5\%, Silver 3\%, Copper 0.5\% ) <br> 2) Flux: $5 \sim 10 \mathrm{sec}$ <br> 3) Duration of solder Immersion: $5 \pm 1 \mathrm{sec}$ | No anti-soldering and the coverage of dipping into solder must more than $66 \%$ was requested. |

Weatherproof

| Item | Description | Test Conditions | Requirements |
| :---: | :---: | :---: | :---: |
| 2 | Resistance High Temperature | Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before the measurements are made: <br> 1) Temperature: $-25 \pm 3^{\circ} \mathrm{C}$ <br> 2) Time: 96 hours | 1) As shown in item $4 \sim 7$ <br> 2) Contact Resistance: $200 \mathrm{~m} \Omega$ Max <br> 3) Insulation Resistance: $10 \mathrm{M} \Omega \mathrm{min}$ |


|  |  |  |  |  |  |  |  |  |  | Part No.: | Q11032 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DRW: | Jason | CHKD | Wilson | MATL: | Wilson | TOLERANCE | Mason | DATE | 15.12.2021 | Customer: |  |
| APPD: | Schumi |  |  | FINISH | Jamy |  | Sheet No. |  | 7 from 8 |  |  |

## EDCON-COMPONENTS



## Test Sequence

Durability

| Item | Description | Test Conditions | Requirements |
| :---: | :---: | :---: | :---: |
| 1 | Operating Life | Measurements shall be made following the test forth below: <br> - $5 \mathrm{~mA}, 5 \mathrm{VDC}$ resistive load <br> - Applying a static load the operating force to the center of the stem in the direction of operation. Static Load $=$ OF Max <br> - Cycle of Operation: <br> 200,000 cycle's Min. For 100,160gf <br> 100,000 cycle's Min. For 260gf <br> 50,000 cycle's Min. For 320,520 gf | - As shown in item 4 ~ 5 <br> - Operating force: $\pm 50 \%$ of initial force. <br> - Contact Resistance: $10 \Omega$ Max <br> - Insulation Resistance: $10 \mathrm{M} \Omega$ Min <br> - Bounce: 10 m seconds Max |




[^0]:    www.edcon-components.com

[^1]:    www.edcon-components.com

