

# General Specifications

## Electrical Capacity (Resistive Load)

|                             |               |
|-----------------------------|---------------|
| <b>Switching Rating:</b>    | 25mA @ 24V DC |
| <b>Nonswitching Rating:</b> | 0.1A @ 50V DC |

## Other Ratings

|                               | JS02 Extended Actuator               | JS04 Flush Actuator                  |
|-------------------------------|--------------------------------------|--------------------------------------|
| <b>Contact Resistance:</b>    | 50 milliohms maximum                 | 50 milliohms maximum                 |
| <b>Insulation Resistance:</b> | 100 megohms minimum @ 500V DC        | 100 megohms minimum @ 100V DC        |
| <b>Dielectric Strength:</b>   | 500V AC minimum for 1 minute minimum | 300V AC minimum for 1 minute minimum |
| <b>Mechanical Life:</b>       | 2,000 operations minimum             | 2,000 operations minimum             |
| <b>Electrical Life:</b>       | 2,000 operations minimum             | 2,000 operations minimum             |
| <b>Total Travel:</b>          | .031" (0.8mm)                        | .026" (0.65mm)                       |

## Materials & Finishes

|                   | JS02 Extended Actuator                     | JS04 Flush Actuator                        |
|-------------------|--------------------------------------------|--------------------------------------------|
| <b>Actuator:</b>  | Glass fiber reinforced polyamide           | Glass fiber reinforced polyamide           |
| <b>Cover:</b>     | Glass fiber reinforced polyamide (UL94V-0) | Glass fiber reinforced polyamide (UL94V-0) |
| <b>Base:</b>      | Glass fiber reinforced polyamide (UL94V-0) | Glass fiber reinforced polyamide (UL94V-0) |
| <b>Contacts:</b>  | Beryllium copper with gold plating         | Copper alloy with gold plating             |
| <b>Terminals:</b> | Brass with gold plating                    | Brass with gold plating                    |

## Environmental Data

|                              |                                                                                                                                                    |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Operating Temp Range:</b> | <b>JS02 Extended Actuator:</b> -20°C through +70°C (-4°F through +158°F)<br><b>JS04 Flush Actuator:</b> -30°C through +85°C (-22°F through +185°F) |
| <b>Humidity:</b>             | 90 ~ 95% humidity for 96 hours @ 40°C (104°F)                                                                                                      |
| <b>Vibration:</b>            | 10 ~ 55Hz with peak-to-peak amplitude of 1.5mm traversing the frequency range & returning in 1 minute; 3 right angled directions for 2 hours       |
| <b>Shock:</b>                | 50G (490m/s <sup>2</sup> ) acceleration (tested in 6 right angled directions, with 5 shocks in each direction)                                     |

## PCB Processing

|                   |                                                                                                                                                                                                                     |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Soldering:</b> | Reflow Soldering Recommended. See Profile A in Supplement section.<br>Manual Soldering: See Profile A in Supplement section.<br>Note: Switches are packaged in OFF position and should be soldered in OFF position. |
| <b>Cleaning:</b>  | These devices are not process sealed. Hand clean locally using alcohol based solution.                                                                                                                              |

## Standards & Certifications

|                                |                                                                                                                                                                                                                                                                                                              |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Flammability Standards:</b> | UL 94V-0 rated cover & base<br>The JS Series slides have not been tested for UL recognition or CSA certification.<br>These switches are designed for use in a low-voltage, low-current circuit.<br>When used as intended in a low-voltage, low-current circuit, the results do not produce hazardous energy. |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

# Distinctive Characteristics

Extended and flush slide actuators available.

Twin sliding contact mechanism with self-cleaning action (JS02) provides smooth actuation and produces high contact reliability.

Gold plated contacts prevent oxidation and sulfide effect and provide stable contact resistance.

Use of self-extinguishing UL94V-0 certified material in cover and base provides high arc resistance and high insulation resistance.

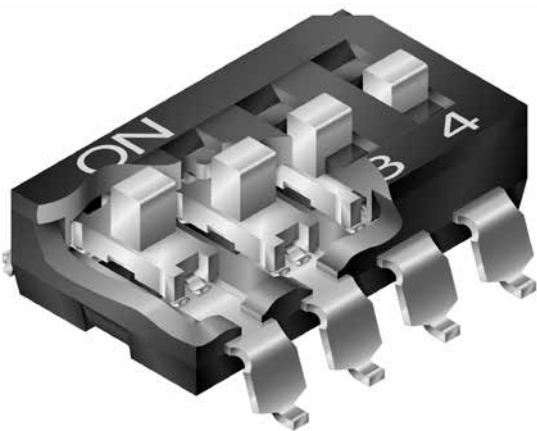
Gull-wing terminals ensure secure PCB mounting and prevent dislodging during vapor phase and infrared convection reflow soldering.

Terminal spacing conforms to standard PCB grid.  
For JS02: .100" (2.54mm)  
For JS04: .050" (1.27mm)

End-to-end stackable.

Packaged in tape-reel or stick-tube. Tape-reel packaging meets EIA-481-D Standard.

Coplanarity: all considered surfaces must lie between two parallel planes that are a maximum distance apart of .0059" (0.15mm). (Additional coplanarity details in Terms and Acronyms in the Supplement section.)



| Actual Sizes |  |
|--------------|--|
| JS02         |  |
| JS04         |  |

Toggles

Rockers

Pushbuttons

Illuminated PB

Programmable

Keylocks

Rotaries

Slides

Tactiles

Tilt

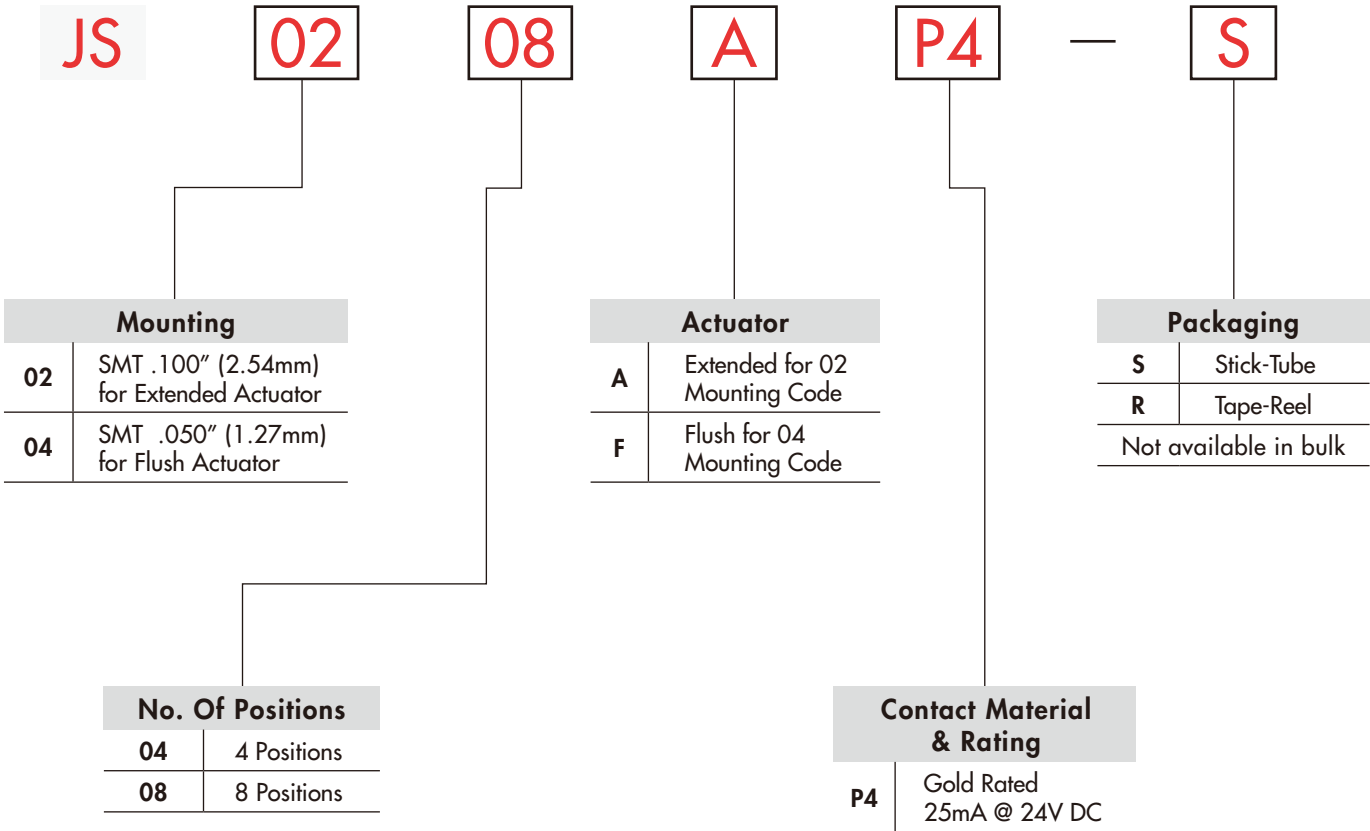
Touch

Indicators

Accessories

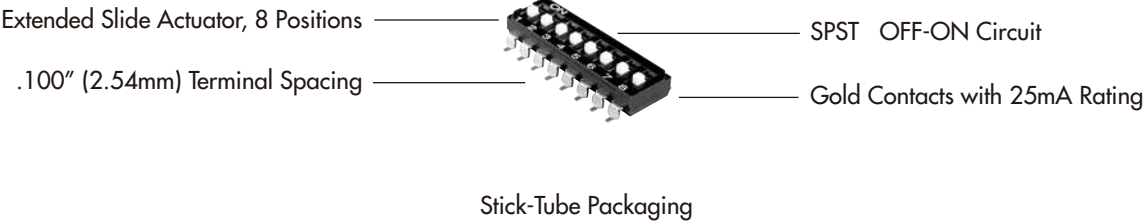
Supplement

TYPICAL SWITCH ORDERING EXAMPLE



DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

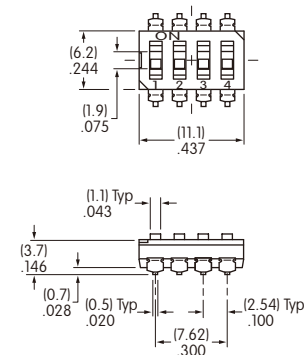
JS0208AP4-S



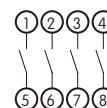
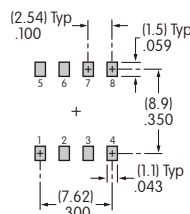
## TYPICAL SWITCH DIMENSIONS

## Single Pole

## 4 Positions • Extended Actuator



End View

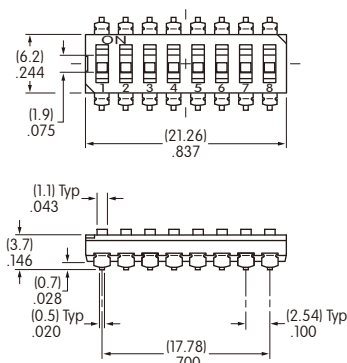


Schematic

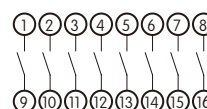
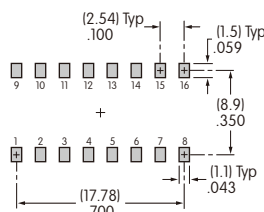
JS0204AP4

## Single Pole

## 8 Positions • Extended Actuator



End View

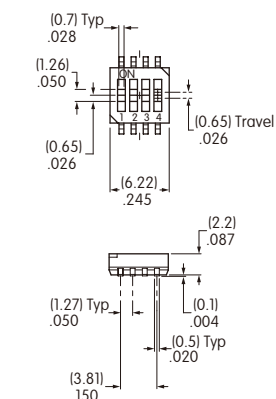


Schematic

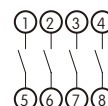
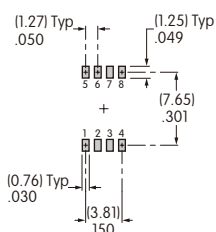
JS0208AP4

## Single Pole

## 4 Positions • Flush Actuator



End View

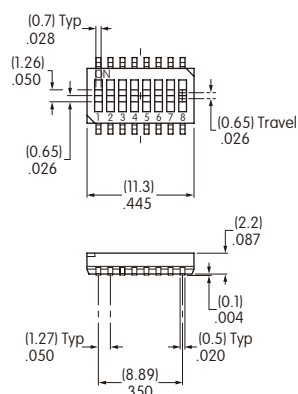


Schematic

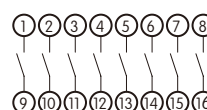
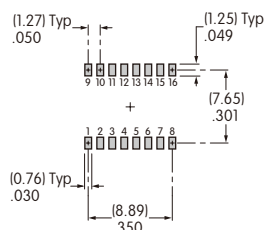
JS0404FP4

## Single Pole

## 8 Positions • Flush Actuator



End View



Schematic

JS0408FP4

### PACKAGING

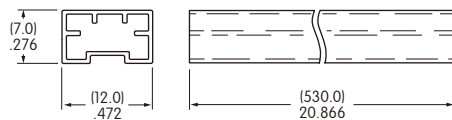
**S**

#### Stick-Tube Packaging

Switches are packaged in OFF position.  
Switches are not available in bulk and must be ordered in the following increments:

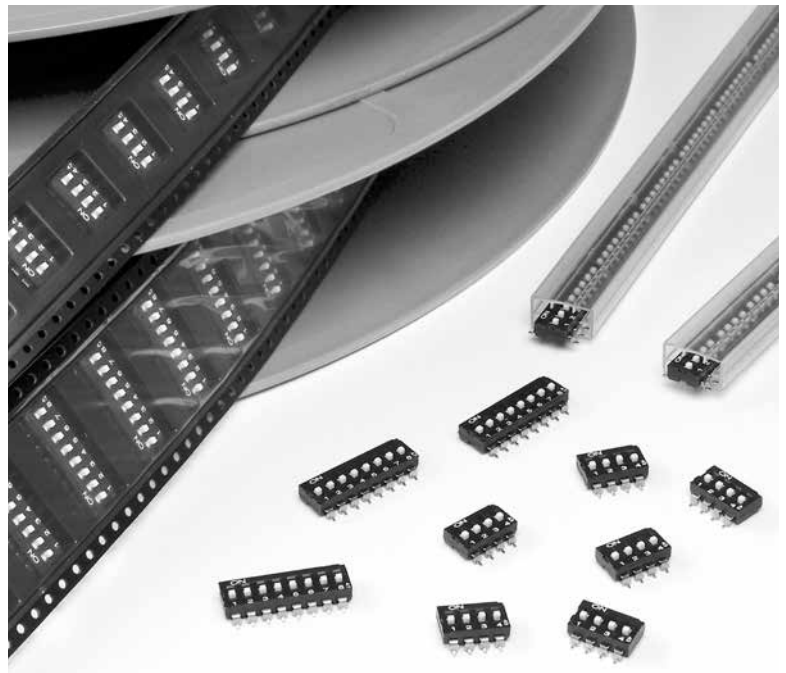
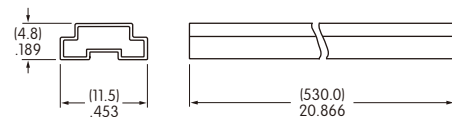
##### Extended Actuator

JS0204AP4-S: 46 pieces per stick-tube  
JS0208AP4-S: 24 pieces per stick-tube



##### Flush Actuator

JS0404FP4-S: 80 pieces per stick-tube  
JS0408FP4-S: 45 pieces per stick-tube



**R**

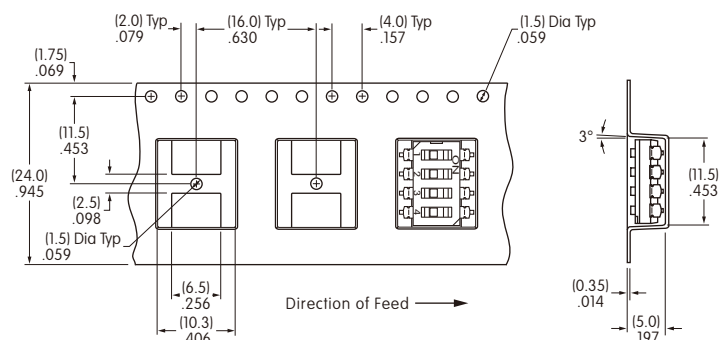
#### Tape-Reel Packaging for Extended Actuator

Switches are packaged in OFF position.  
Switches are not available in bulk and must be ordered in the following increments:

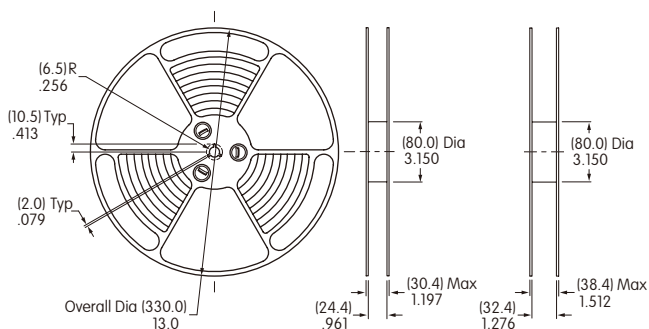
JS0204AP4-R: 500 pieces per tape-reel  
JS0208AP4-R: 500 pieces per tape-reel

Minimum Leader Length: 15.75" (400mm)  
Minimum Trailer Length: 6.3" (160mm)

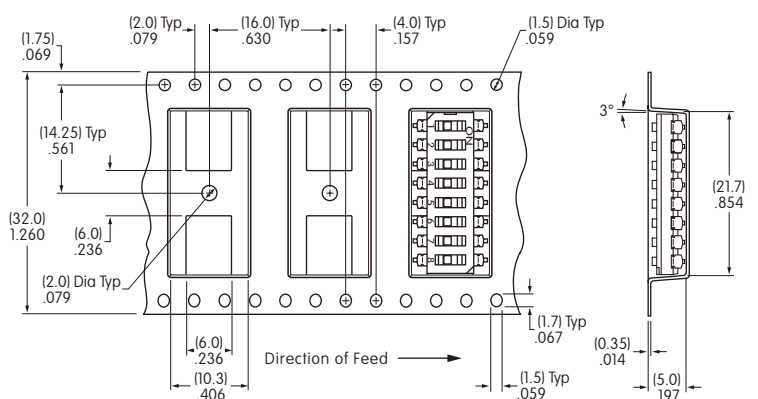
Tape-reel packaging meets EIA-481-D Standard.



Tape Dimensions for JS0204AP4-R



Reel Dimensions JS0204AP4-R JS0208AP4-R



Tape Dimensions for JS0208AP4-R

## PACKAGING (CONTINUED)

**R****Tape-Reel Packaging for Flush Actuator**

Switches are packaged in OFF position.  
Switches are not available in bulk and must be ordered in the following increments:

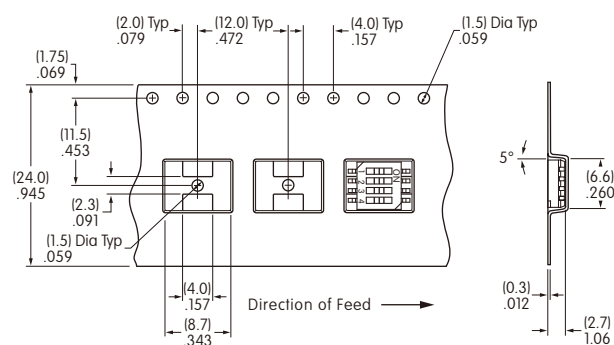
JS0404FP4-R: 2,000 pieces per tape-reel

JS0408FP4-R: 2,000 pieces per tape-reel

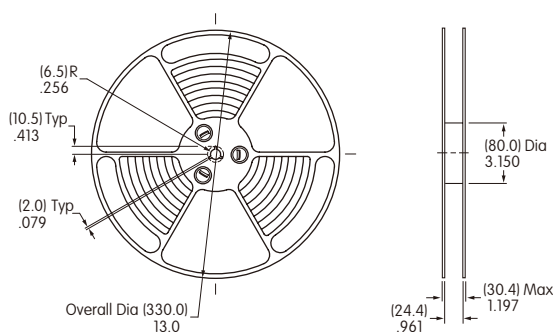
Minimum Leader Length: 15.75" (400mm)

Minimum Trailer Length: 6.3" (160mm)

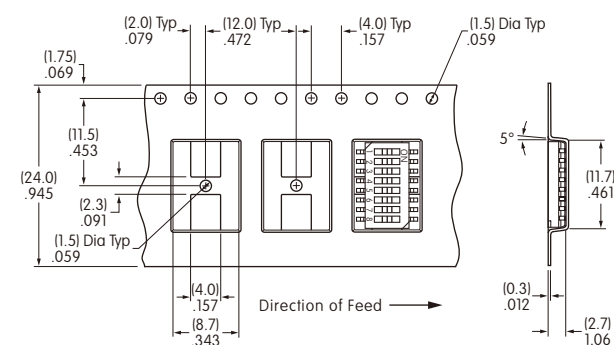
Tape-reel packaging meets EIA-481-D Standard.



Tape Dimensions for JS0404FP4-R



Reel Dimensions for JS0404FP4-R &amp; JS0408FP4-R



Tape Dimensions for JS0408FP4-R