## SERIES 97

Half-Pitch

## FEATURES

- Half the Size of Standard DIP Switches
- Available in 2, 4, 6, 8, and 10 Positions
- Low Profile
- Less Mass for Easy Vacuum Pick \& Place


## APPLICATIONS

Used in any DIP application where space is at a premium such as notebook computers, hand-held radios, industrial control products, CD-ROM drives, cellular base stations and coin changers.


Fig. 1 Series 97C DIMENSIONS In inches (and millimeters)


Fig. 2 Series 97R DIMENSIONS In inches (and millimeters)


## CIRCUITRY


avoid flux adhering to the switch body from the circuit board soldering process. The switch should be allowed to cool for at least 3 minutes between the end of the solder process and the beginning of the wash process. The solvent stage of the cleaning process is not to exceed 1 minute and the whole wash process is not to exceed 3 minutes. Ultrasonic or pressure wash cleaning is not recommended.

## Packaging Information

Tube: $130 \mathrm{pcs} / \mathrm{tube}$ ( 2 positions), $75 \mathrm{pcs} / \mathrm{tube}$ ( 4 positions), $54 \mathrm{pcs} /$ tube ( 6 positions), 40 pcs /tube ( 8 positions), $33 \mathrm{pcs} /$ tube ( 10 positions).
Tape and Reel: 97C: $4,000 \mathrm{pcs} /$ reel (all positions). 97R: $2500 \mathrm{pcs} /$ reel (all positions).

Actuation Instructions: Switch slides should be actuated from a low angle in the intended direction of travel. The application of excess force from a high angle can cause permanent damage to the contact system of the switch. Tape seals must be removed to properly actuate the switches as described above. Click here for visual sample.

All DIP switches are shipped in the "ON" position.

## SPECIFICATIONS

## Electrical Ratings

Contact Rating: 25 mA at 24 Vdc switching; 100 mA at 50 Vdc non-switching
Contact Resistance: $100 \mathrm{~m} \Omega$ max, initially Insulation Resistance: $100 \mathrm{M} \Omega$ minimum at 100 Vdc
Dielectric Strength: 300 Vac for one minute
Switch Capacitance: 5 pF maximum
Contact Arrangement: SPST

## Mechanical Ratings

Life: 1,000 cycles minimum
Operation Force: 500 gF
Mechanical Shock: MIL-STD-202F, Method, 213B, Test Condition A. Gravity: 50G's (peak value), $11 \mathrm{~m} / \mathrm{sec}$. Direction and times: 6 sides and 3 times in each direction.
Vibration: MIL-STD-202F, Method 201A. Passed 6 hours ( 2 hours in each) of three perpendicular planes at a cycle of 10-55$10 \mathrm{~Hz} / 1$ minute.

Operating Temperature Range: -40 to $85^{\circ} \mathrm{C}$
Storage Temperature Range: -40 to $85^{\circ} \mathrm{C}$

## Materials

Base and Cover: UL94V-0 Nylon, black
Actuators: UL94V-0 Nylon thermoplastic, white
Base Contacts: Alloy copper with gold-plating over nickel
Terminals: Brass with gold-plating
Tape Seal: Kapton

## Soldering Information

Vapor phase and IR-reflow soldering can be applied. With stands $255^{\circ} \mathrm{C}$ peak temperature.

Cleaning: Tape sealed versions are capable of withstanding washing processes using alcohol-based solvents only. Water or other water-based solvent washing processes are not recommended. Care should be taken to

## ORDERING INFORMATION

Series: 97C see fig. 1, 97R see fig. 2

Positions: $02=.148(3,76), 04=.248(6,30), 06=.348(8,84)$, $08=.448(11,38), 10=.548(13,92)$
T= RoHS compliant
Packaging: Blank = Tube, R = Tape and Reel (see pkg note) Seal: Blank = Unsealed, S = Top Tape Seal

