

## Side Actuated, Through Hole DIP Switches

### Features

#### Optimized Mechanical Features

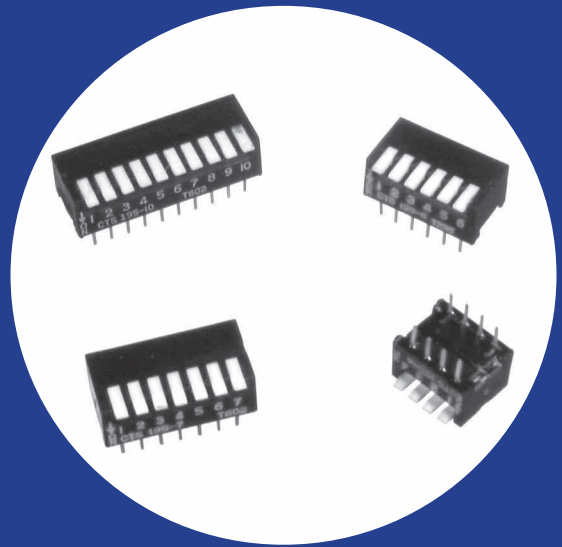
- Enclosed actuators shield contacts from foreign particles throughout life of switch
- Standard 2.54mm (.100") x 7.62mm (.300") DIP centers

#### Optimized Contact System

- Contact wiping action on make and break
- Integral terminal and contact locked into high temperature plastic base
- Lock-over-center design provides positive detent action
- Optimized, active contact design incorporating a dimple-to-flat surface wiping interface with high contact force

#### Materials

- Series 194 - gold plated contacts for long-term contact corrosion resistance
- Series 195 - tin plated contacts
- Tin plated terminals for better solderability
- UL 94V-0 plastics
- RoHS compliant



**Series 194 – Premium Gold Plated Contacts**  
**Series 195 – Economical Tin Plated Contacts**

## Electrical and Mechanical Specifications

### Switch Function

SPST-2 through 10 and 12 positions

### Switch Contact Resistance

| Switch Series | Initial, max. | End of life, max. |
|---------------|---------------|-------------------|
| 194           | 50 milliohms  | 100 milliohms     |
| 195           | 100 milliohms | 500 milliohms     |

### Insulation Resistance

1,000 megohms minimum between insulated terminals

### Dielectric Strength

500 VAC for 1 minute between adjacent switches

### Nonswitching Rating

100 mA or 50 VDC maximum

### Switch Capacitance

5.0 pF maximum between adjacent closed switches

### Operating Temperature

-40°C to +85°C

### Actuation Life

Series 194 – 7,000 cycles switching 50 mA @ 24 VDC

Series 195 – 2,000 cycles switching 50 mA @ 24 VDC

### Allowable Solder Time

Wave soldering up to 5 seconds at 260°C

### Vibration

Per MIL-STD-202F, method 204D, condition B (.06" or 15G'S between 10 HZ to 2K HZ) with no contact inconsistencies greater than 1 microsecond

### Shock

Per MIL-STD-202F, method 213B, condition A (25G'S) with no contact inconsistencies greater than 1 microsecond

### Sealing

Bottom epoxy seal standard  
Top tape seal optional

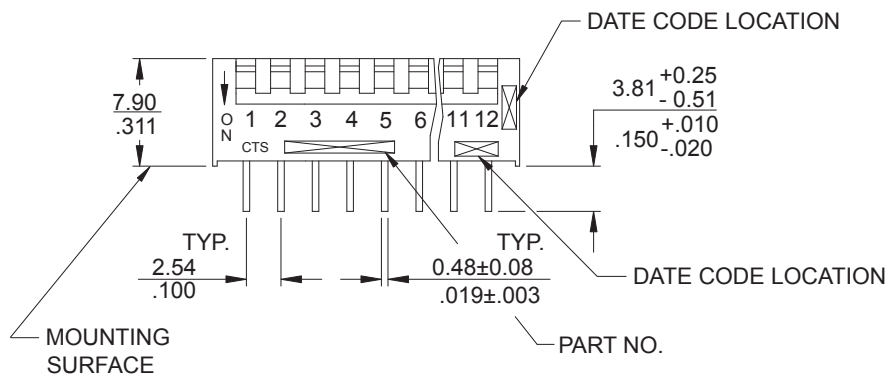
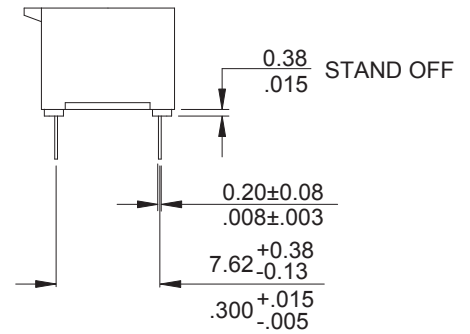
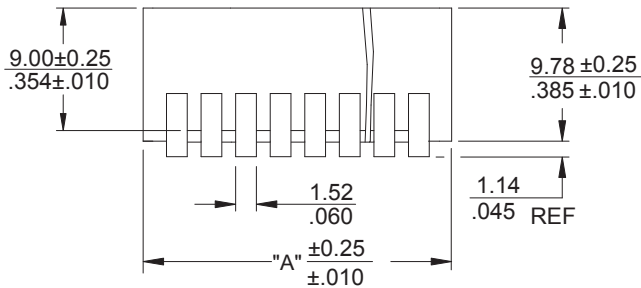
### Marking

Special side or top marking available-consult CTS

### Packaging

Standard : Anti-static tube packaging

## CTS SERIES 194/195



DIMENSION:  $\frac{\text{mm}}{\text{inch}}$

| "A"<br>Overall<br>Dimensions | No. of<br>Switch<br>Positions | Part Number  |
|------------------------------|-------------------------------|--------------|
| 7.26 / .286                  | 2                             | 194/195-2MS  |
| 9.80 / .386                  | 3                             | 194/195-3MS  |
| 12.34 / .486                 | 4                             | 194/195-4MS  |
| 14.88 / .586                 | 5                             | 194/195-5MS  |
| 17.42 / .686                 | 6                             | 194/195-6MS  |
| 19.96 / .786                 | 7                             | 194/195-7MS  |
| 22.50 / .886                 | 8                             | 194/195-8MS  |
| 25.04 / .986                 | 9                             | 194/195-9MS  |
| 27.58 / 1.086                | 10                            | 194/195-10MS |
| 32.66 / 1.286                | 12                            | 194/195-12MS |

## Ordering Information

**194/195 - 10 M S T N**

XX: # OF POSITIONS

M: MEDIUM HEIGHT ACTUATOR  
(1.14mm/.045")

S: BOTTOM EPOXY SEAL

T: TOP TAPE SEAL  
(Ship at ON position only)

BLANK: SHIP AT OFF POSITION  
N: SHIP AT ON POSITION