

## Side Actuated, Through Hole DIP Switches

### Features

#### Optimized Mechanical Features

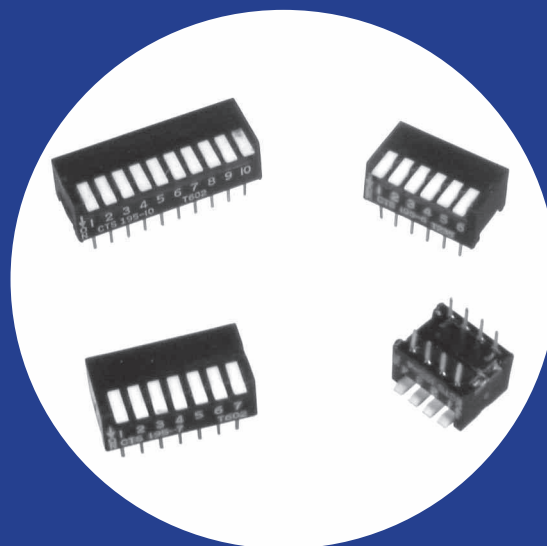
- Enclosed actuators shield contacts from foreign particles throughout life of switch
- Standard 2.54mm (.100") x 7.62mm (.300") DIP centers

#### 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
- All UL 94V-0 plastics used
- 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

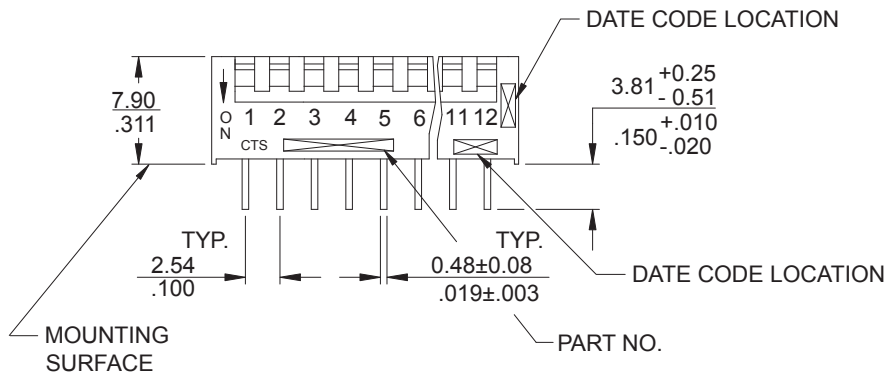
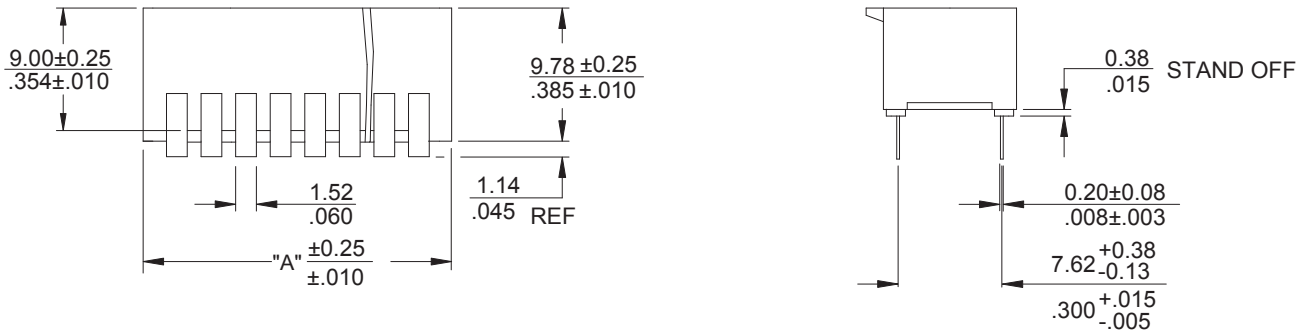
### Marking

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" Overall Dimensions	No. of Switch 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