

# Series 194/195 Data Sheet Through Hole DIP Switch

# Side Actuated, Through Hole DIP Switches

#### **Features**

#### **Optimized Mechanical Features**

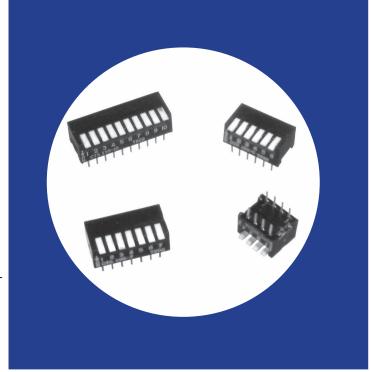
- Enclosed actuators shield contacts from foreign particles throughout life of switch
- Standard 2.54mm (.100") x 7.62mm (.300") DIP centers

#### **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 dimpleto-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
- Optional top tape seal for board spray washing



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 millohms      |
| 195           | 100 milliohms | 500 millohms      |

#### **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

Optional top tape seal for board spray washing

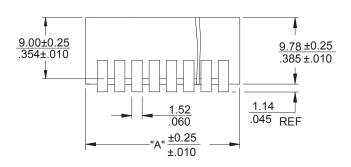
#### Marking

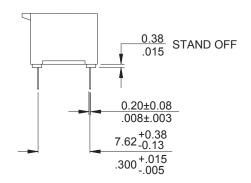
Special side or top marking available-consult CTS

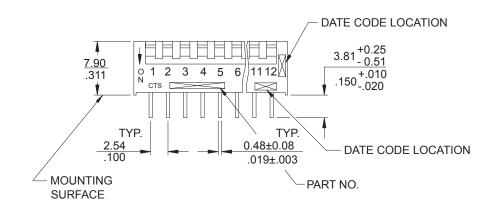
#### **Packaging**

Standard: Anti-static tube packaging

### **CTS SERIES 194/195**







 ${\color{red} {\sf DIMENSION:}} \ \frac{{\color{blue} {\sf mm}}}{{\color{blue} {\sf inch}}}$ 

| "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**

