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Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation, and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!


## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email \& Skype: info@chipsmall.com Web: www.chipsmall.com Address: A1208, Overseas Decoration Building, \#122 Zhenhua RD., Futian, Shenzhen, China

## Series 194/195Data Sheett 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 2.54 mm (.100") x 7.62 mm (.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
- 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

$-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$

## Actuation Life

Series $194-7,000$ cycles switching $50 \mathrm{~mA} @ 24$ VDC
Series 195 - 2,000 cycles switching 50 mA @ 24 VDC

## Allowable Solder Time

Wave soldering up to 5 seconds at $260^{\circ} \mathrm{C}$

## Vibration

Per MIL-STD-202F, method 204D, condition B
(.06" or 15 G 'S between 10 HZ to 2 K 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



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

## Ordering Information



N : SHIP AT ON POSITION

