

Surface Mount DIP Switch — Auto Placeable

Features

Optimized Mechanical Features

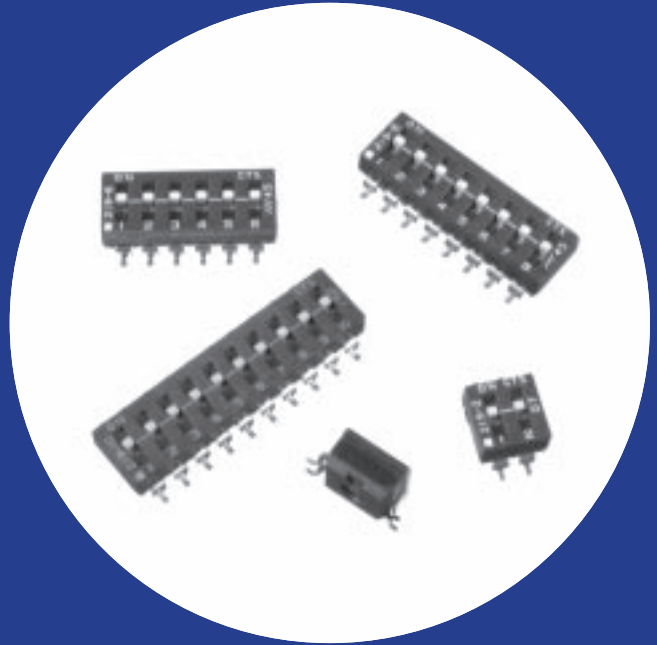
- Removable tape seal to withstand IR vapor phase or wave soldering temperatures, and board washing
- Positive detent separate from contactor
- Available low profile, medium, and extended height actuators
- Gull-wing and "J" lead terminal configurations
- Tube or tape and reel packaging available

Optimized Contact System

- Redundant, wiping contact
- Contactor does not deflect during actuation

Premium Materials

- Gold plated beryllium copper contacts
- All plastic rated UL 94 V-0
- High temperature body and actuator materials
- RoHS compliant



Electrical and Mechanical Specifications

Switch Function

SPST- 2 through 10 and 12 positions

Switch Contact Resistance

25 milliohms maximum initial
50 milliohms maximum at the end of life

Insulation Resistance

1,000 megohms minimum between insulated terminals

Dielectric Strength

500 VDC for 1 minute between adjacent switches

Nonswitching Rating

100 mA or 50 VDC maximum

Switch Capacitance

5 pF maximum between adjacent closed switches

Operating Temperature

- 55°C to +85°C

Actuation Life

2,000 cycles switching 100 mA @ 20 VDC or
0.1 mA @ 5 VDC (dry circuit)

Coplanarity

0.10mm (.004") maximum

Allowable Solder Time

Up to 60 seconds at 260°C

Vibration

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

Shock

Per MIL-STD-202F, method 213B, condition A (50 G's) with no contact inconsistencies greater than 1 microsecond.

Sealing

Standard bottom seal
Optional top tape seal

Marking

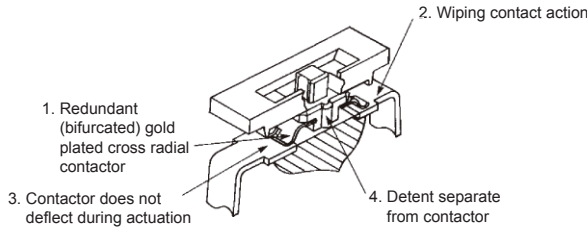
Special marking available consult CTS.

Packaging

Standard : Anti-static tube packaging
Optional : Tape and reel packaging

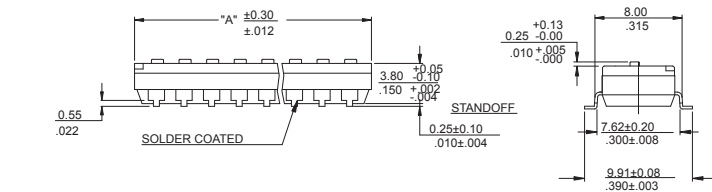
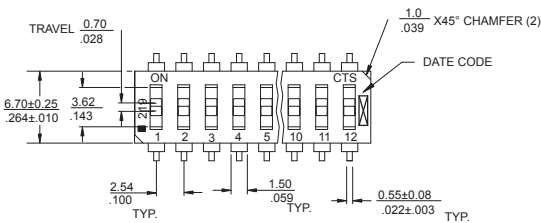
CTS SERIES 219 SMT CONTACT FEATURES

1. Value of Redundant (Bifurcated) Gold Plated Contacts: Redundancy dramatically reduces the probability of contact failure while gold contact material provides the highest environmental protection, IMPROVING RELIABILITY.
2. Value of Wiping Contact Action: Clean contact area, IMPROVING RELIABILITY.
3. Value of Contactor Not Deflecting During Actuation: Constant contact pressure eliminates overstressing contacts, IMPROVING RELIABILITY.
4. Value of Detent Separate from Contactor: Separate detent allows optimization of nondeflecting contactor and detent designs, IMPROVING RELIABILITY.

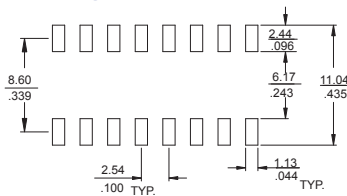


"A" Overall Dimension	No. of Switch positions
6.55/.258	2
9.09/.358	3
11.63/.458	4
14.17/.558	5
16.71/.658	6
19.25/.758	7
21.79/.858	8
24.33/.958	9
26.87/1.058	10
31.95/1.258	12

Gull Wing Terminals Medium Height Actuator

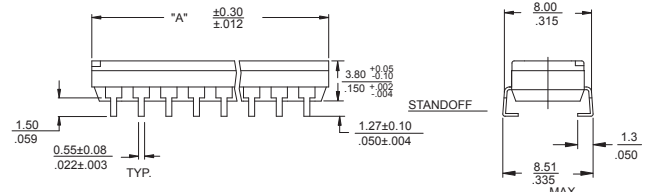
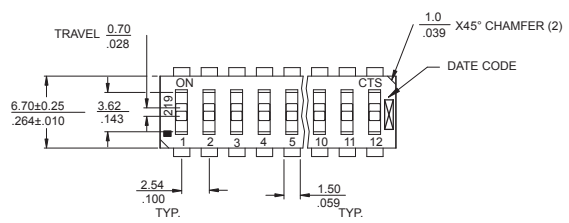


Gull Wing Surface Mount Pad Layouts

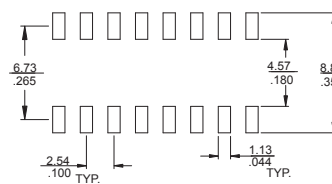


DIMENSION: $\frac{\text{mm}}{\text{inch}}$

"J" Bend Terminals Low Profile Actuator



"J" Bend Surface Mount Pad Layouts



Ordering Information

219 - 12 LP S T J R F

XX: NO. OF POSITIONS

E: EXTENDED HEIGHT ACTUATOR(0.60mm/.024")
M: MEDIUM HEIGHT ACTUATOR(0.25mm/.010")
LP: LOW PROFILE ACTUATOR(Flush)

BLANK: SHIP AT ON POSITION
F: SHIP AT OFF POSITION

BLANK: ANTI-STATIC TUBE PACKAGING
R: TAPE AND REEL PACKAGING

BLANK: GULL-WING TERMINAL

J: "J" BEND TERMINAL

BLANK: NO TOP TAPE SEAL

* **T:** TOP TAPE SEAL

* Not available on extended actuator

S: BOTTOM SEAL