

Surface Mount DIP Switch — Auto Placeable

Features

Optimized Mechanical Features

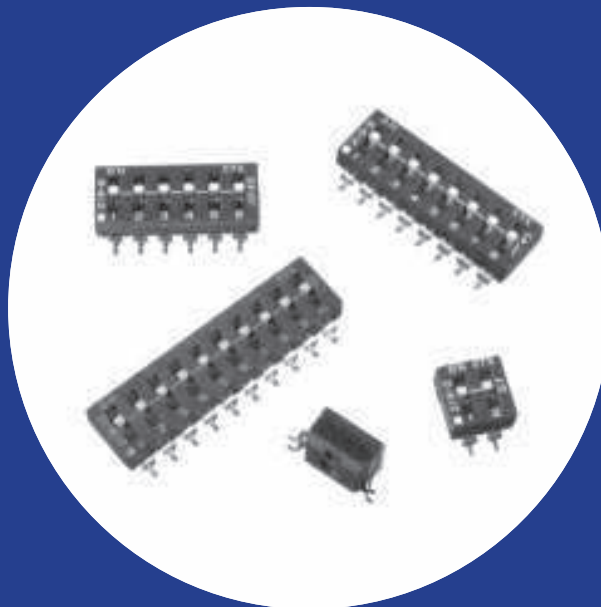
- Removable tape seal to withstand IR vapor phase or wave soldering temperatures, and board washing
- Positive detent separate from contactor
- Available low profile, medium and high height actuators
- Gull-wing and "J" lead terminal configurations
- Tube or tape and reel packaging available

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 Storage

500 VDC minimum 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

IR and Vapor Phase - up to 51 seconds at 260°C
Wave - up to 5 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

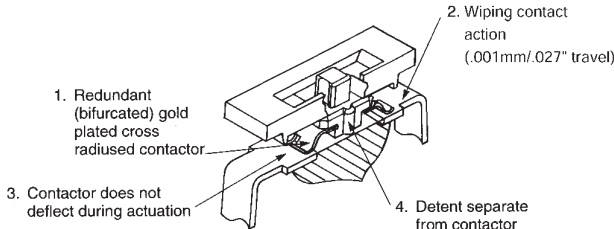
Special marking available consult CTS.

Packaging

Standard : Anti-Static tube Packaging
Optional : Tape and Reel Packaging

CTS SERIES 219 SMT CONTACT FEATURES

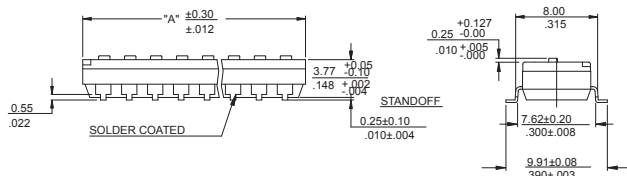
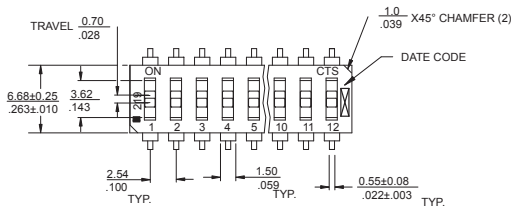
1. Value of Redundant (Bifurcated) Gold Plated Contacts: Redundancy dramatically reduces the probability of contact failure while gold contact material provides the highest environmental protection, IMPROVING RELIABILITY.
2. Value of Wiping Contact Action: Cleans contact area, IMPROVING RELIABILITY.
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.



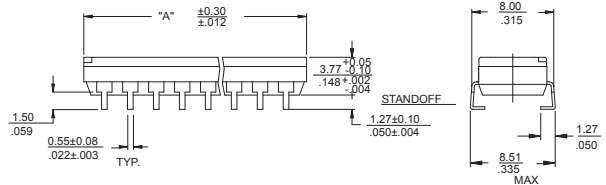
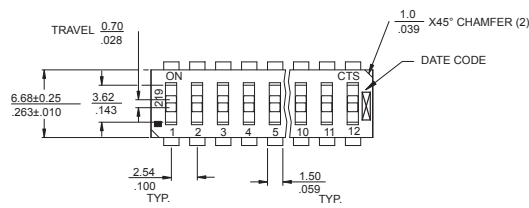
"A" Overall Dimension	No. of Switch positions
6.55/.258	2
9.09/.358	3
11.63/.458	4
14.17/.558	5
16.71/.658	6
19.25/.758	7
21.79/.858	8
24.33/.958	9
26.87/1.058	10
31.95/1.258	12

* For "J" bend terminal configurations, add the letter "J" to part number ie 219-2MSTJ or 219-2LPSTJ.

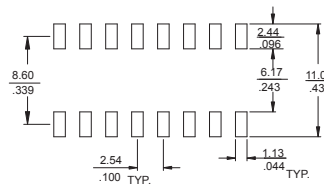
Gull Wing Terminals Medium Height Actuator



"J" Bend Terminals Low Profile Actuator

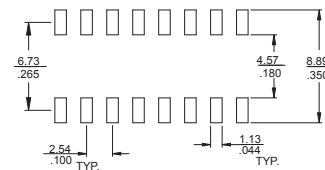


Gull Wing Surface Mount Pad Layouts



DIMENSION: mm / inch

"J" Bend Surface Mount Pad Layouts



Ordering Information

219 - 12 LP S T J R F - P

XX: # OF POSITIONS

E: EXTENDED HEIGHT ACTUATOR(0.60mm/.024")
M: MEDIUM HEIGHT ACTUATOR(0.24mm/.010")
LP: LOW PROFILE ACTUATOR(Flush)

T: TOP TAPE SEAL
S: BOTTOM SEAL (Standard)

J: "J" BEND TERMINAL(Optional)
R: TAPE AND REEL PACKAGING(Optional)
F: SHIP AT OFF POSITION
BLANK: SHIP AT ON POSITION
P: RoHS COMPLIANT
BLANK: RoHS COMPLIANT FOR SHIPMENT FROM 7/01/06