

# Series 219 Data Sheet SMD DIP Switch

# Surface Mount DIP Switch — Auto Placeable

#### **Features**

#### **Optimized Mechanical Features**

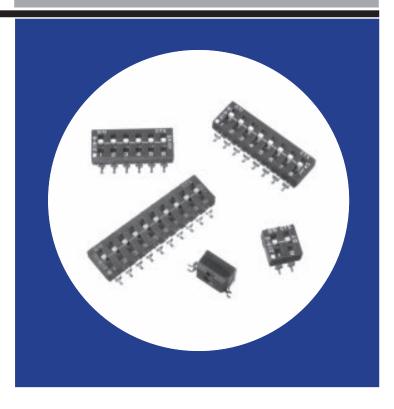
- Removable tape seal to withstand IR vapor phase or wave soldering temperatures, and board washing
- Positive detent separate from contactor
- Available low profile, medium, and extended height actuators
- Gull-wing and "J" lead terminal configurations
- Tube or tape and reel packaging available

#### **Optimized Contact System**

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

#### Premium Materials

- Gold plated beryllium copper contacts
- High temperature materials (UL94V-0)
- 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

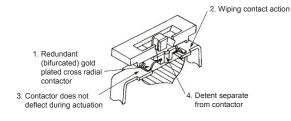
Special marking available consult CTS.

#### Packaging

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

### **CTS SERIES 219 SMT CONTACT FEATURES**

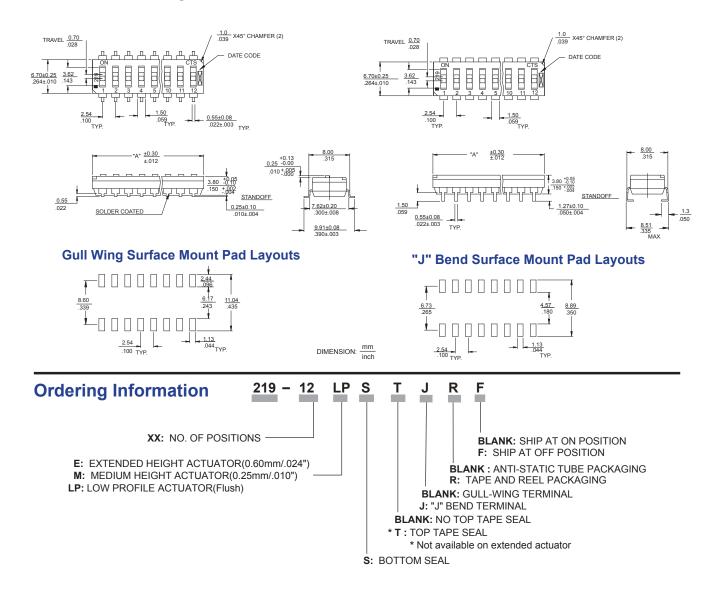
- Value of Redundant (Bifurcated) Gold Plated Contacts: Redundancy dramatically reduces the probability of contact failure while gold contact material provides the highest environmental protection, IMPROVING RELIABILITY.
- 2. Value of Wiping Contact Action: Clean contact area, IMPROVING RELIABILITY.
- 3. Value of Contactor Not Deflecting During Actuation: Constant contact pressure eliminates overstressing contacts, IMPROVING RELIABILITY.
- 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

#### "J" Bend Terminals Low Profile Actuator



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