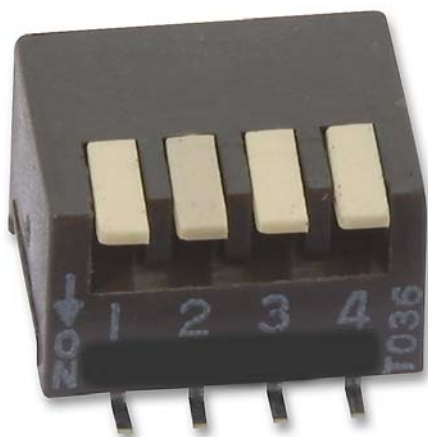


193-xMS-P Series

Piano Style SPST DIP Switches



Optimized Mechanical Features:

- Coplanarity: 0.1mm/0.004" maximum.
- Compatible with SMT assembly including IR and vapour phase (up to 260°C).
- Enclosed actuators shield contacts from foreign particles throughout life of switch.
- Gull-wing terminal configuration.
- SPST configurations, 2 through 10 and 12 positions.
- Tube Packaging.

Optimized Contact System:

- Contact wiping action on make and break.
- Over center design provides positive detent action.
- Optimized, active contact design incorporating dimple-to-flat surface wiping interface with high contact force.

Materials:

- Gold plated, copper alloy contacts.
- Solder coated terminals
- High temperature body and actuator materials (UL 94V-0).

Electrical and Mechanical Specifications:

Switch Function	: Single pole single throw.
Switch Contact Resistance	: 50 milliohms maximum initial 100 milliohms maximum at end of life.
Insulation Resistance	: 1,000 megohms minimum across open switch 1,000 megohms minimum between adjacent closed switches.
Dielectric Strength	: 500V ac minimum for 1 minute between adjacent switches.
Nonswitching Rating	: 100mA or 50V dc.
Switch Capacitance	: 5.0pF maximum between adjacent closed switches.
Operating Temperature	: -40°C to +85°C.
Actuation Life	: 7,000 cycles switching 50mA at 24V dc.
Allowable Solder Time	: IR and Vapour Phase : Up to 60 seconds at 260°C : Wave : Up to 6 seconds at 260°C.
Vibration	: No mechanical damage or changes of switch settings during or after testing, when tested in three mutually perpendicular planes at 10-50Hz sweep or at 60Hz constant vibration.
Shock	: No mechanical damage or changes of switch settings with 25G applied.
Sealing	: Bottom epoxy seal standard.
Marking	: Special side or top marking available.

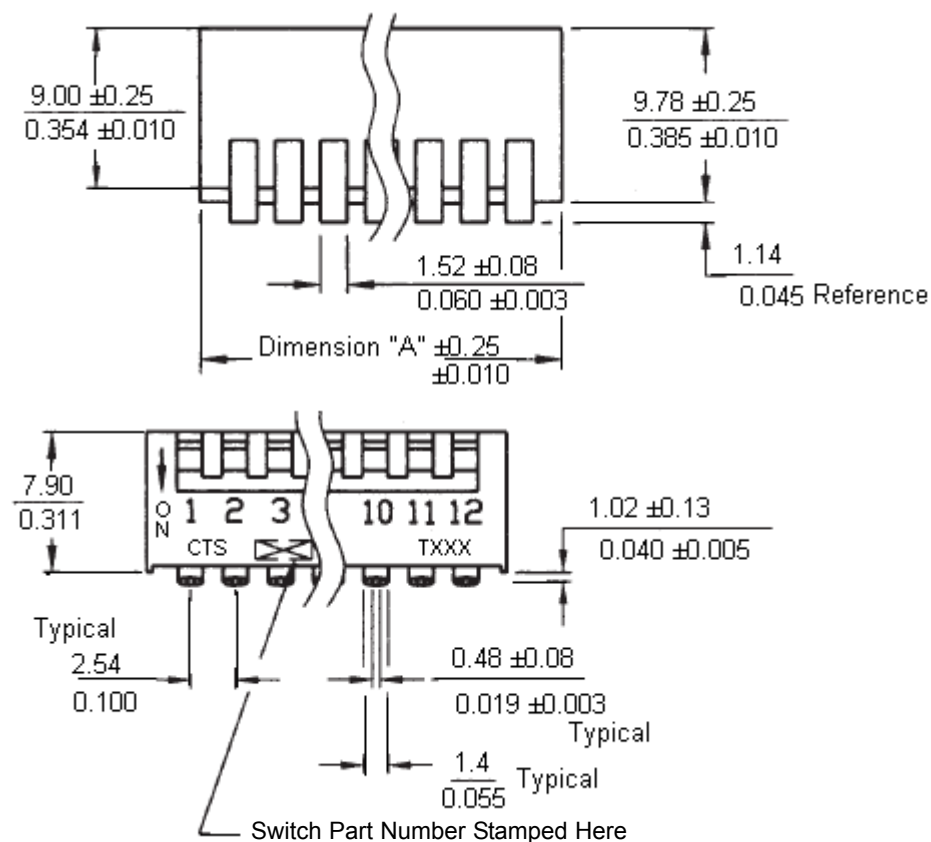


193-xMS-P Series

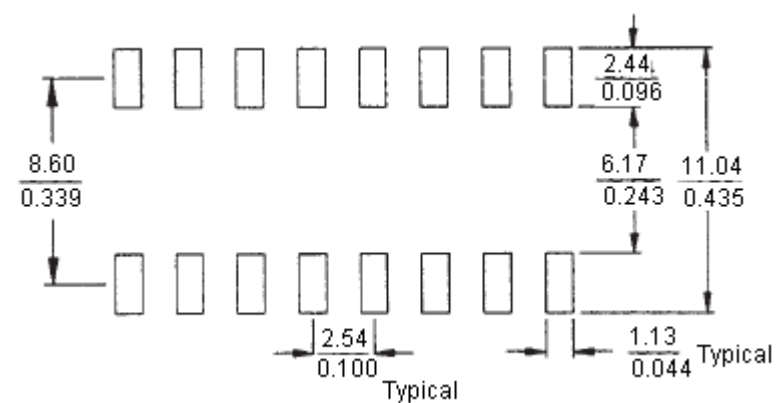
Piano Style SPST DIP Switches



Medium Length Actuator



Surface Mount Pad Layouts



Dimensions : Millimetres/Inches

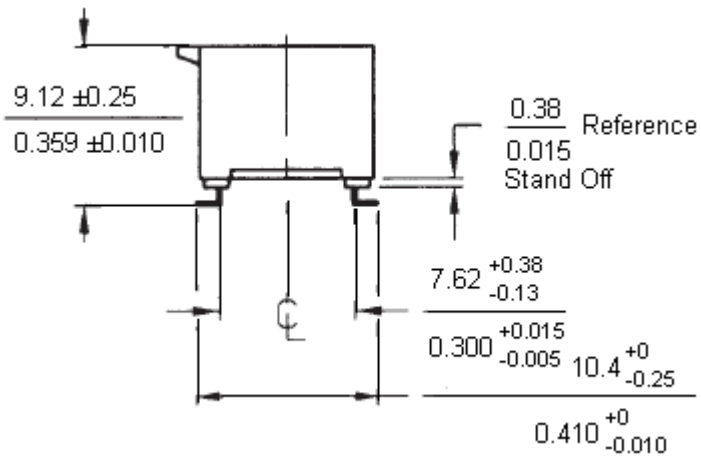


193-xMS-P Series

Piano Style SPST DIP Switches



Surface Mount Pad Layouts



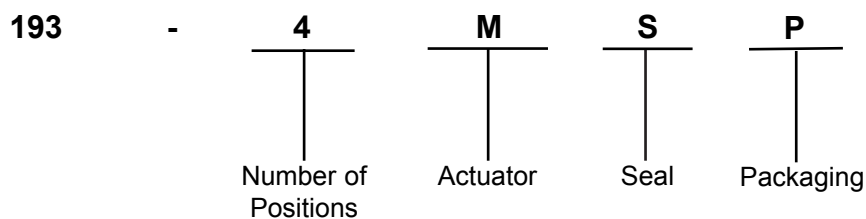
Dimensions : Millimetres/Inches

Specification Table

Overall Dimension (A)	Number of Switch Sections	Part Number
12.34 (0.486)	4	193-4MS-P
17.42 (0.686)	6	193-6MS-P
22.50 (0.886)	8	193-8MS-P

Dimensions : Millimetres (Inches)

Part Number Explanation:



Number of Positions : 4, 6 and 8 Position.
Actuator : Medium Length Actuator.
Seal : Bottom Epoxy Seal.
Packaging : Tube.



193-xMS-P Series

Piano Style SPST DIP Switches



Notes:

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