

# Series 206/208 DIP Technical Data

# Multifunctional through hole DIP switches

#### **Features**

#### **Optimized Mechanical Features**

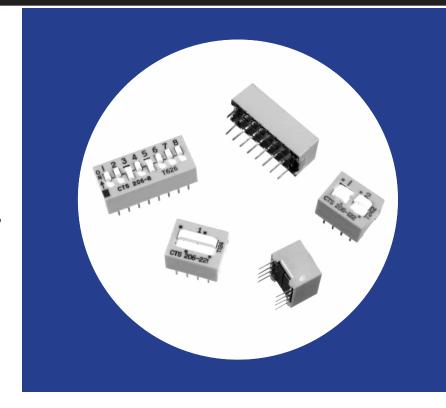
- Series 206 SPST, SPDT, DPST, DPDT, 3PST or 4PST circuitry choices
- Series 206 and Series 208 SPST available in 2 through 10 and 12 positions
- Standard 2.54mm (.100") x 7.62mm (.300") DIP centers
- Available with flush actuators for low profile SPST applications
- Sealed version optional; assures contaminant-free switch operation after flow soldering and cleaning

#### **Optimized Contact System**

- Contact wiping on make and break
- Integral terminal and contact locked into thermoset base
- · Electrostatic discharge shield rated to 22 KV

#### Materials

- Series 206 gold-plated contacts for long-term contact corrosion resistance
- · Series 208 tin-lead contacts
- · All U.L. 94 V-0 plastics used



Series 206 – Premium Gold Plated Contacts
Series 208 – Economical Tin-Lead Plated Contacts

# **Electrical and Mechanical Specifications**

#### **Switch Function**

Series 206 and 208 single pole single throw

Series 206 - single pole double throw

- double pole single throw
- double pole double throw
- 3 pole single throw
- 4 pole single throw

#### **Switch Contact Resistance**

Switch Series	Initial, max.	End of life, max.	
206	50 milliohms	100 millohms	
208	100 milliohms	500 millohms	

#### **Insulation Resistance**

1,000 megohms minimum across open switch

1,000 megohms minimum between adjacent closed switches

#### **Dielectric Strength**

500 VAC minimum for 1 minute between adjacent switches

#### Nonswitching Rating

100 mA or 50 VDC

#### Switch Capacitance

5.0 pF maximum between adjacent switches

#### **Operating Temperature**

–55°C to +85°C

#### **Actuation Life**

Series 206: 10,000 cycles switching

50 mA @ 24 VDC

Series 208: 2,000 cycles switching

50 mA @ 15 VDC

#### **Allowable Solder Time**

Up to 4 seconds with 260°C solder

#### **Vibration**

Per MIL-STD-202F, method 204D, condition B with no contact inconsistencies greater than 1 microsecond

#### Shock

Per MIL-STD-202F, method 213B, condition A with no contact inconsistencies greater than 1 microsecond

#### Sealing

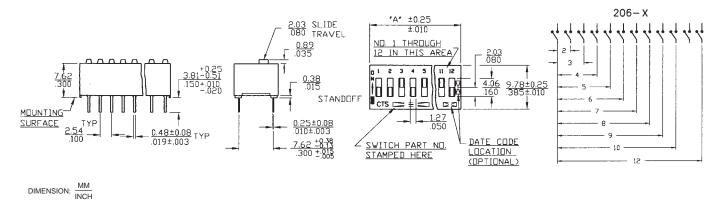
Bottom epoxy seal optional Top tape seal optional

#### Marking

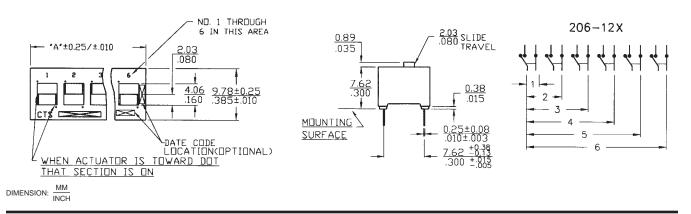
Special side or top marking available-consult CTS

Technical Data Sheet 4206D

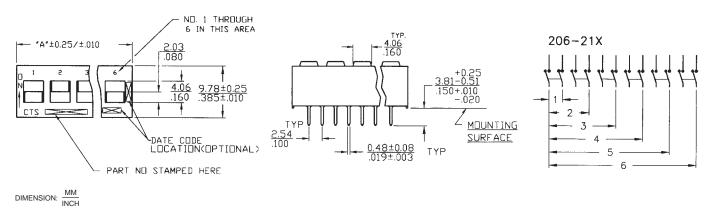
#### SPST - Series 206 and Series 208



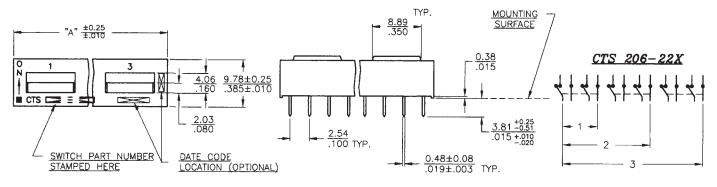
#### SPDT - Series 206



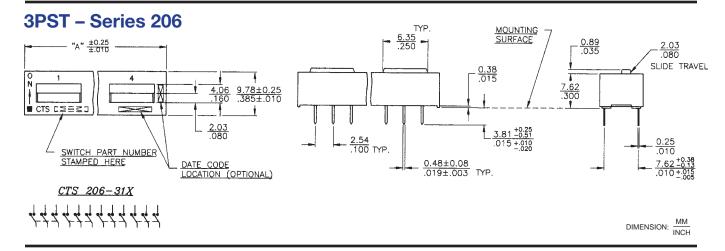
#### **DPST - Series 206**



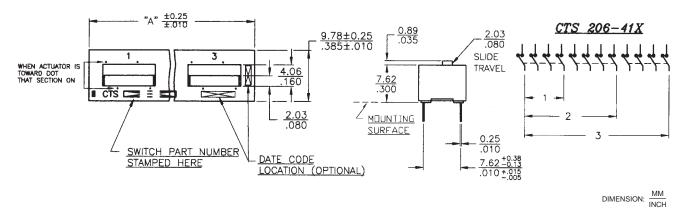
#### **DPDT - Series 206**



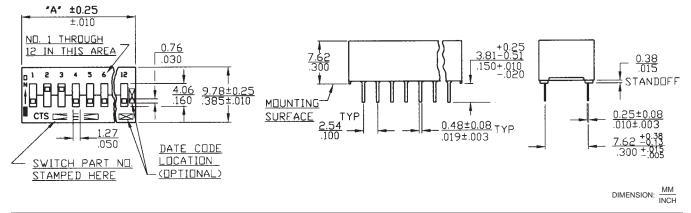
DIMENSION:  $\frac{MM}{INCH}$ 



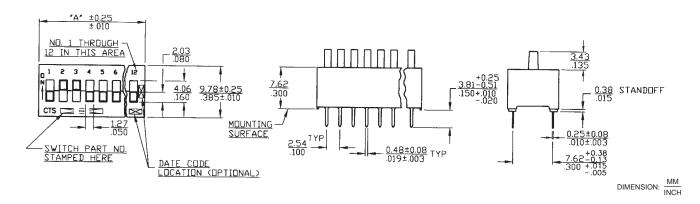
#### 4PST - Series 206



# Low Profile Actuators - Series 206 and Series 208, SPST



# **Extended Actuators - Series 206, SPST**



## **Part Numbering Information**

XXX — X X X XX
Series 206 Number of Throws

Number of Poles Positions

Actuator Length
LP — Low Profile
Option on SPST 206/208 product
E — Extended Length
Option on SPST 206 product

OPTIONS

S

Bottom Epoxy Seal

Available on all 206/208 product

Top Tape Seal
Available with all standard or low profile actuators

## **Ordering Information**

"A" Overall Dimensions	Number of Switch Sections	Actuation	Part Number	Both Bottom and Top Sealed	Low Profile Both Bottom and Top Sealed
7.26 / .286 9.80 / .386 12.34 / .486 14.88 / .586 17.42 / .686 19.96 / .786 22.50 / .886 25.04 / .986 27.58 / 1.086 32.66 / 1.286	2 3 4 5 6 7 8 9 10	SPST SPST SPST SPST SPST SPST SPST SPST	206/208-2 206/208-3 206/208-4 206/208-5 206/208-6 206/208-7 206/208-8 206/208-9 206/208-10 206/208-12	206/208-2ST 206/208-3ST 206/208-4ST 206/208-5ST 206/208-6ST 206/208-7ST 206/208-8ST 206/208-9ST 206/208-10ST 206/208-12ST	206/208-2LPST 206/208-3LPST 206/208-4LPST 206/208-5LPST 206/208-6LPST 206/208-7LPST 206/208-8LPST 206/208-9LPST 206/208-10LPST 206/208-12LPST
7.26 / .286	1	SPDT	206-121	206-121ST	
12.34 / .486	2	SPDT	206-122	206-122ST	
17.42 / .686	3	SPDT	206-123	206-123ST	
22.50 / .886	4	SPDT	206-124	206-124ST	
27.58 / 1.086	5	SPDT	206-125	206-125ST	
32.66 / 1.286	6	SPDT	206-126	206-126ST	
7.26 / .286 12.34 / .486 17.42 / .686 22.50 / .886 27.58 / 1.086 32.66 / 1.286	1 2 3 4 5 6	DPST DPST DPST DPST DPST DPST DPST	206-211 206-212 206-213 206-214 206-215 206-216	206-211ST 206-212ST 206-213ST 206-214ST 206-215ST 206-216ST	
12.34 / .486	1	DPDT	206-221	206-221ST	
22.50 / .886	2	DPDT	206-222	206-222ST	
32.66 / 1.286	3	DPDT	206-223	206-223ST	
9.80 / .386	1	3PST	206-311	206-311ST	
17.42 / .686	2	3PST	206-312	206-312ST	
25.04 / .986	3	3PST	206-313	206-313ST	
32.66 / 1.286	4	3PST	206-314	206-314ST	
12.34 / .486	1	4PST	206-411	206-411ST	
22.50 / .886	2	4PST	206-412	206-412ST	
32.66 / 1.286	3	4PST	206-413	206-413ST	

#### **Order From:**

CTS CORPORATION, ELECTROCOMPONENTS / 1601 Mishawaka Street / Elkhart, Indiana 46514 North America Toll Free (888) 287-4690 / (219) 296-6700 / FAX: (219) 293-1240 http://www.ctscorp.com