

# Distinctive Characteristics

Subminiature size (1/3 size of Series M switches) saves space on PC boards.

Specifically developed for logic-level applications.

Totally sealed body construction prevents contact contamination and allows time- and money-saving automated soldering and cleaning.

Award-winning STC contact mechanism with benefits unavailable in conventional mechanisms: smoother, positive detent actuation, increased contact stability and unparalleled logic-level reliability. (Additional STC details in Terms & Acronyms; see Supplement section.)

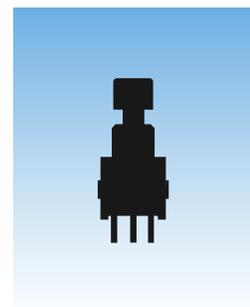
Molded-in, epoxy sealed or ultrasonically welded terminals lock out flux, solvents, and other contaminants.

.100" x .100" (2.54mm x 2.54mm) terminal spacing conforms to standard PC board grid spacing.

Matching indicators available and shown at the end of Section M.



Actual Size



# General Specifications

## Electrical Capacity (Resistive Load)

**Logic Level:** 0.4VA maximum @ 28V AC/DC maximum  
 (Applicable Range 0.1mA ~ 0.1A @ 20mV ~ 28V)  
 Note: Find additional explanation of operating range in Supplement section.

## Other Ratings

**Contact Resistance:** 50 milliohms maximum  
**Insulation Resistance:** 500 megohms minimum @ 500V DC  
**Dielectric Strength:** 500V AC minimum for 1 minute minimum  
**Mechanical Life:** 50,000 operations minimum  
**Electrical Life:** 50,000 operations minimum  
**Nominal Operating Force:** 2.55N  
**Contact Timing:** Nonshorting (break-before-make)  
**Travel:** Pretravel .028" (0.7mm); Overtravel .016" (0.4mm); Total Travel .043" (1.1mm)

## Materials & Finishes

**Plunger:** Polyacetal  
**Case Housing:** Glass fiber reinforced polyamide  
**Support Bracket:** Tin plated phosphor bronze  
**Movable Contact:** Phosphor bronze with gold plating  
**Stationary Contacts:** Brass with gold plating  
**Terminals:** Brass with gold plating

## Environmental Data

**Operating Temp Range:** -30°C through +85°C (-22°F through +185°F)  
**Humidity:** 90 ~ 95% humidity for 96 hours @ 40°C (104°F)  
**Vibration:** 10 ~ 55Hz with peak-to-peak amplitude of 1.5mm traversing the frequency range & returning in 1 minute; 3 right angled directions for 2 hours  
**Shock:** 50G (490m/s<sup>2</sup>) acceleration (tested in 6 right angled directions, with 5 shocks in each direction)

## Installation

**Cap Installation Force:** 49.03N (11.2 lbf) maximum downward force on actuator

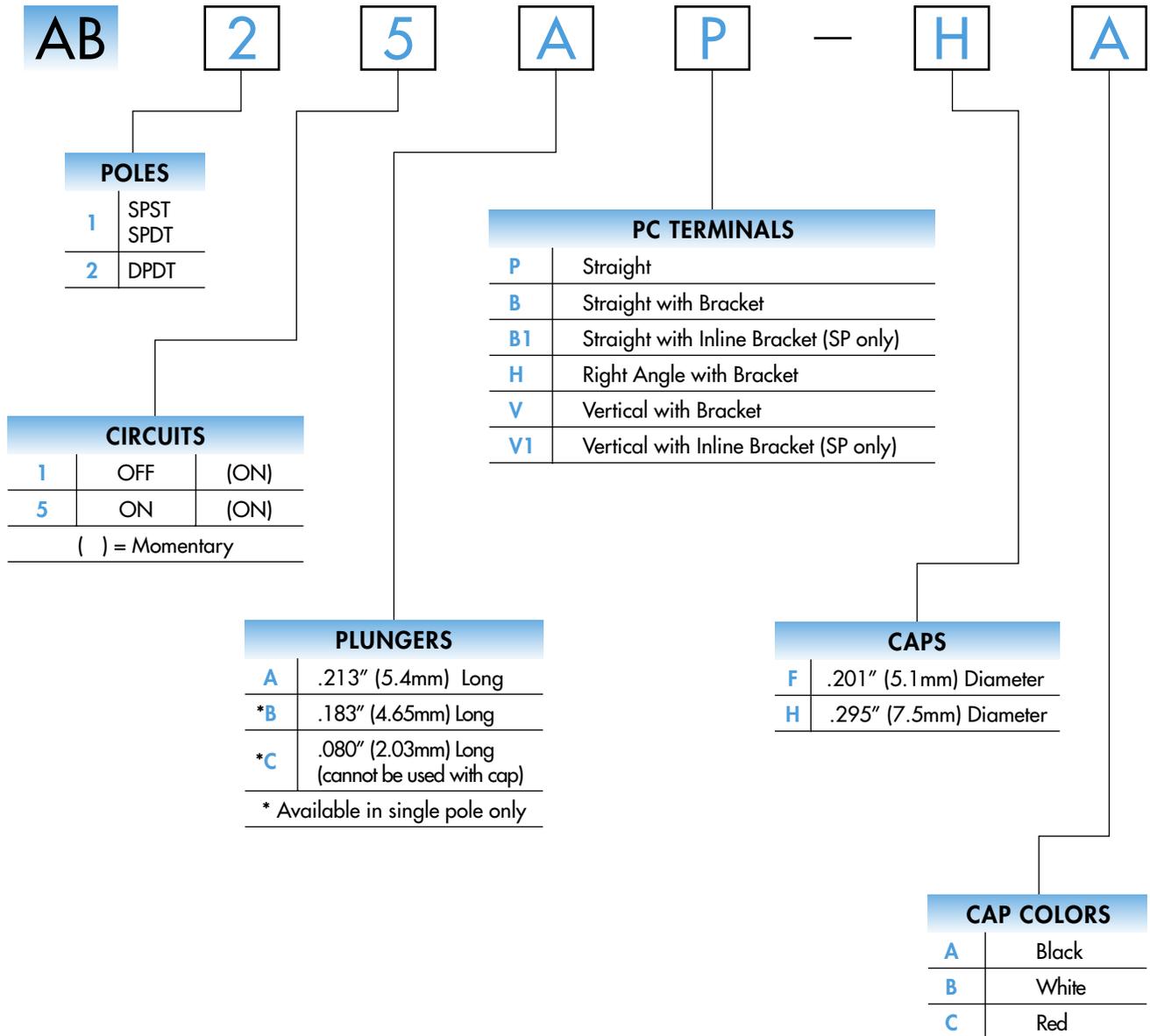
## PCB Processing

**Soldering:** Wave Soldering Recommended: See Profile A in Supplement section.  
 Manual Soldering: See Profile B in Supplement section.  
**Cleaning:** Automated cleaning. See Cleaning specifications in Supplement section.

## Standards & Certifications

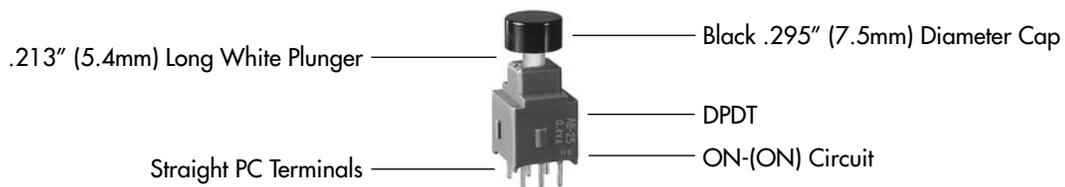
**UL Recognition or CSA Certification:** The AB Series pushbuttons have not been tested for UL recognition or CSA certification. These switches are designed for use in a low-voltage, low-current, logic-level circuit. When used as intended in a logic-level circuit, the results do not produce hazardous energy.

### TYPICAL SWITCH ORDERING EXAMPLE

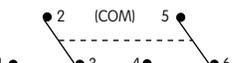


### DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

#### AB25AP-HA



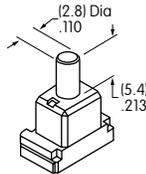
### POLES & CIRCUITS

Pole	Model	Plunger Position ( ) = Momentary		Connected Terminals		Throw & Schematics
		Normal 	Down 	Normal 	Down 	
SP	<b>AB11</b>	OFF	(ON)	OPEN	3-1	SPST 
SP	<b>AB15</b>	ON	(ON)	2-3	2-1	SPDT 
DP	<b>AB25</b>	ON	(ON)	2-3 5-6	2-1 5-4	DPDT 

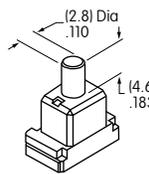
Note: Terminal numbers are not actually on the switch.

### PLUNGERS

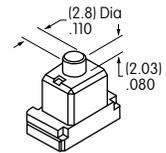
**A** .213" (5.4mm)  
Long



**B** .183" (4.6mm)  
Long  
(on SP only)



**C** .080" (2.03mm)  
Long  
(on SP only)

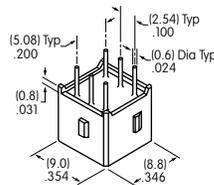


Standard Plunger Color: White

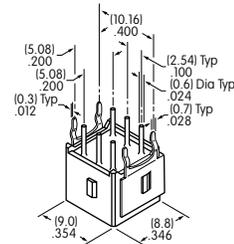
Contact factory for red or black options.

### PC TERMINALS

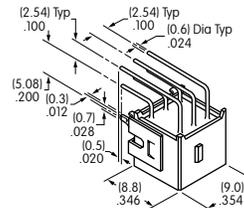
**P** Straight



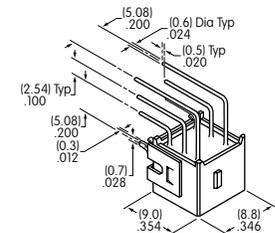
**B** Straight  
with Bracket



**H** Right Angle  
with Bracket



**V** Vertical  
with Bracket



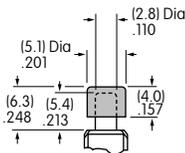
Use of a support bracket is recommended to increase PCB mounting strength and stability.  
B1 & V1 terminal dimensions appear on the pushbutton drawings which follow.

### SLIP-ON CAPS

**F** AT475  
.201" (5.1mm) Diameter Cap

Material: Polyamide

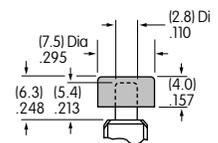
For use with  
plungers A & B only.



**H** AT496  
.295" (7.5mm) Diameter Cap

Material: Polyamide

For use with  
plungers A & B only.



Colors Available:

**A** Black

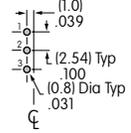
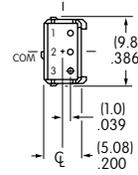
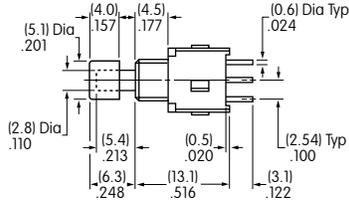
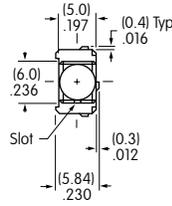
**B** White

**C** Red

### TYPICAL SWITCH DIMENSIONS

#### Straight PC

#### Single Pole

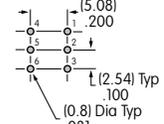
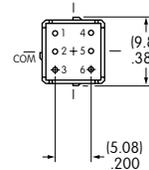
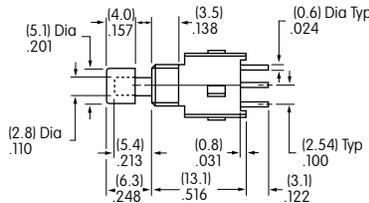
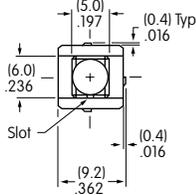


AB15AP-FA

AB11 model does not have terminal 2.

#### Straight PC

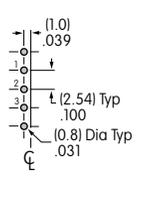
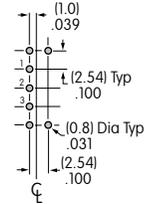
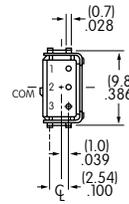
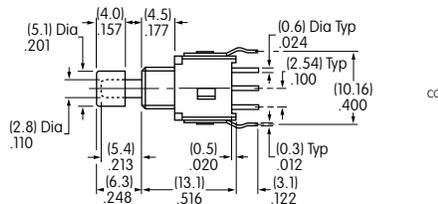
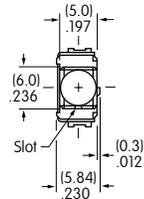
#### Double Pole



AB25AP-FA

#### Straight PC • Bracket

#### Single Pole



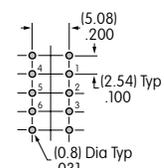
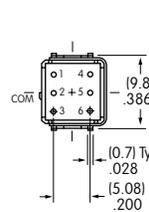
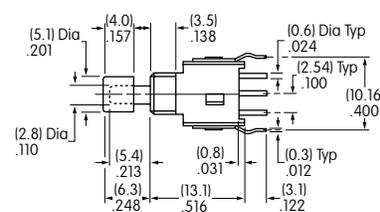
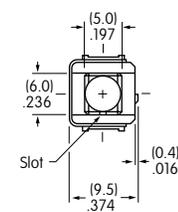
AB15AB-FA

B Terminals

B1 Terminals

#### Straight PC • Bracket

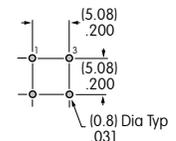
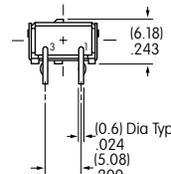
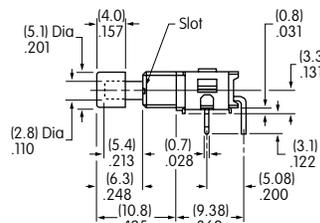
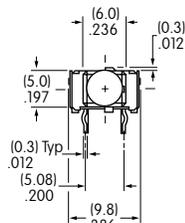
#### Double Pole



AB25AB-FA

#### Right Angle PC

#### Single Pole (Single Throw)

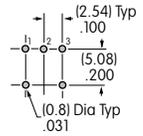
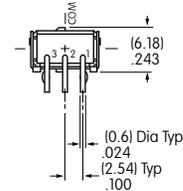
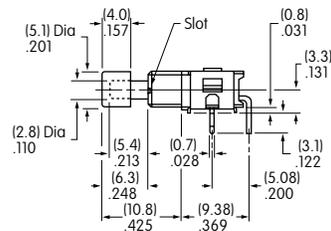
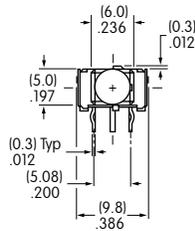


AB11AH-FA

### TYPICAL SWITCH DIMENSIONS

#### Right Angle PC

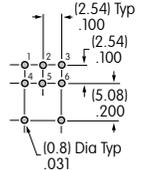
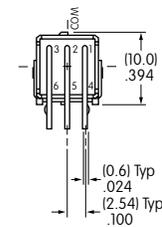
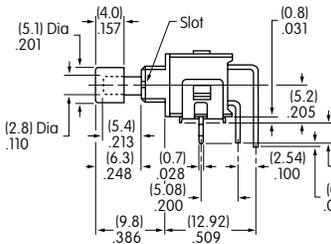
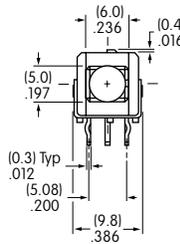
#### Single Pole (Double Throw)



AB15AH-FA

#### Right Angle PC

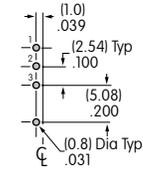
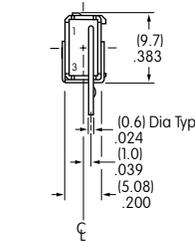
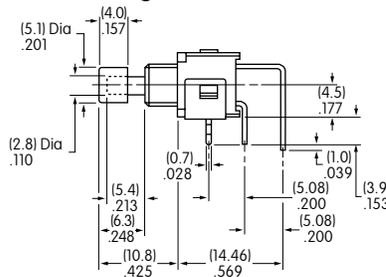
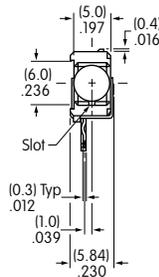
#### Double Pole



AB25AH-FA

#### Vertical PC • Inline Bracket

#### Single Pole

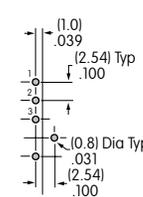
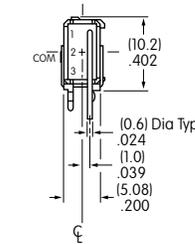
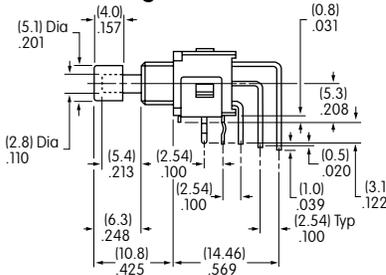
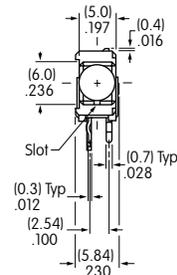


AB11AV1-FA

AB11 model does not have terminal 2.

#### Vertical PC

#### Single Pole

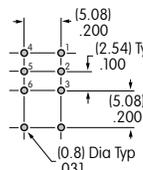
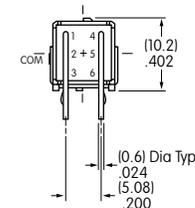
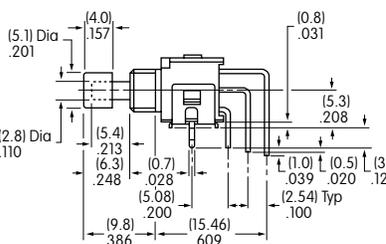
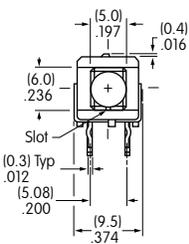


AB15AV-FA

AB11 model does not have terminal 2.

#### Vertical PC

#### Double Pole



AB25AV-FA