

# 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

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.

## Distinctive Characteristics

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

Specifically developed for logic-level applications.

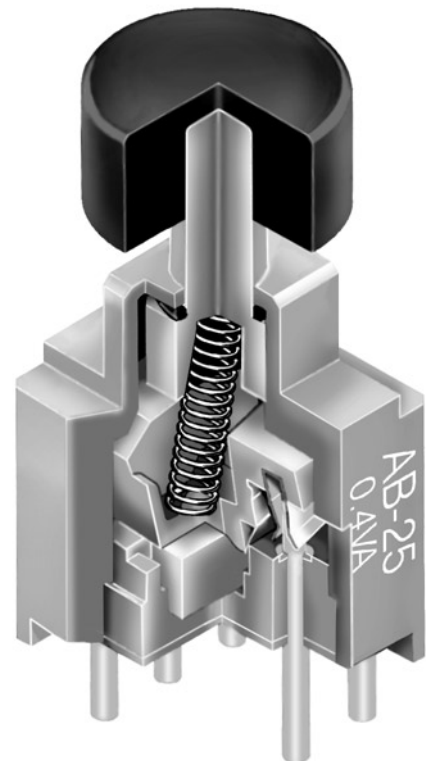
Totally sealed body construction prevents contact contamination and allows time- and money-saving automated soldering and cleaning.

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.)

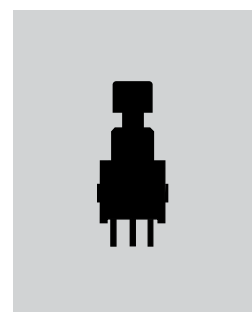
Molded-in, epoxy sealed or ultrasonically welded terminals lock out flux, solvents, and other contaminants.

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

Matching indicators available.



Actual Size



TYPICAL SWITCH ORDERING EXAMPLE

AB 2 5 A P — H A

| Poles |              |
|-------|--------------|
| 1     | SPST<br>SPDT |
| 2     | DPDT         |

| Circuits        |     |      |
|-----------------|-----|------|
| 1               | OFF | (ON) |
| 5               | ON  | (ON) |
| ( ) = Momentary |     |      |

| PC Terminals |                                        |
|--------------|----------------------------------------|
| P            | Straight                               |
| B            | Straight with Bracket                  |
| B1           | Straight with Inline Bracket (SP only) |
| H            | Right Angle with Bracket               |
| V            | Vertical with Bracket                  |
| V1           | Vertical with Inline Bracket (SP only) |

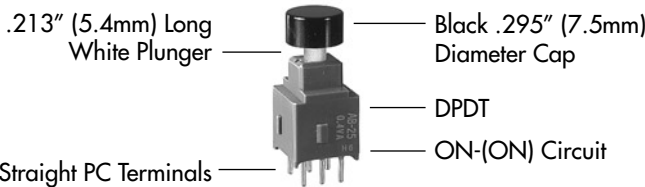
| Plungers                        |                                                  |
|---------------------------------|--------------------------------------------------|
| A                               | .213" (5.4mm) Long                               |
| *B                              | .183" (4.65mm) Long                              |
| *C                              | .080" (2.03mm) Long<br>(cannot be used with cap) |
| * Available in single pole only |                                                  |

| Caps |                        |
|------|------------------------|
| F    | .201" (5.1mm) Diameter |
| H    | .295" (7.5mm) Diameter |

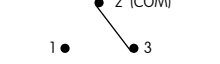
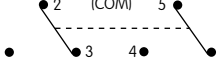
| Cap Colors |       |
|------------|-------|
| A          | Black |
| B          | White |
| C          | Red   |

DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

AB25AP-HA



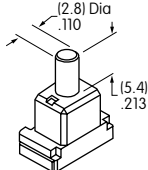
## POLES & CIRCUITS

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

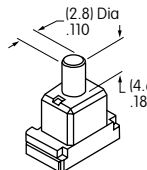
Note: Terminal numbers are not actually on the switch.

## PLUNGERS

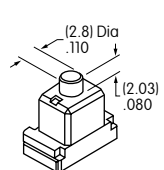
**A** .213" (5.4mm)  
Long



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



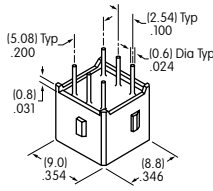
**C** .080" (2.03mm)  
Long  
(on SP only)



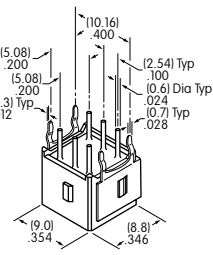
Standard Plunger Color: White      Contact factory for red or black options.

## PC TERMINALS

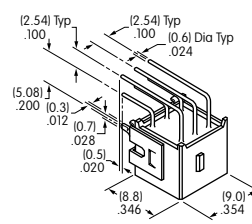
**P** Straight



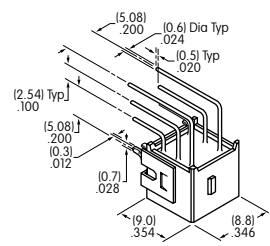
**B** Straight  
with Bracket



**H** Right Angle  
with Bracket



**V** Vertical  
with Bracket

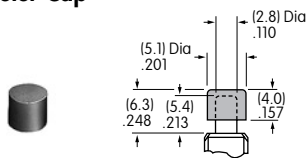


Use of a support bracket is recommended to increase PCB mounting strength and stability.  
B1 & V1 terminal dimensions appear on the pushbutton drawings which follow.

## SLIP-ON CAPS

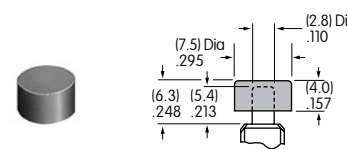
**F** AT475  
.201" (5.1mm) Diameter Cap

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

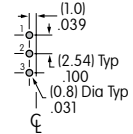
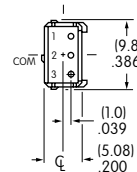
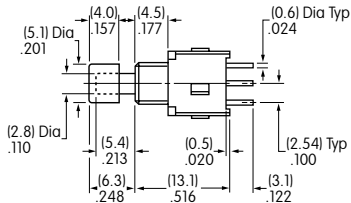
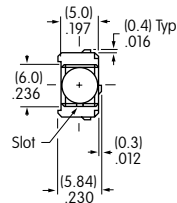
**B** White

**C** Red

### TYPICAL SWITCH DIMENSIONS

#### Straight PC

#### Single Pole

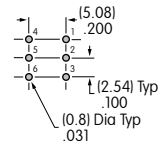
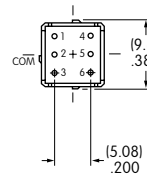
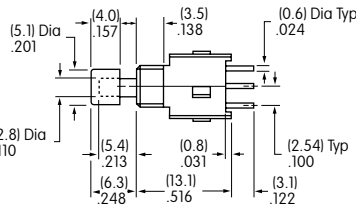
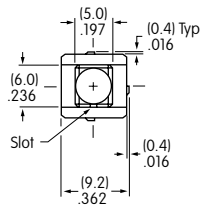


AB15AP-FA

AB11 model does not have terminal 2.

#### Straight PC

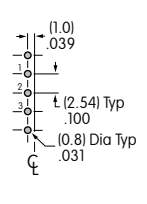
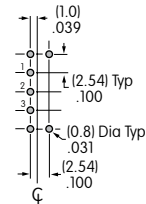
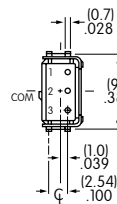
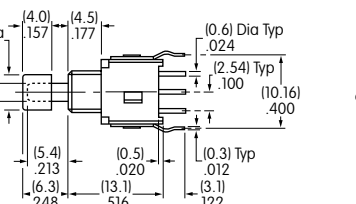
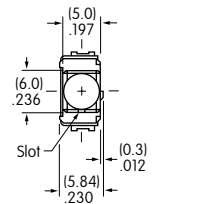
#### Double Pole



AB25AP-FA

#### Straight PC • Bracket

#### Single Pole



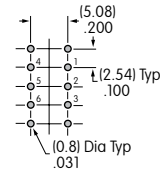
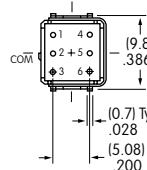
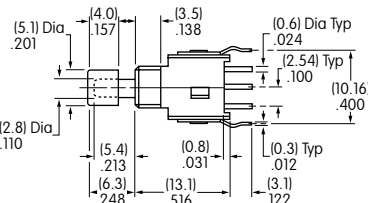
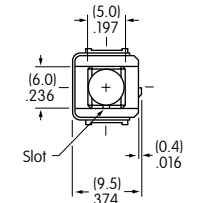
AB15AB-FA

B Terminals

B1 Terminals

#### Straight PC • Bracket

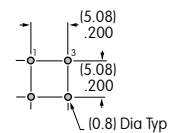
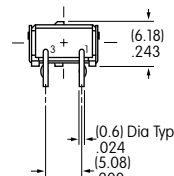
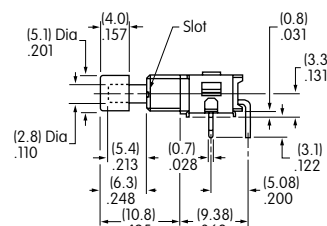
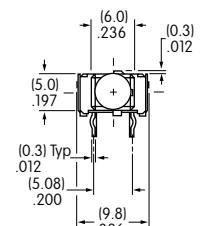
#### Double Pole



AB25AB-FA

#### Right Angle PC

#### Single Pole (Single Throw)

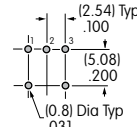
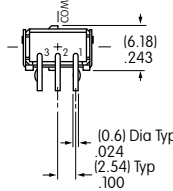
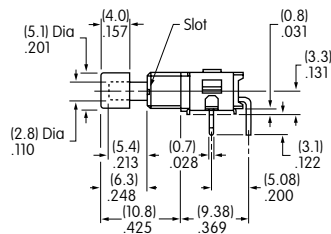
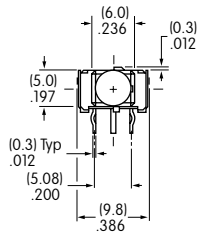


AB11AH-FA

## TYPICAL SWITCH DIMENSIONS

### Single Pole (Double Throw)

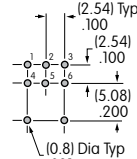
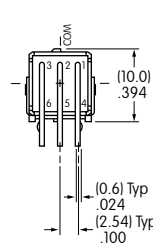
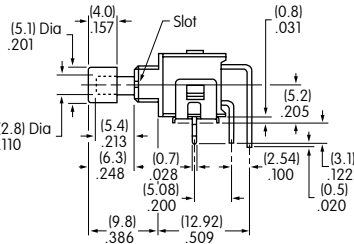
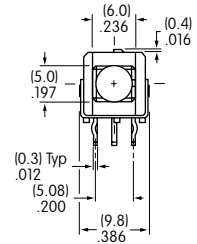
### Right Angle PC



AB15AH-FA

### Double Pole

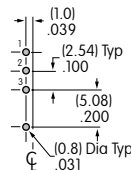
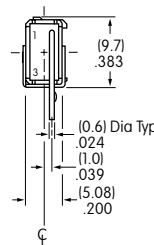
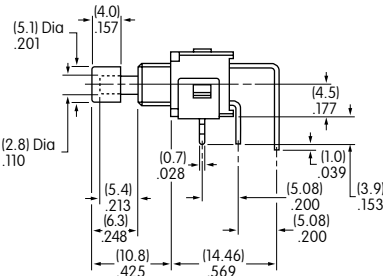
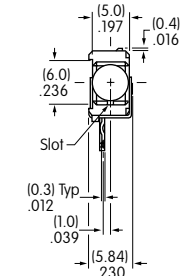
### Right Angle PC



AB25AH-FA

### Single Pole

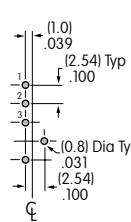
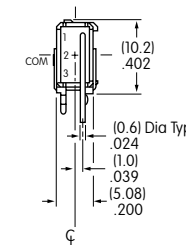
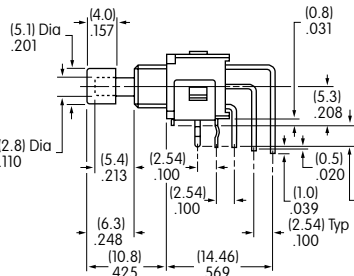
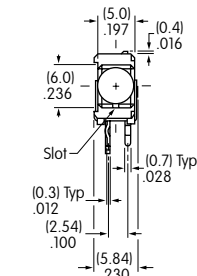
### Vertical PC • Inline Bracket



AB11 model does not have terminal 2. AB11AV1-FA

### Single Pole

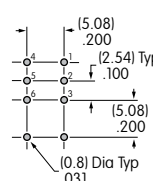
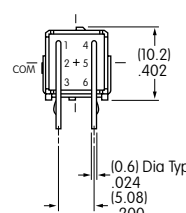
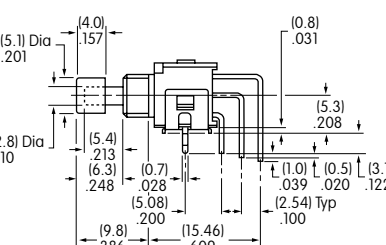
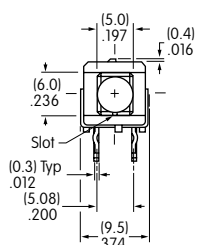
### Vertical PC



AB11 model does not have terminal 2. AB15AV-FA

### Double Pole

### Vertical PC



AB25AV-FA

## Данный компонент на территории Российской Федерации

**Вы можете приобрести в компании MosChip.**

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

moschip.ru\_6

moschip.ru\_9