

# 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:** 80 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:** 1.0N  
**Travel:** Pretravel .020" (0.5mm); Overtravel .023 (0.6mm); Total Travel .043" (1.1mm)

## Materials & Finishes

**Actuator:** Glass fiber reinforced polyamide (UL94V-0)  
**Case:** Glass fiber reinforced polyamide (UL94V-0)  
**Movable Contacts:** Phosphor bronze with gold plating  
**Stationary Contacts:** Brass with gold plating  
**Base:** Glass fiber reinforced polyamide (UL94V-0)  
**Mounting Bracket:** Phosphor bronze with tin plating  
**Terminals:** Brass with gold plating

## Environmental Data

**Operating Temperature Range:** -25°C through +70°C (-13°F through +158°F)  
**Humidity:** 90 ~ 95% humidity for 240 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)

## PCB Processing

**Soldering:** Wave Soldering Recommended: See Profile A in Supplement section.  
Manual Soldering: See Profile A in Supplement section.  
**Cleaning:** These devices are not process sealed. Hand clean locally using alcohol based solution.

## Standards & Certifications

**Flammability Standards:** UL94V-0 actuator, case, & base  
The GB2 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

Unique, off-center actuator allows high density setup and easy actuation while avoiding accidental operation in compact environments.

Side-by-side, block mounting can be achieved by use of bracket AT546 on straight PC mounting types.

Off-Momentary On Circuit.

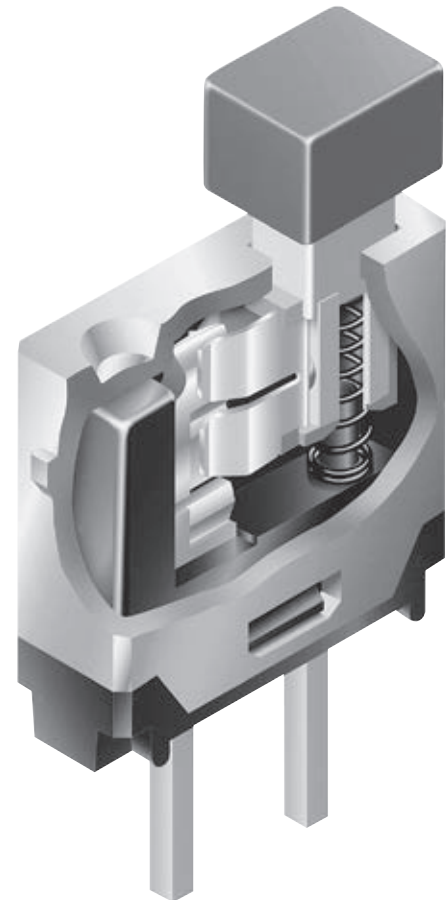
Black, white, and red snap-on caps available.

Extremely thin size allows high density PCB mounting and makes these switches ideal for handheld equipment.

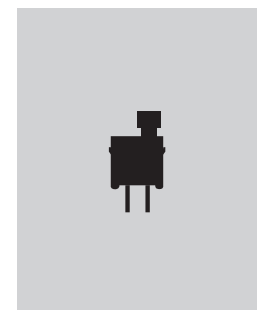
Award-winning STC contact mechanism with benefits unavailable in conventional mechanisms: smoother, positive detent actuation, increased contact stability and unparalleled logic-level reliability. (Additional STC details in Terms & Acronyms; see Supplement section.)

Molded-in, epoxy sealed terminals lock out flux and other contaminants.

.100" x .100" (2.54mm x 2.54mm) terminal spacing conforms to standard PC board grid spacing for straight and angle mounting.



Actual Size



## TYPICAL SWITCH ORDERING EXAMPLE

**GB2** **1** **5** **A** **B** —

Pole	
1	SPST

Circuit		
5	OFF	(ON)
( ) = Momentary		

Plunger	
A	Standard

PC Terminals	
P	Straight
B	Straight with Bracket
H	Right Angle 1 Switch
2H	Right Angle 2 Switches

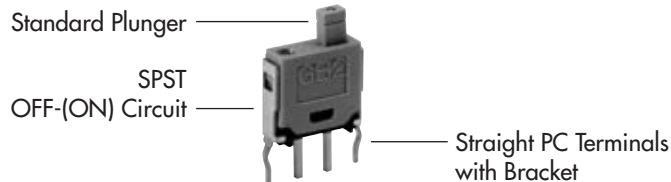
Cap Colors	
With P, B, or H Terminals for Single Switches	
A	Black
B	White
C	Red

With Terminal Code 2H for 2 Right Angle Switches		
Upper		*Lower
A	Black	A
B	White	B
C	Red	C

\* Nearest to PC Board

## DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

GB215AB



## POLE &amp; CIRCUIT

		Plunger Position ( ) = Momentary		Connected Terminals		Throw & Schematics
Pole	Model	Normal	Down	Normal	Down	
SP	GB215	OFF	(ON)	OPEN	1-2 1-2 3-4	SPST SPST with 2 switches

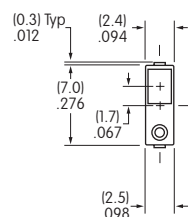
Note: Terminal numbers are not actually on the switch.

## TYPICAL SWITCH DIMENSIONS

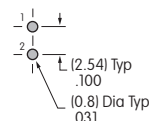
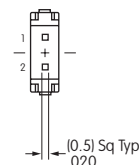
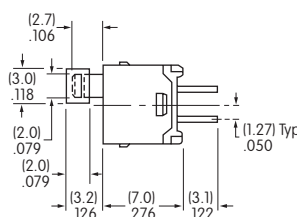
## Straight PC



GB215AP

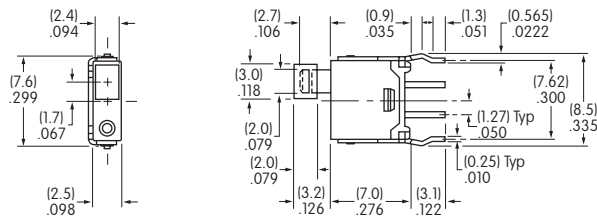


## Single Pole

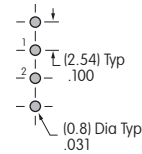


## TYPICAL SWITCH DIMENSIONS

### Single Pole

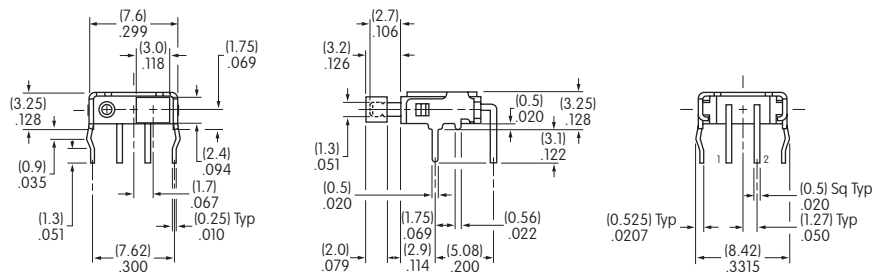


### Straight PC with Bracket

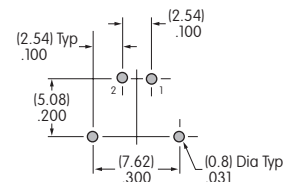


**GB215AB**

### Single Pole with 1 Switch

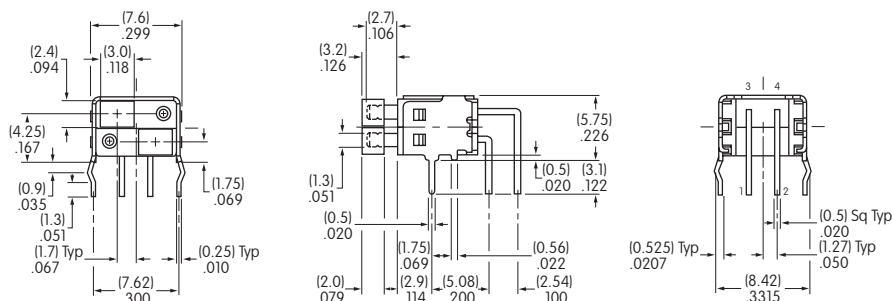


### Right Angle PC

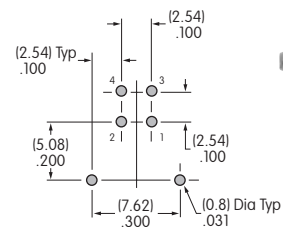


**GB215AH**

### Single Pole with 2 Switches



### Right Angle PC



**GB215A2H**

## SNAP-ON CAP & MOUNTING BRACKET

**A** AT4137 Rectangular Snap-on Cap  
Black

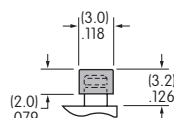
**B** AT4137 Rectangular Snap-on Cap  
White

**C** AT4137 Rectangular Snap-on Cap  
Red

Material: PBT  
Finish: Glossy

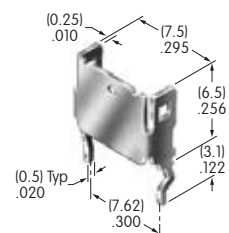


Actual Size



**AT546**  
Mounting Bracket  
for Block Mounting

Material:  
Phosphor Bronze  
with Tin Plating



# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## NKK Switches:

[GB215AP-C](#) [GB215AP-B](#) [GB215AP-A](#) [GB215A2H-BB](#) [GB215AP](#) [GB215AH-C](#) [GB215A2H-BC](#) [GB215AB-B](#)  
[GB215AB-C](#) [GB215AB](#) [GB215AB-A](#) [GB215A2H-AC](#) [GB215AH-B](#) [GB215A2H-AA](#) [GB215A2H](#) [GB215AH](#)  
[GB215AH-A](#)