

# 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:** 1.70N  
**Travel:** Pretravel .035" (0.9mm); Overtravel .008" (0.2mm); Total Travel .043" (1.1mm)

## Materials & Finishes

**Plunger:** Polyamide  
**Case:** Glass fiber reinforced polyamide  
**Sealing Rings:** Nitrile butadiene rubber  
**Movable Contact:** Phosphor bronze with gold plating  
**Stationary Contacts:** Phosphor bronze with gold plating  
**Base:** Glass fiber reinforced polyamide  
**Switch Terminals:** Phosphor bronze with gold plating  
**Lamp Terminals:** Phosphor bronze with gold plating

## Environmental Data

**Operating Temperature Range:** -25°C through +55°C (-13°F through +131°F)  
**Humidity:** 90 ~ 95% humidity for 240 hours @ 40°C (104°F)  
**Vibration:** 10 ~ 500Hz with peak-to-peak amplitude of 1.5mm traversing the frequency range & returning in 15 minutes; 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:** Automated alcohol based cleaning recommended, 5 minutes maximum. Do not use high-purity alcohol (50% alcohol or more) or organic solvent. High alcohol solution can damage clear plastic. See Cleaning specifications in Supplement section.

## Standards & Certifications

The GB Series illuminated 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

Fully illuminated plunger for highly visible status indication with single color LED in red, green, or amber.

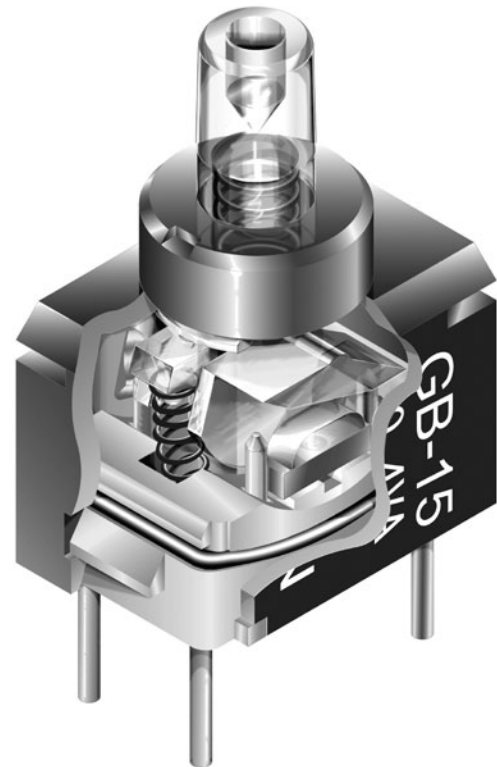
Ultra-miniature size allows high density mounting, and extremely light weight makes these switches ideal for handheld equipment.

Totally sealed body construction prevents contact contamination and allows time- and money-saving automated soldering and cleaning. Insert-molded terminals lock out flux, solvents, and other contaminants.

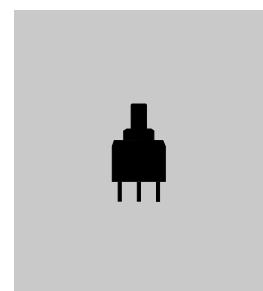
Award-winning STC contact mechanism with benefits unavailable in conventional mechanisms: smooth, positive detent actuation, increased contact stability, and unparalleled logic-level reliability. (Additional STC details in Terms & Acronyms; see Supplement section.)

.100" x .100" (2.54mm x 2.54mm) terminal spacing conforms to standard PC board grid spacing. Round terminals facilitate easier through-hole mounting on PC boards.

Nonilluminated pushbuttons available and shown in the Pushbutton section.



Actual Size

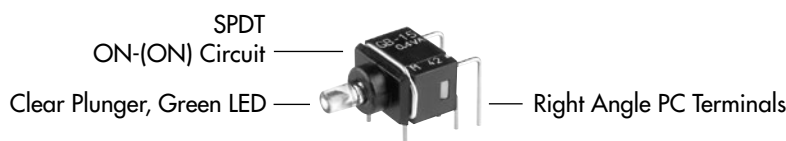


### TYPICAL SWITCH ORDERING EXAMPLE

| GB   |      | 1               |         | 5        |       | J            |             | H    |       | F |  |
|------|------|-----------------|---------|----------|-------|--------------|-------------|------|-------|---|--|
| Pole |      | Circuit         |         | Actuator |       | PC Terminals |             | LEDs |       |   |  |
| 1    | SPDT | 5               | ON (ON) | J        | Clear | P            | Straight    | C    | Red   |   |  |
|      |      | ( ) = Momentary |         |          |       | H            | Right Angle | D    | Amber |   |  |
|      |      |                 |         |          |       | V            | Vertical    | F    | Green |   |  |

### DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

**GB15JHF**

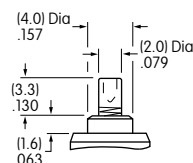


### POLE & CIRCUIT

|      |       | Plunger Position<br>( ) = Momentary |      | Connected Terminals |      | Throw & Switch/Lamp Schematics                                                                                        |
|------|-------|-------------------------------------|------|---------------------|------|-----------------------------------------------------------------------------------------------------------------------|
| Pole | Model | Normal                              | Down | Normal              | Down | Note: Terminal numbers are not actually on the switch. LED circuit is isolated and requires an external power source. |
| SP   | GB15  | ON                                  | (ON) | 5-6                 | 5-4  |                                                                                                                       |
|      |       |                                     |      |                     |      | SPDT                                                                                                                  |

### ACTUATOR

**J** Clear Plunger



### LED COLORS & SPECIFICATIONS

LEDs are an integral part of the switch and not available separately. The electrical specifications shown are determined at a basic temperature of 25°C.

If the source voltage exceeds the rated voltage, a ballast resistor is required.

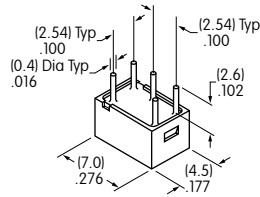
The resistor value can be calculated by using the formula in the Supplement section.

|                                   |              | C            | D         | F         |
|-----------------------------------|--------------|--------------|-----------|-----------|
| Colors                            |              | Red          | Amber     | Green     |
| Forward Peak Current              | $I_{FM}$     | 30mA         | 30mA      | 25mA      |
| Typical Forward Current           | $I_F$        | 20mA         | 20mA      | 20mA      |
| Forward Voltage                   | $V_F$        | 1.9V         | 1.9V      | 2.1V      |
| Reverse Peak Voltage              | $V_{RM}$     | 5V           | 5V        | 5V        |
| Current Reduction Rate Above 25°C | $\Delta I_F$ | 0.43mA/°C    | 0.43mA/°C | 0.36mA/°C |
| Ambient Temperature Range         |              | -25° ~ +55°C |           |           |

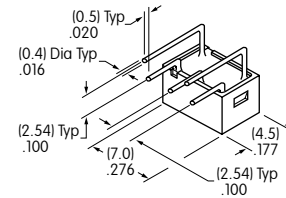
## PC TERMINALS



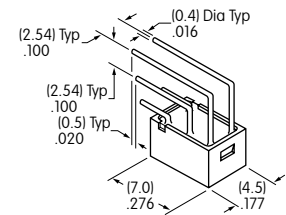
**Straight**



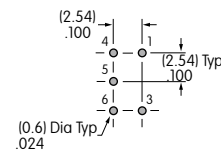
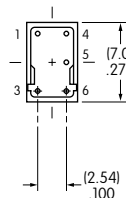
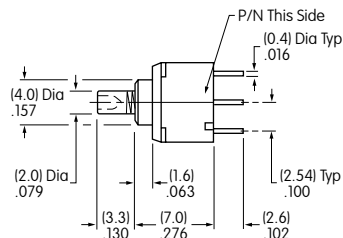
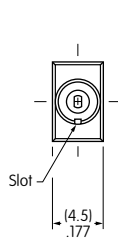
**Right Angle**



**Vertical**



## TYPICAL SWITCH DIMENSIONS



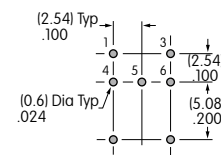
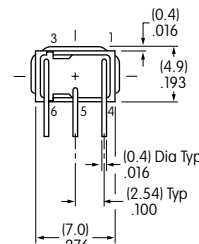
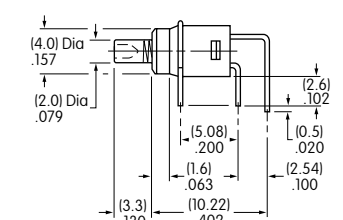
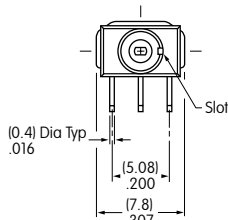
**Straight PC**



Terminals 1 & 3 are lamp terminals.

**GB15JPD**

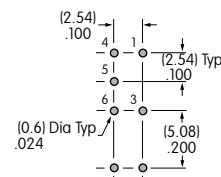
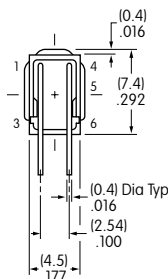
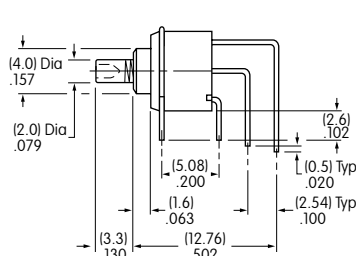
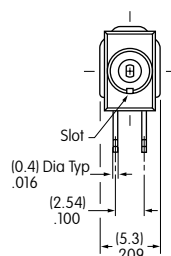
**Right Angle PC**



Terminals 1 & 3 are lamp terminals.

**GB15JHF**

**Vertical PC**



Terminals 1 & 3 are lamp terminals.

**GB15JVC**

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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