

# General Specifications

Toggles

Rockers

Pushbuttons

Illuminated PB

Programmable

Keylocks

Rotaries

Slides

Tactiles

Tilt

Touch

Indicators

Accessories

Supplement

## B 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  
 Angle of Throw: 28°

## Materials & Finishes

Actuator: Polycarbonate resin (UL94V-0)  
 Case: Glass fiber reinforced polyamide (UL94V-0)  
 Sealing Ring: Nitrile butadiene rubber  
 Base: Glass fiber reinforced polyamide  
 Movable Contact: Phosphor bronze with gold plating  
 Stationary Contact: Phosphor bronze with gold plating  
 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 ~ 55Hz with peak-to-peak amplitude of 1.5mm traversing the frequency range & returning in 5 minutes; 3 right angled directions for 2 hours  
 Shock: 50G (490m/s<sup>2</sup>) acceleration (tested in 3 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.

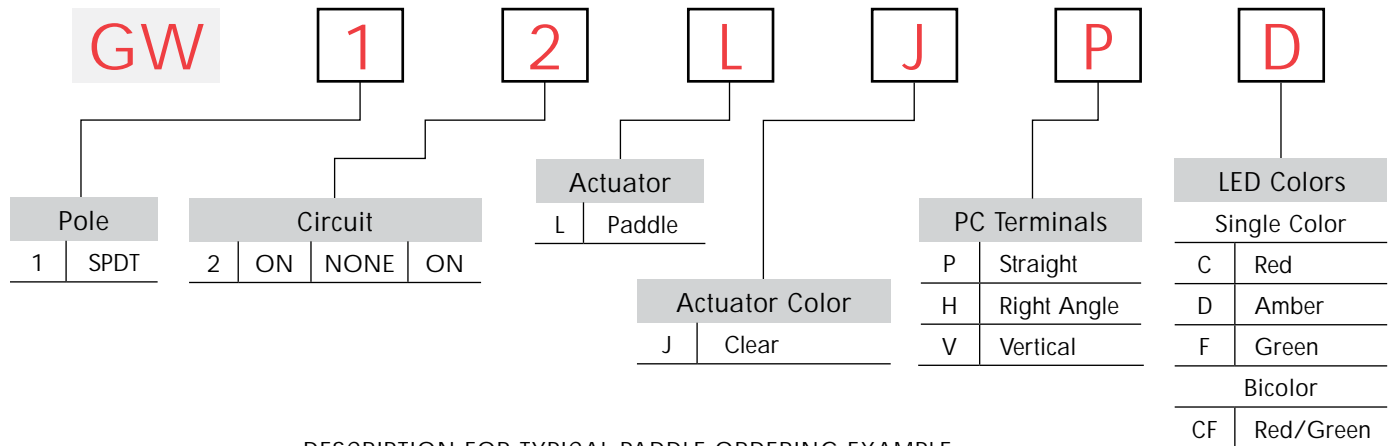
## Standards & Certifications

Flammability Standard: UL94V-0 actuator & case

The GW Series illuminated paddles 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.

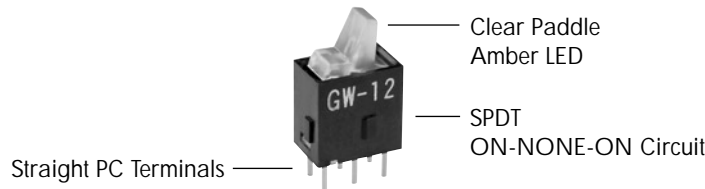


### TYPICAL SWITCH ORDERING EXAMPLE



### DESCRIPTION FOR TYPICAL PADDLE ORDERING EXAMPLE

GW12LJPD



### POLE & CIRCUIT

		Paddle Position			Connected Terminals			Throw & Schematics			
Pole	Model	Up	Center	Down	Up	Center	Down	Note: Terminal numbers are not actually on the switch. LED circuit is isolated and requires an external power source.			
SP	GW12	ON	NONE	ON	2-3	OPEN	2-1	SPDT			

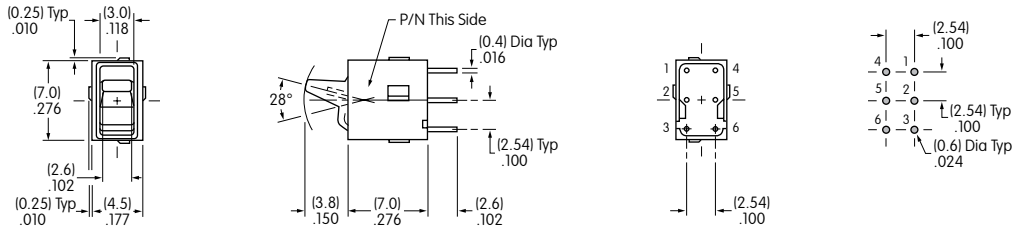
### LED COLORS & SPECIFICATIONS

LEDs are an integral part of the 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.

		Single Color			Bicolor
		C	D	F	CF
Colors		Red	Amber	Green	Red/Green
Forward Peak Current	$I_{FM}$	25mA	25mA	25mA	25mA/25mA
Continuous Forward Current	$I_F$	20mA	20mA	20mA	20mA/20mA
Forward Voltage	$V_F$	2.0V	2.1V	2.1V	2.0V/2.1V
Reverse Peak Voltage	$V_{RM}$	4V	4V	4V	4V/4V
Current Reduction Rate Above 25°C	$I_F$	0.33mA/°C	0.33mA/°C	0.33mA/°C	0.33mA/°C
Ambient Temperature Range		25°C ~ +55°C			

TYPICAL SWITCH DIMENSIONS

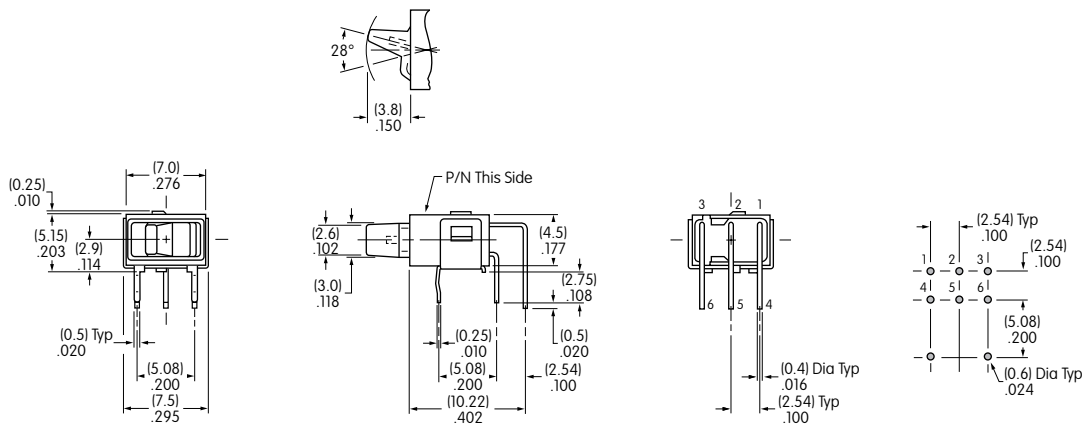
Straight PC



5 & 6 are LED terminals; 4 is a support pin on single color models & an LED terminal on bicolor models.

GW12LJPC

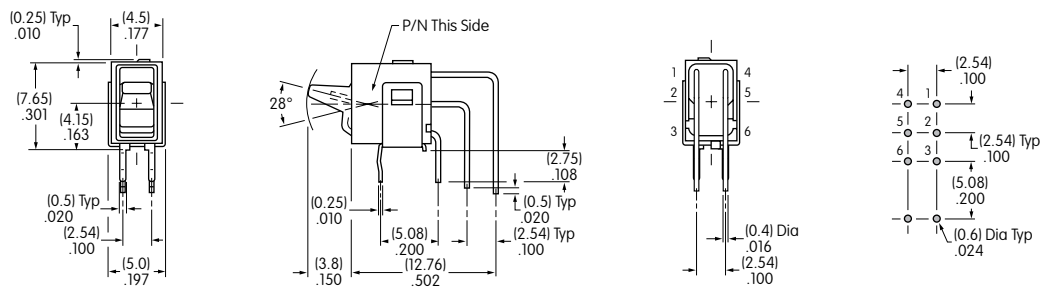
Right Angle PC



5 & 6 are LED terminals; 4 is a support pin on single color models & an LED terminal on bicolor models.

GW12LJHD

Vertical PC



5 & 6 are LED terminals; 4 is a support pin on single color models & an LED terminal on bicolor models.

GW12LJVCF