



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



## General Specifications

Toggle

Rockers  
B

Pushbuttons

Illuminated PB

Programmable

Keylocks

Rotaries

Slides

Tactiles

Tilt

Touch

Indicators

Accessories

Supplement

### Electrical Capacity (Resistive Load)

**Power Level:** 9A @ 125V AC

### Other Ratings

**Contact Resistance:** 20 milliohms maximum

**Insulation Resistance:** 500 megohms minimum @ 500V DC

**Dielectric Strength:** 1,500V AC minimum between contacts for 1 minute minimum;  
3,000V AC minimum between contacts & case for 1 minute minimum

**Mechanical Life:** 30,000 operations minimum

**Electrical Life:** 10,000 operations minimum

**Nominal Operating Force:** 10.0N

**Angle of Throw:** 30°

### Materials & Finishes

**Rocker:** Polycarbonate

**Housing:** Polyamide

**Movable Contactor:** Beryllium copper with silver plating

**Movable Contacts:** Silver alloy

**Stationary Contacts:** Silver alloy

**Switch Terminals:** Brass with silver plating

**Lamp Terminals:** Brass with silver plating

### Environmental Data

**Operating Temp Range:** -20°C through +85°C (-4°F through +185°F)

**Humidity:** 90 ~ 95% humidity for 96 hours @ 40°C (104°F)

**Vibration:** 10 ~ 55Hz with peak-to-peak amplitude of 0.75mm 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

**Soldering Time & Temp:** Manual Soldering: See Profile B in Supplement section.

### Standards & Certifications

**UL:** File No. E44145  
9A @ 125V AC  
Markings on case are standard.

**CSA:** File No. 0701166\_0\_000  
9A @ 125V AC  
Markings on case are standard.

# Distinctive Characteristics

Full face, Neon illumination in choice of red, amber, or green.

Neon lamp suited to 125V AC applications.

9-amp electrical capacity in compact body.

Built-in resistor for direct connection to 125V AC power source.

Low cost molded rocker.

Front panel, snap-in mounting assures labor-saving installation.

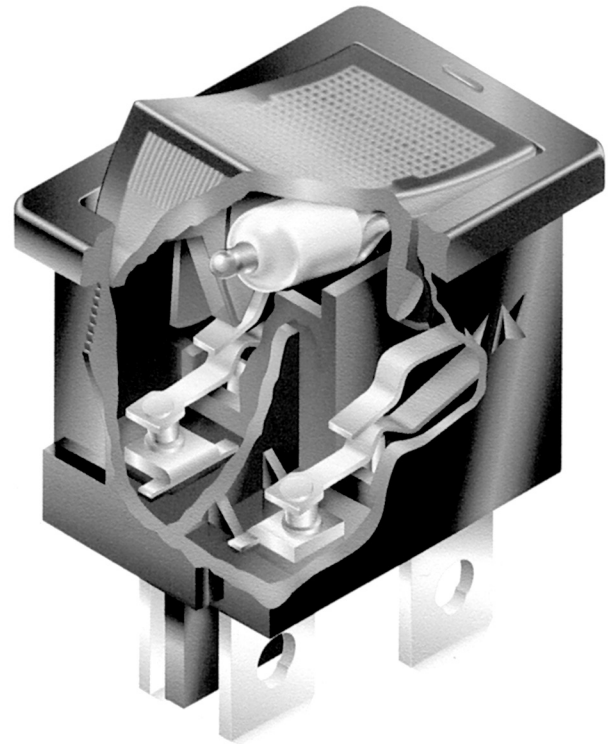
Single-break, snap-acting contact mechanism gives smooth actuation and audible feedback.

Quick-make, quick-break characteristic limits arcing and prolongs electrical life.

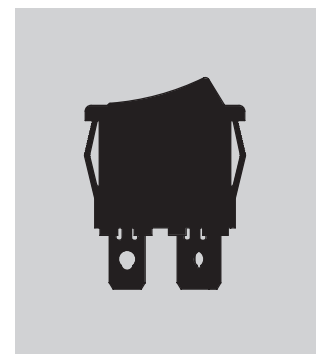
Stable stationary contact construction for high reliability.

Offset terminal alignment gives outstanding insulation resistance and dielectric strength.

Solder lug/.187" quick connect terminals can be used with connectors.

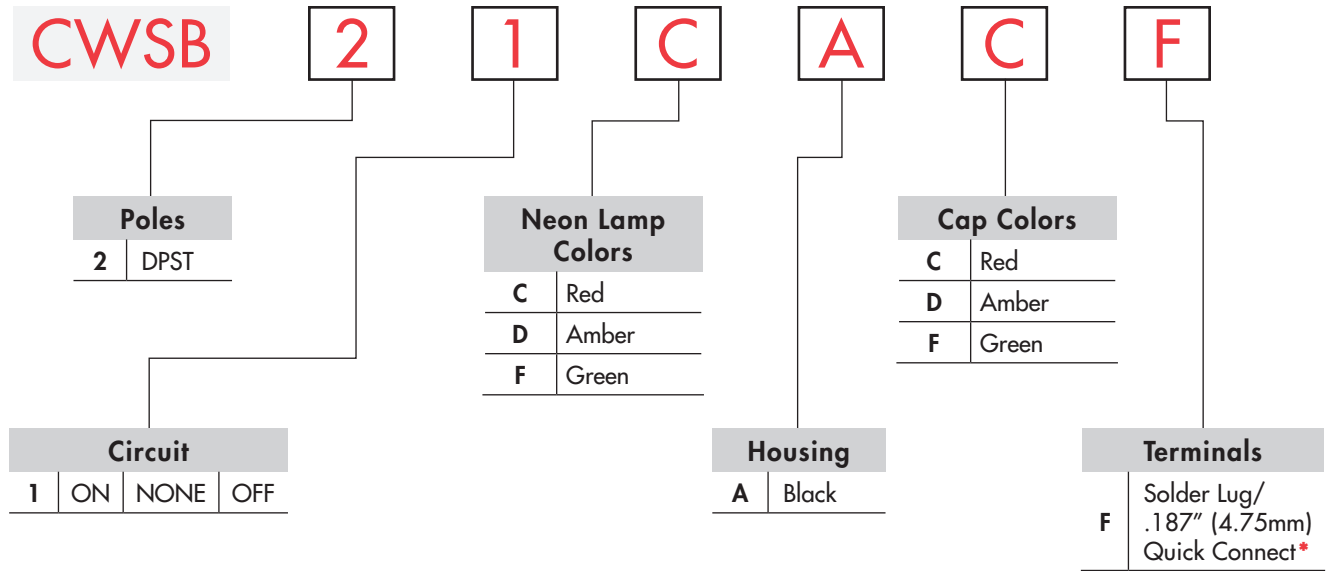


Actual Size



- Toggles
- B** Rockers
- Pushbuttons
- Programmable Illuminated PB
- Keylocks
- Rotaries
- Slides
- Tactiles
- Tilt
- Touch
- Indicators
- Accessories
- Supplement

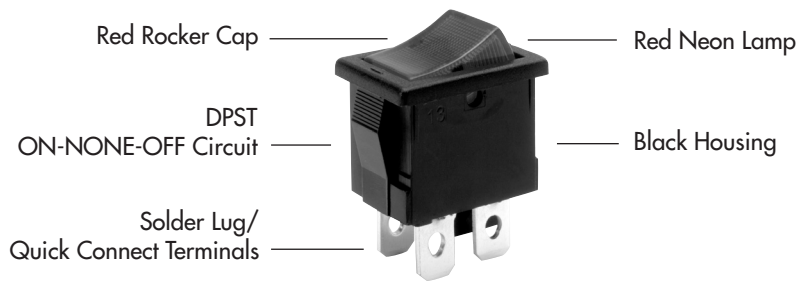
### TYPICAL SWITCH ORDERING EXAMPLE



\* Wire harness & cable assemblies offered only in Americas

### DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

**CWSB21CACF**



### IMPORTANT:



Switches are supplied with UL & CSA markings on case. Specific models & ratings noted on General Specifications page.

### POLE & CIRCUIT

Pole	Model	Rocker Position			Connected Terminals			Throw & Switch/Lamp Schematic
		Down	Center	Up	Down	Center	Up	
DP	CWSB21	ON	NONE	OFF	1-1a 2-2a	OPEN	OPEN	DPST

Note: Terminal numbers "1a" & "2a" are actually on the switch.

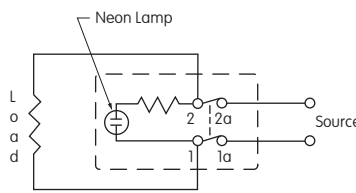
## NEON LAMP COLORS & SPECIFICATIONS

The Neon lamp is factory assembled and not available separately. The lamp circuit is synchronous to switching circuit.

The electrical specifications shown are determined at a basic temperature of 25°C.

Values for the built-in resistors are given in the accompanying table.

		Colors		
		<b>C</b> Red	<b>D</b> Amber	<b>F</b> Green
Voltage	V	125V AC	125V AC	125V AC
Internal Series Resistance		33K ohms	33K ohms	68K ohms
Current	I	1.4mA	1.4mA	0.6mA
Endurance	Hours	15,000	15,000	8,000



## HOUSING

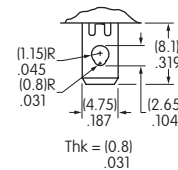
**A** Black Housing with Snap-in Mounting

On Off (I O) symbols are molded on the bezel.



## TERMINALS

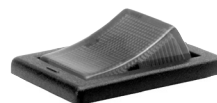
**F** Solder Lug/.187" (4.75mm) Quick Connect



## CAP COLOR CODES

Cap Colors Available

**C** Red    **D** Amber    **F** Green

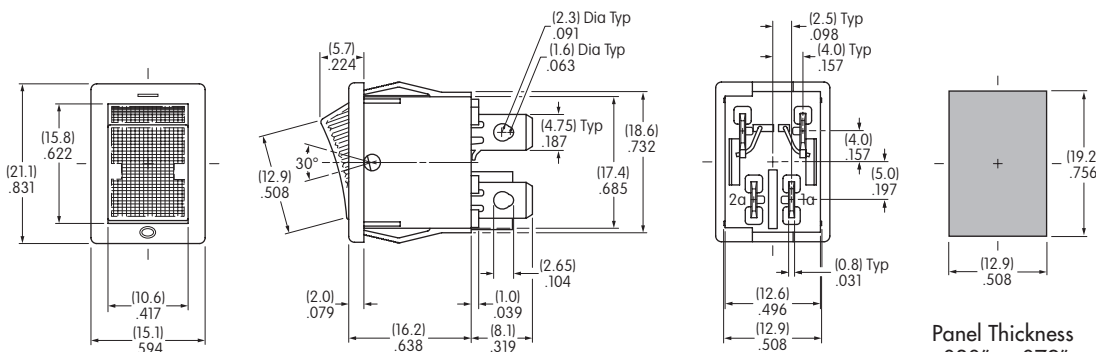


Caps are factory assembled and are not available separately.

## TYPICAL SWITCH DIMENSIONS

### Double Pole

### Neon Illuminated



CWSB21CACF

Toggles  
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Pushbuttons  
Illuminated PB  
Programmable  
Keylocks  
Rotaries  
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