## : ©hipsmall

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

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# General Specifications 

## Other Ratings

Contact Resistance: 80 milliohms maximum
Insulation Resistance: 500 megohms minimum @ 500V DC
Dielectric Strength: 500 V AC minimum for 1 minute minimum
Mechanical Life: 100,000 operations minimum for On-None-On \& On-Off-On 50,000 operations minimum for other circuits
Electrical Life: 100,000 operations minimum for On-None-On \& On-Off-On 50,000 operations minimum for other circuits
Nominal Operating Force: .81 N for momentary \& 1.06 N for maintained
Angle of Throw: $28^{\circ}$

Materials \& Finishes
Actuator: Glass fiber reinforced 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
Terminals: Phosphor bronze with gold plating

## Environmental Data

Operating Temperature Range:
$-25^{\circ} \mathrm{C}$ through $+85^{\circ} \mathrm{C}\left(-13^{\circ} \mathrm{F}\right.$ through $\left.+185^{\circ} \mathrm{F}\right)$
Humidity: $\quad 90 \sim 95 \%$ humidity for 96 hours @ $40^{\circ} \mathrm{C}\left(104^{\circ} \mathrm{F}\right)$
Vibration: $\quad 10 \sim 55 \mathrm{~Hz}$ with peak-to-peak amplitude of 1.5 mm traversing the frequency range \& returning in 1 minute; 3 right angled directions for 2 hours
Shock: $50 G\left(490 \mathrm{~m} / \mathrm{s}^{2}\right)$ acceleration (tested in 6 right angled directions, with 5 shocks in each direction)

## Installation

Cap Installation Force: $\quad 39.1 \mathrm{~N}(8.8 \mathrm{lbf})$ maximum downward force on actuator
PCB Processing
Soldering: Wave Soldering Recommended: See Profile A in Supplement section. Manual Soldering: See Profile A in Supplement section.
Cleaning: Automated cleaning. See Cleaning specifications in Supplement section.

Standards \& Certifications
The G Series rockers 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

Ultra-miniature size allows high density mounting, and extremely light weight of 0.25 gram makes these switches ideal for handheld equipment.

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.)
$.100^{\prime \prime} \times .100^{\prime \prime}(2.54 \mathrm{~mm} \times 2.54 \mathrm{~mm})$ terminal spacing conforms to standard PC board grid spacing. Round terminals facilitate easier through-hole mounting on PC boards.


Matching indicators available.



## TYPICAL SWITCH ORDERING EXAMPLE



| Poles |  |
| :---: | :---: |
| $\mathbf{1}$ | SPDT |
| $\mathbf{2}$ | DPDT |


| Circuits |  |  |  |
| :---: | :---: | :---: | :---: |
| $\mathbf{2}$ | ON | NONE | ON |
| $\mathbf{3}$ | ON | OFF | ON |
| $\mathbf{5}$ | ON | NONE | (ON) |
| $\mathbf{8}$ | (ON) | OFF | (ON) |
| $\mathbf{9}$ | ON | OFF | (ON) |

DESCRIPTION FOR TYPICAL ORDERING EXAMPLE G22KP-YA
( ) = Momentary

| POLES \& CIRCUITS |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Rocker Position <br> ( ) = Momentary |  |  | Connected Terminals |  |  | Throw \& Schematics |  |
| Pole | Model | Up | Center | Down |  | Center | Down | Note: | Terminal numbers are not actually on the switch. |
| SP | G12 <br> G13 <br> G15 <br> G18 <br> G19 | ON <br> ON <br> ON <br> (ON) <br> ON | NONE OFF NONE OFF OFF | ON <br> ON <br> (ON) <br> (ON) <br> (ON) | 5-6 | OPEN | 5-4 | SPDT | $\int_{6}^{5(C O M)}$ |
| DP | $\begin{aligned} & \text { G22 } \\ & \text { G23 } \\ & \text { G25 } \\ & \text { G28 } \\ & \text { G29 } \end{aligned}$ | ON <br> ON <br> ON <br> (ON) <br> ON | NONE OFF NONE OFF OFF | ON <br> ON <br> (ON) <br> (ON) <br> (ON) | 5-6 2-3 | OPEN | 5-4 2-1 | DPDT |  |

## ACTUATOR

## K

Snap Top for Rocker


## PC TERMINALS



## ROCKER CAP \& COLORS



Color Codes: $\quad$ A Black $\quad$ B White $\quad$ C Red

## TYPICAL SWITCH DIMENSIONS

## Single \& Double Pole

Straight PC


On single pole models positions $1 \& 3$ are support pins.
G23KP-YA


