## SS Series Miniature Slide Switches

#### Features/Benefits

- Broad range of products
- Various circuit design, SPDT, 4P3T, vertical, right angle
- Compact miniature slide switch
- Shorting or non-shorting
- Custom design available

### **Typical Applications**

- Consumer electronics
- Computer peripherals
- Telecommunication
- Audio & visual equipment
- Medical
- Automotive

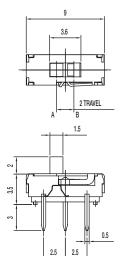


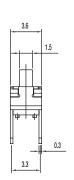


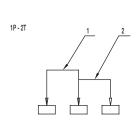




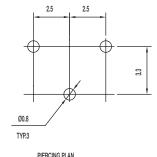
#### **SS-12D1305-G 2** 1P2T NON-SHORTING







SCHEMATIC



#### **Specifications**

CONTACT RATING: 0.3A @ 6 VDC

INITIAL CONTACT RESISTANCE: 70 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $200 \pm 100 \text{ gf} (1.96 \pm 0.98\text{N})$ 

TRAVEL: 2 ± 0.3 mm

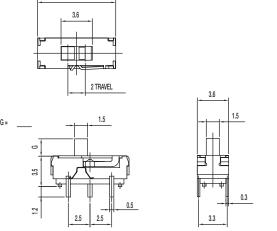
OPERATING TEMPERATURE: -20°C to 70°C

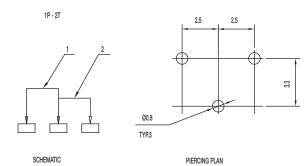
#### **Materials**

KNOB: PA COVER: SUS HOUSING: PA

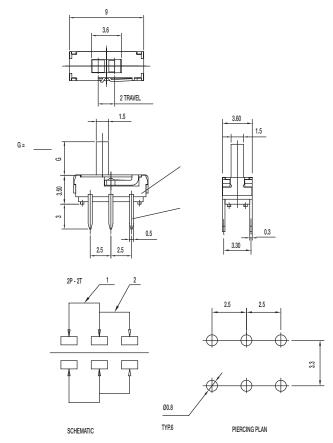
CONTACT: Silver clad
TERMINAL: Silver plated







#### SS-22D0205-G DPDT NON-SHORTING



#### **Specifications**

CONTACT RATING: 0.3A @ 6 VDC

INITIAL CONTACT RESISTANCE: 70 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $200 \pm 100 \text{ gf} (1.96 \pm 0.98\text{N})$ 

TRAVEL: 2 ± 0.3 mm

OPERATING TEMPERATURE: -20°C to 80°C

#### **Materials**

KNOB: PA COVER: SUS HOUSING: PA

CONTACT: Silver clad TERMINAL: Silver plated

#### **Specifications**

CONTACT RATING: 0.3A @ 6 VDC

INITIAL CONTACT RESISTANCE: 70 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $200 \pm 100 \text{ gf} (1.96 \pm 0.98\text{N})$ 

TRAVEL: 2 ± 0.3 mm

OPERATING TEMPERATURE: -20°C to 80°C

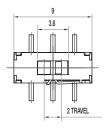
#### **Materials**

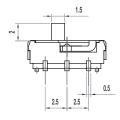
KNOB: PA COVER: SUS HOUSING: PA

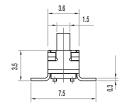
CONTACT: Silver clad TERMINAL: Silver plated

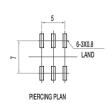
# SS Series Miniature Slide Switches

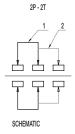
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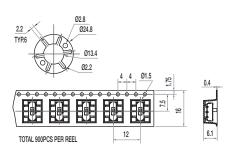


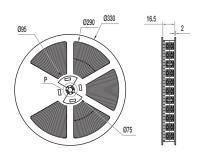












#### **Specifications**

CONTACT RATING: 0.3A @ 6 VDC

INITIAL CONTACT RESISTANCE: 70 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $200 \pm 100 \text{ gf} (1.96 \pm 0.98 \text{N})$ 

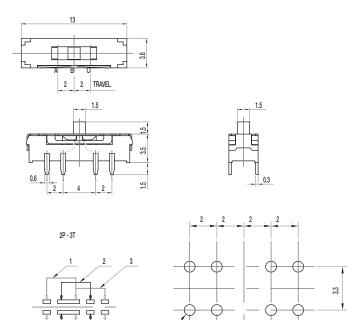
TRAVEL: 2 ± 0.3 mm

OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

KNOB: PA COVER: SUS HOUSING: PA

CONTACT: Silver clad TERMINAL: Silver plated



PIERCING PLAN

#### **Specifications**

CONTACT RATING: 0.3A @ 6 VDC

INITIAL CONTACT RESISTANCE: 70 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $200 \pm 100 \text{ gf} (1.96 \pm 0.98 \text{N})$ 

 $250 \pm 100 \text{ gf } (2.47 \pm 0.98 \text{N})$ 

TRAVEL: 2 ± 0.3 mm

OPERATING TEMPERATURE: -20°C to 70°C

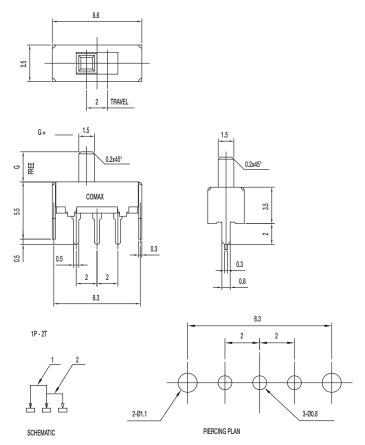
#### **Materials**

KNOB: PA
COVER: SUS
HOUSING: PA
CONTACT: Silver clad
TERMINAL: Silver plated

#### SS-12D01-G E NS 1P2T NON-SHORTING

SCHEMATIC

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#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $200 \pm 100 \text{ gf} (1.96 \pm 0.98\text{N})$ 

TRAVEL:  $2 \pm 0.3 \text{ mm}$ 

OPERATING TEMPERATURE: -20°C to 70°C

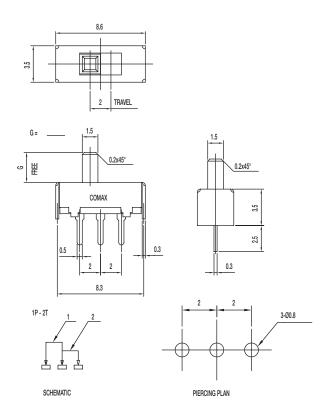
#### **Materials**

KNOB: POM
COVER: SUS
FRAME: SPTE
CONTACT: Silver clad
TERMINAL: Silver plated



# SS Series Miniature Slide Switches

#### SS-12D06-G E NS 1P2T NON-SHORTING



#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load OPERATING FORCE: 200  $\pm$  100 gf (1.96  $\pm$  0.98N)

TRAVEL: 2 ± 0.3 mm

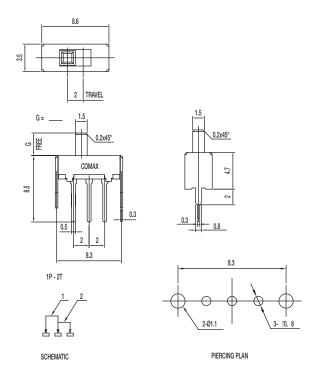
OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

KNOB: POM FRAME: SPTE

CONTACT: Silver clad TERMINAL: Silver plated





#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $200 \pm 100 \text{ gf} (1.96 \pm 0.98\text{N})$ 

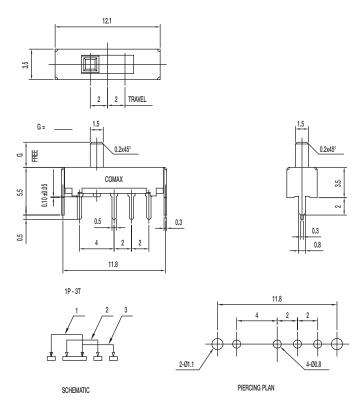
TRAVEL: 2 ± 0.3 mm

OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

KNOB: POM
FRAME: SPTE
CONTACT: Silver clad
TERMINAL: Silver plated

#### SS-13D01-G 1P3T



#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $200 \pm 100 \text{ gf} (1.96 \pm 0.98 \text{N})$ 

 $250 \pm 100 \text{ gf } (2.47 \pm 0.98 \text{N})$ 

TRAVEL:  $2 \pm 0.3$  mm

OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

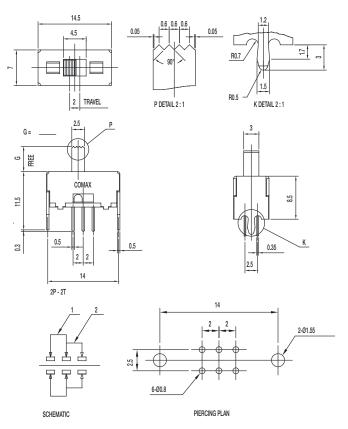
KNOB: POM FRAME: SPTE

CONTACT: Silver clad TERMINAL: Silver plated



**SS Series** 

### SS-22D28-G NS 2P2T NON-SHORTING



#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

**Miniature Slide Switches** 

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load OPERATING FORCE: 200  $\pm$  100 gf (1.96  $\pm$  0.98N)

TRAVEL: 2 ± 0.3 mm

OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

KNOB: POM FRAME: SPCC

CONTACT: Silver clad TERMINAL: Silver plated

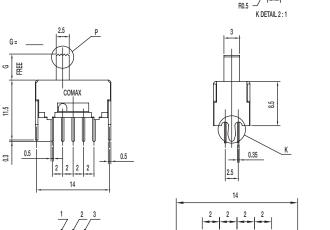


www.ckswitches.com

SS-23D28-G NS 2P3T NON-SHORTING

14.5

## 6.5 TRAVEL P DETAIL 3:1



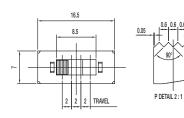
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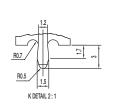
PIFRCING PLAN

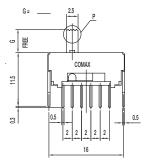
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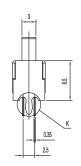
### SCHEMATIC SS-24D28-G NS 2P4T NON-SHORTING

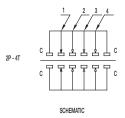
2P - 3T

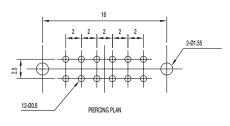












#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE: 200 ± 100 gf (1.96 ± 0.98N)

 $300 \pm 150 \text{ gf} (2.94 \pm 1.47 \text{N})$ 

TRAVEL: 2 ± 0.3 mm

OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

KNOB: POM FRAME: SPCC

CONTACT: Silver clad TERMINAL: Silver plated

#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $200 \pm 100 \text{ gf} (1.96 \pm 0.98\text{N})$ 

 $250 \pm 100 \text{ gf } (2.45 \pm 0.98\text{N}); 300 \pm 100 \text{ gf } (2.94 \pm 0.98\text{N})$ 

TRAVEL: 2 ± 0.3 mm

OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

KNOB: POM FRAME: SPCC

CONTACT: Silver clad TERMINAL: Silver plated



### **Materials**

OPERATING LIFE: 10,000 cycles with load

OPERATING TEMPERATURE: -20°C to 70°C

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

OPERATING FORCE:  $200 \pm 100 \text{ gf} (1.96 \pm 0.98\text{N})$ 

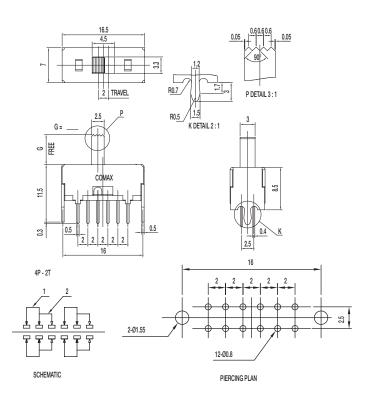
DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

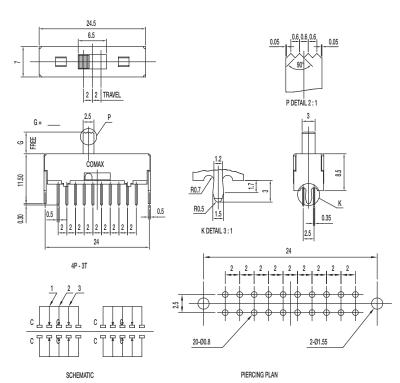
KNOB: POM FRAME: SPCC CONTACT: Silver clad TERMINAL: Silver plated

TRAVEL: 2 ± 0.3 mm

**Specifications** 



#### SS-43D28-G NS 4P3T NON-SHORTING



#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $200 \pm 100 \text{ gf} (1.96 \pm 0.98 \text{N})$ 

 $300 \pm 150 \text{ gf } (2.94 \pm 1.47 \text{N})$ 

TRAVEL: 2 ± 0.3 mm

OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

KNOB: POM FRAME: SPCC

CONTACT: Silver clad TERMINAL: Silver plated



Dimensions are shown: Inches (mm) Specifications and dimensions subject to change SS-23D33-HG NS 2P3T NON-SHORTING

SCHEMATIC

### 20 14.5 8.5 TYP2 P DETAIL 21 2 2 TRAVEL 4.5 P 2 2 13.2 2 2 TRAVEL 2 2 2 13.2

PIERCING PLAN

### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load OPERATING FORCE: 200  $\pm$  100 gf (1.96  $\pm$  0.98N)

 $300 \pm 100 \text{ gf } (2.94 \pm 0.98 \text{N})$ 

TRAVEL: 2 ± 0.3 mm

OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

KNOB: POM FRAME: SPCC

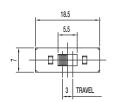
CONTACT: Silver clad TERMINAL: Silver plated



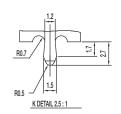
I-94

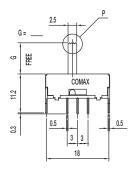
# SS Series Miniature Slide Switches

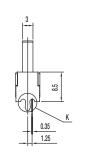
#### SS-12F28-G NS 1P2T NON-SHORTING

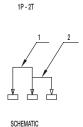


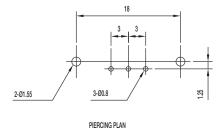












### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE: 200 ± 100 gf (1.96 ± 0.98N)

TRAVEL: 3 ± 0.3 mm

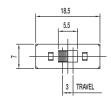
OPERATING TEMPERATURE: -20°C to 70°C

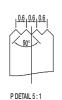
#### Materials

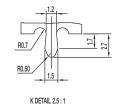
KNOB: POM FRAME: SPCC

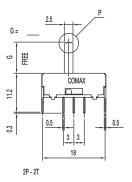
CONTACT: Silver clad TERMINAL: Silver plated

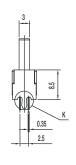


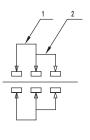




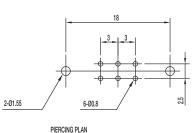




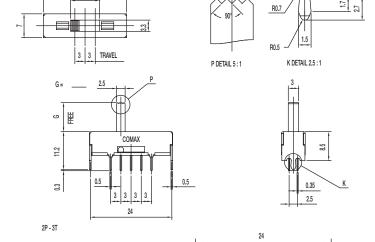




8.5



SCHEMATIC PIERCE
SS-23F28-G 6 NS 2P3T NON-SHORTING





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PIERCING PLAN

#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $200 \pm 100 \text{ gf} (1.96 \pm 0.98\text{N})$ 

TRAVEL: 3 ± 0.3 mm

OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

KNOB: POM
FRAME: SPCC
CONTACT: Silver clad

TERMINAL: Silver plated

#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $180 \pm 50 \text{ gf} (1.76 \pm 0.49 \text{N}) (A->B / C->B)$ 

220  $\pm$  100 gf  $\,$  (2.16  $\pm$  0.98N) (B->C / B->A)

TRAVEL:  $3 \pm 0.3$  mm

OPERATING TEMPERATURE: -20°C to 70°C

KNOB LENGTH: 6mm

#### **Materials**

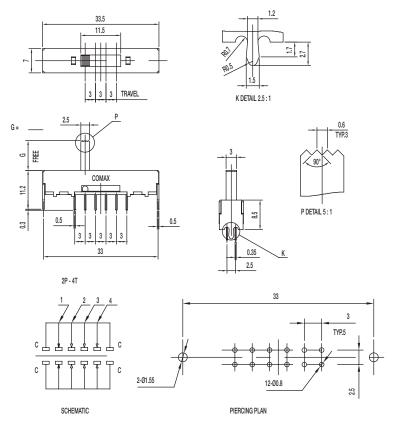
KNOB: POM
FRAME: SPCC
CONTACT: Silver clad
TERMINAL: Silver plated

Dimensions are shown: Inch (mm) Specifications and dimensions subject to change

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#### SS-24F28-G 2P4T NON-SHORTING



#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $200 \pm 100 \text{ gf} (1.96 \pm 0.98 \text{N})$ 

 $250 \pm 100 \text{ gf } (2.45 \pm 0.98\text{N})$ 

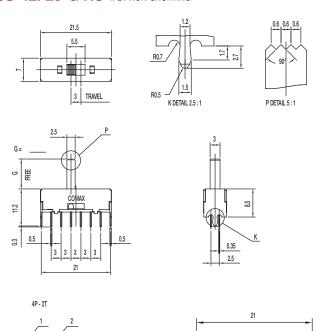
TRAVEL: 3 ± 0.3 mm

OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

KNOB: POM
FRAME: SPCC
CONTACT: Silver clad
TERMINAL: Silver plated

#### SS-42F28-G NS 4P2T NON-SHORTING



#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $200 \pm 100 \text{ gf} (1.96 \pm 0.98 \text{N})$ 

TRAVEL:  $3 \pm 0.3$  mm

OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

KNOB: POM
FRAME: SPCC
CONTACT: Silver clad
TERMINAL: Silver plated



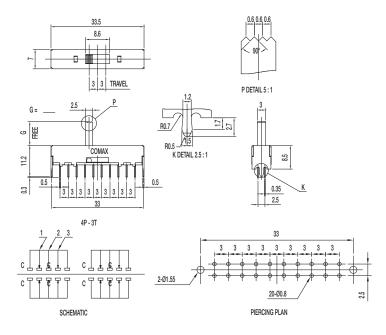
SCHEMATIC

2-Ø1.55

12-00.8

PIERCING PLAN

2.5



#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $200 \pm 100 \text{ gf} (1.96 \pm 0.98\text{N})$ 

 $250 \pm 100 \text{ gf } (2.45 \pm 0.98 \text{N})$ 

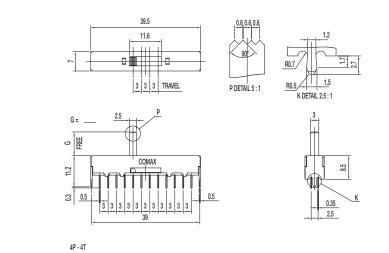
TRAVEL: 3 ± 0.3 mm

OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

KNOB: POM
FRAME: SPCC
CONTACT: Silver clad
TERMINAL: Silver plated

#### SS-44F28-G NS 4P4T NON-SHORTING



2-Ø1.55

#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE: 200  $\pm$  100 gf (1.96  $\pm$  0.98N)

 $250 \pm 100 \text{ gf} (2.45 \pm 0.98 \text{N})$ 

TRAVEL: 3 ± 0.3 mm

OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

KNOB: POM FRAME: SPCC

CONTACT: Silver clad TERMINAL: Silver plated



SCHEMATIC

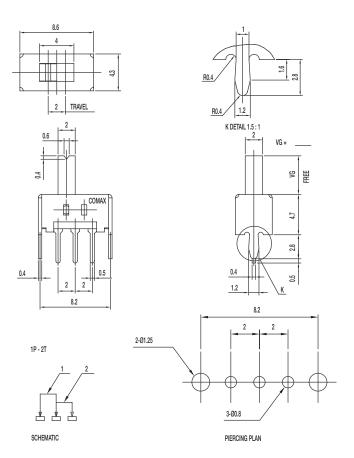
24-Ø0.8

3

PIERCING PLAN

# SS Series Miniature Slide Switches

#### SS-12D07-G NS 1P2T NON-SHORTING



#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load OPERATING FORCE:  $250 \pm 100$  gf ( $2.45 \pm 0.98N$ )

TRAVEL: 2 ± 0.3 mm

OPERATING TEMPERATURE: -20°C to 70°C

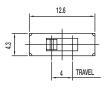
#### **Materials**

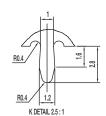
KNOB: POM FRAME: SPCC

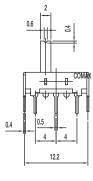
CONTACT: Silver clad TERMINAL: Silver plated

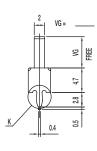


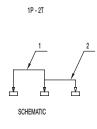
www.ckswitches.com

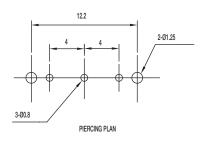












#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $150 \pm 100 \text{ gf} (1.47 \pm 0.98\text{N})$ 

TRAVEL:  $2 \pm 0.3 \text{ mm}$ 

OPERATING TEMPERATURE: -20°C to 70°C

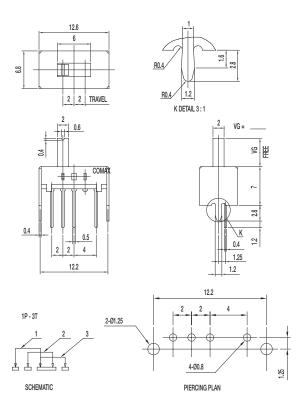
#### **Materials**

KNOB: POM FRAME: SPCC

CONTACT: Silver clad TERMINAL: Silver plated



#### SS-13D08-VG 1P3T



#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load OPERATING FORCE:  $150 \pm 50$  gf (1.47  $\pm$  0.49N)

 $200 \pm 100 \text{ gf } (1.96 \pm 0.98 \text{N})$ 

TRAVEL: 2 ± 0.3 mm

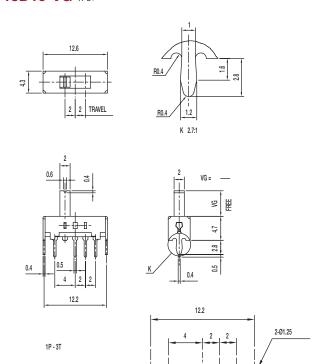
OPERATING TEMPERATURE: -20°C to 70°C

#### Materials

KNOB: POM FRAME: SPCC

CONTACT: Silver clad
TERMINAL: Silver plated

#### SS-13D16-VG 1P3T



4-Ø0.8

PIERCING PLAN

#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $200 \pm 100 \text{ gf} (1.96 \pm 0.98 \text{N})$ 

 $250 \pm 100 \text{ gf } (2.45 \pm 0.98\text{N})$ 

TRAVEL: 2 ± 0.3 mm

OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

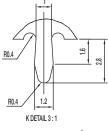
KNOB: POM FRAME: SPCC

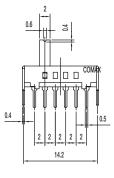
CONTACT: Silver clad TERMINAL: Silver plated

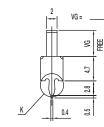


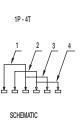
Dimensions are shown: Inches (mm) Specifications and dimensions subject to change

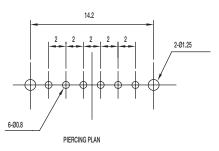
SCHEMATIC











#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load OPERATING FORCE: 200 ± 100 gf (1.96 ± 0.98N)

TRAVEL: 2 ± 0.3 mm

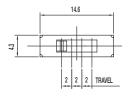
OPERATING TEMPERATURE: -20°C to 70°C

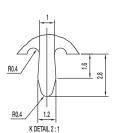
#### **Materials**

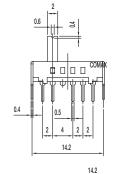
KNOB: POM FRAME: SPCC

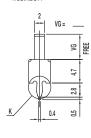
CONTACT: Silver clad TERMINAL: Silver plated

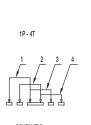
#### SS-14D07-VG 1P4T

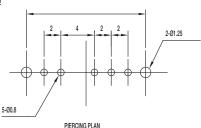












#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE: 200  $\pm$  100 gf  $\,$  (1.96  $\pm$  0.98N)

TRAVEL: 2 ± 0.3 mm

OPERATING TEMPERATURE: -20°C to 70°C

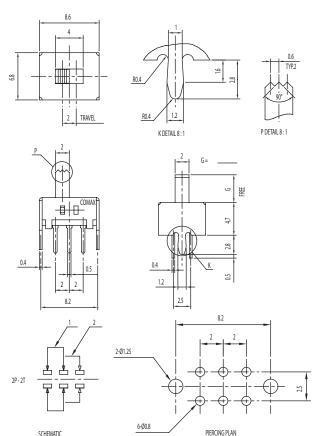
#### **Materials**

KNOB: POM FRAME: SPCC

CONTACT: Silver clad TERMINAL: Silver plated



#### SS-22D07-VG S DPDT SHORTING



#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $250 \pm 100 \text{ gf} (2.45 \pm 0.98 \text{N})$ 

TRAVEL: 2 ± 0.3 mm

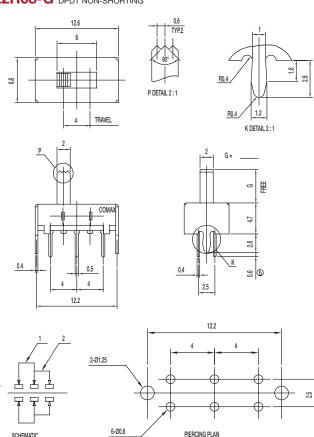
OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

KNOB: POM FRAME: SPCC

CONTACT: Silver clad TERMINAL: Silver plated

#### SS-22H08-G DPDT NON-SHORTING



#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load OPERATING FORCE:  $200 \pm 100 \text{ gf} (1.96 \pm 0.98 \text{N})$ 

TRAVEL: 4 ± 0.3 mm

OPERATING TEMPERATURE: -20°C to 70°C

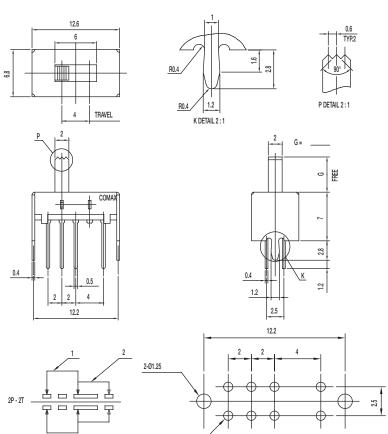
#### **Materials**

KNOB: POM FRAME: SPCC

CONTACT: Silver clad TERMINAL: Silver plated



Dimensions are shown: Inches (mm) Specifications and dimensions subject to change



8-00.8

SCHEMATIC

PIERCING PLAN

#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $200 \pm 100 \text{ gf} (1.96 \pm 0.98 \text{N})$ 

TRAVEL: 4 ± 0.3 mm

OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

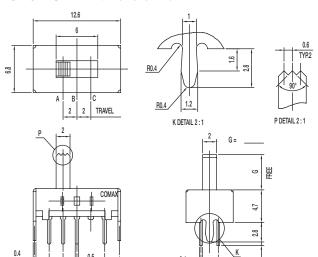
KNOB: POM FRAME: SPCC CONTACT: Silver clad

TERMINAL: Silver plated



I-104

#### SS-23D07-G PA 2P3T NON-SHORTING



#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $250 \pm 150 \text{ gf} (2.45 \pm 1.47 \text{N})$ 

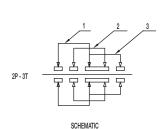
 $300 \pm 150 \text{ gf} (2.94 \pm 1.47 \text{N})$ 

TRAVEL: 2 ± 0.3 mm

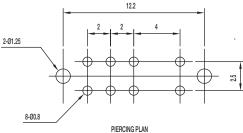
OPERATING TEMPERATURE: -20°C to 80°C

#### **Materials**

KNOB: PA FRAME: SPCC CONTACT: Silver clad TERMINAL: Silver plated

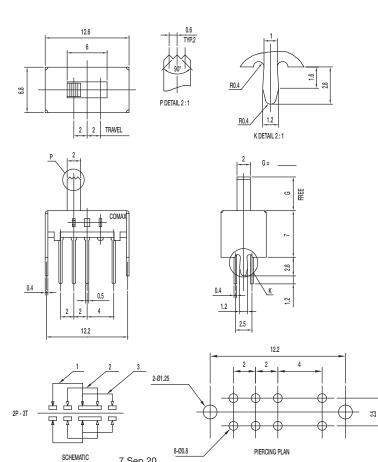


12.2



2.5

SS-23D08-G 2P3T



7 Sep 20

#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load OPERATING FORCE:  $150 \pm 50 \text{ gf} (1.47 \pm 0.49 \text{N})$ 

 $200 \pm 100 \text{ gf } (1.96 \pm 0.98 \text{N})$ 

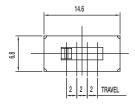
TRAVEL: 2 ± 0.3 mm

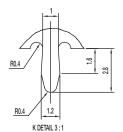
OPERATING TEMPERATURE: -20°C to 70°C

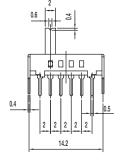
#### **Materials**

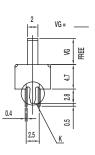
KNOB: POM FRAME: SPCC CONTACT: Silver clad TERMINAL: Silver plated

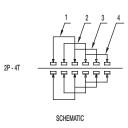
> Dimensions are shown: Inches (mm) Specifications and dimensions subject to change

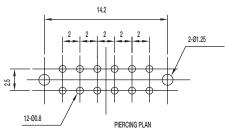












### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load OPERATING FORCE:  $250 \pm 100$  gf (2.45  $\pm 0.98N$ )

TRAVEL: 2 ± 0.3 mm

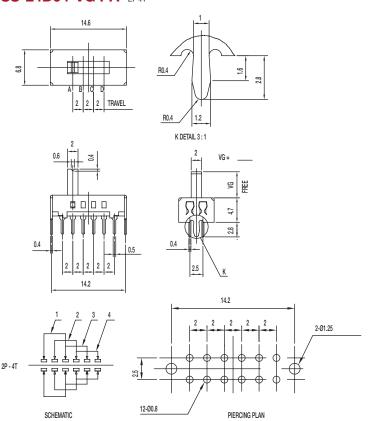
OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

KNOB: POM
FRAME: SPCC
CONTACT: Silver clad

TERMINAL: Silver plated

#### SS-24D04-VG PA 2P4T



#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH:  $500\ V\ AC\ (50\text{-}60\ Hz)$  between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE: 250 ± 100 gf (2.45 ± 0.98N)

TRAVEL:  $2 \pm 0.3 \text{ mm}$ 

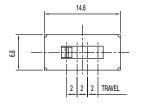
OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

KNOB: PA
FRAME: SPCC
CONTACT: Silver clad
TERMINAL: Silver plated

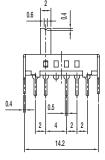


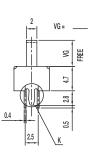
#### **SS-24D07-VG PA 2P4T**

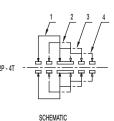


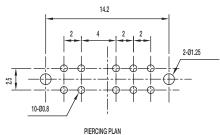


K DETAIL 2:1









#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $250 \pm 100 \text{ gf} (2.45 \pm 0.98 \text{N})$ 

TRAVEL: 2 ± 0.3 mm

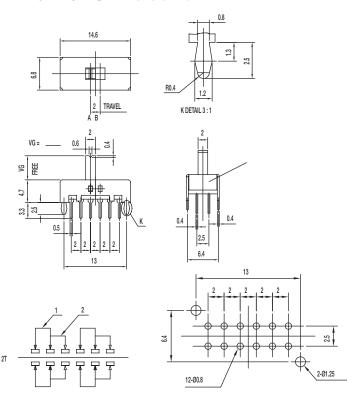
OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

KNOB: PA FRAME: SPCC

CONTACT: Silver clad TERMINAL: Silver plated





#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $250 \pm 100 \text{ gf} (2.45 \pm 0.98 \text{N})$ 

TRAVEL: 2 ± 0.3 mm

OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

KNOB: POM FRAME: SPCC CONTACT: Silver clad

TERMINAL: Silver plated

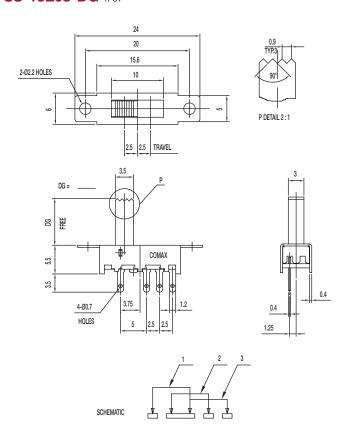
SCHEMATIC

PIERCING PLAN



## SS Series Miniature Slide Switches

#### SS-13E08-DG 1P3T



#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $200 \pm 100 \text{ gf} (1.96 \pm 0.98 \text{N})$ 

 $250 \pm 100 \text{ gf } (2.45 \pm 0.98 \text{N})$ 

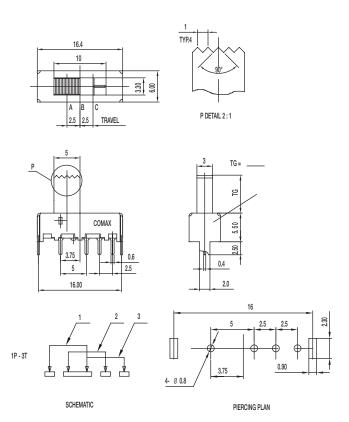
TRAVEL:  $2.5 \pm 0.3$  mm

OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

KNOB: POM
FRAME: SPCC
CONTACT: Silver clad
TERMINAL: Silver plated

#### **SS-13E29-TG** 1P3T



#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE: 200  $\pm$  100 gf (1.96  $\pm$  0.98N)

 $250 \pm 100 \text{ gf } (2.45 \pm 0.98 \text{N})$ 

TRAVEL:  $2.5 \pm 0.3$  mm

OPERATING TEMPERATURE: -20°C to 70°C

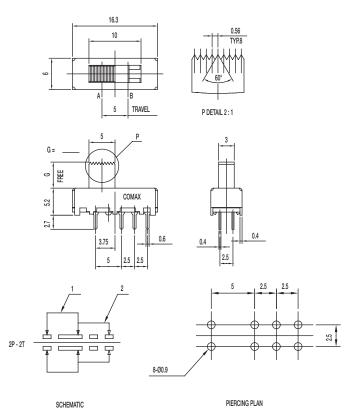
#### **Materials**

KNOB: POM FRAME: SPCC CONTACT: Silver clad

TERMINAL: Silver plated



### SS-22J08-G DPDT NON-SHORTING



#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

**Miniature Slide Switches** 

**SS Series** 

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $200 \pm 100 \text{ gf} (1.96 \pm 0.98\text{N})$ 

TRAVEL: 5 ± 0.3 mm

OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

KNOB: POM FRAME: SPCC

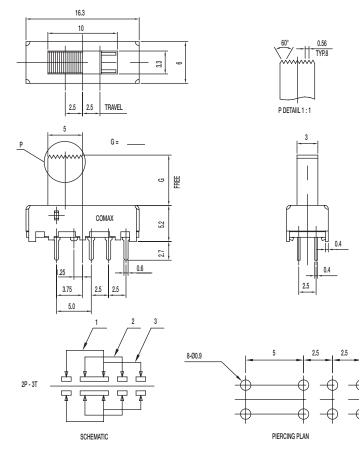
CONTACT: Silver clad TERMINAL: Silver plated



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## SS Series Miniature Slide Switches

#### SS-23E06-G 2P3T



#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $200 \pm 100 \text{ gf} (1.96 \pm 0.98 \text{N})$ 

 $250 \pm 100 \text{ gf } (2.45 \pm 0.98 \text{N})$ 

TRAVEL:  $2.5 \pm 0.3$  mm

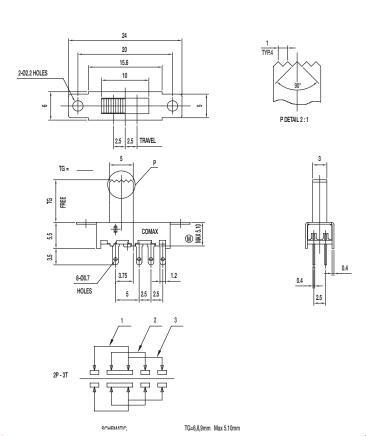
OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

KNOB: POM
FRAME: SPCC
CONTACT: Silver clad

TERMINAL: Silver plated

#### SS-23E08-TG 2P3T



#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $200 \pm 100 \text{ gf} (1.96 \pm 0.98 \text{N})$ 

 $250 \pm 100 \text{ gf } (2.45 \pm 0.98 \text{N})$ 

TRAVEL:  $2.5 \pm 0.3 \text{ mm}$ 

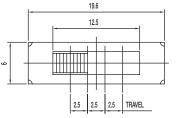
OPERATING TEMPERATURE: -20°C to 80°C

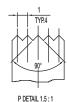
#### **Materials**

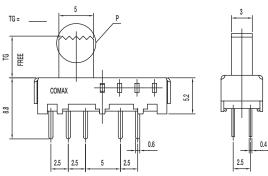
KNOB: POM
FRAME: SPCC
CONTACT: Silver clad
TERMINAL: Silver plated

Dimensions are shown: Inch (mm) Specifications and dimensions subject to change

#### SS-24E06-TG 2P4T SHORTING







### Specifications

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load OPERATING FORCE: 250 ± 100 gf (2.45 ± 0.98N)

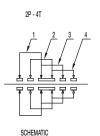
TRAVEL:  $2.5 \pm 0.3$  mm

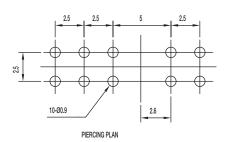
OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

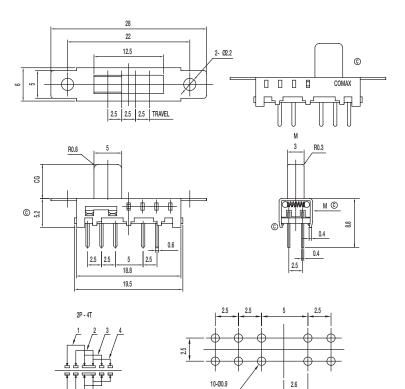
KNOB: POM FRAME: SPCC

CONTACT: Silver clad TERMINAL: Silver plated





SS-24E08-CG 2P4T



PIERCING PLAN

#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $250 \pm 100 \text{ gf}$  (2.45  $\pm 0.98 \text{N}$ )

TRAVEL:  $2.5 \pm 0.3 \text{ mm}$ 

OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

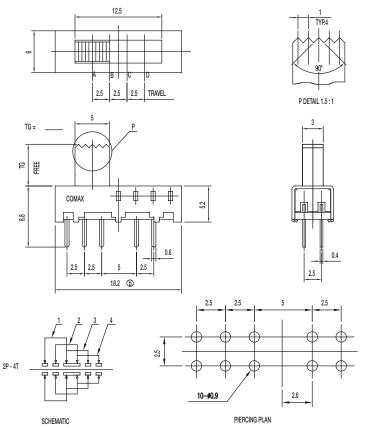
KNOB: POM FRAME: SPCC

CONTACT: Silver clad
TERMINAL: Silver plated



Dimensions are shown: Inches (mm) Specifications and dimensions subject to change

SCHEMATIC



#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load OPERATING FORCE: 250 ± 100 gf (2.45 ± 0.98N)

TRAVEL:  $2.5 \pm 0.3$  mm

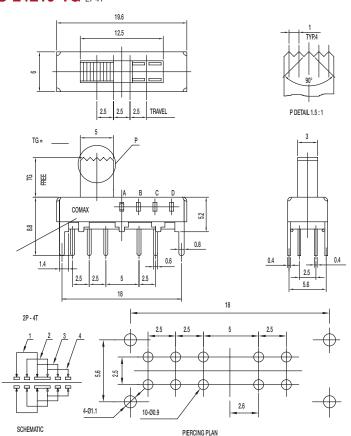
OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

KNOB: POM FRAME: SPCC

CONTACT: Silver clad
TERMINAL: Silver plated

#### SS-24E10-TG 2P4T



#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $250 \pm 100 \text{ gf} (2.45 \pm 0.98 \text{N})$ 

TRAVEL:  $2.5 \pm 0.3 \text{ mm}$ 

OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

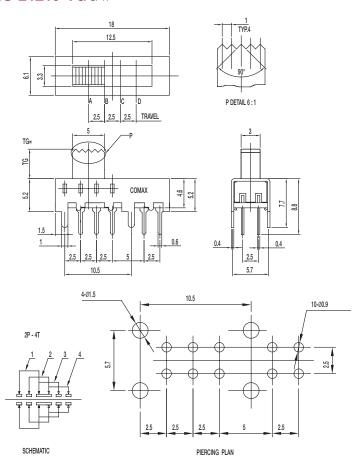
KNOB: POM FRAME: SPCC

CONTACT: Silver clad TERMINAL: Silver plated



# SS Series Miniature Slide Switches

#### SS-24E19-TG 2P4T



#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $250 \pm 100 \text{ gf} (2.45 \pm 0.98 \text{N})$ 

TRAVEL:  $2.5 \pm 0.3 \text{ mm}$ 

OPERATING TEMPERATURE: -10°C to 60°C

#### **Materials**

KNOB: POM FRAME: SPCC

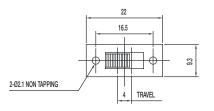
CONTACT: Silver clad TERMINAL: Silver plated

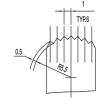


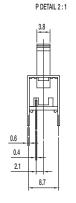
www.ckswitches.com

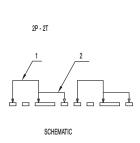
# SS Series Miniature Slide Switches

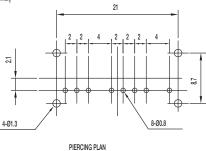
#### SS-22H18-G DPDT NON-SHORTING











#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $200 \pm 100 \text{ gf} (1.96 \pm 0.98 \text{N})$ 

TRAVEL: 4 ± 0.3 mm

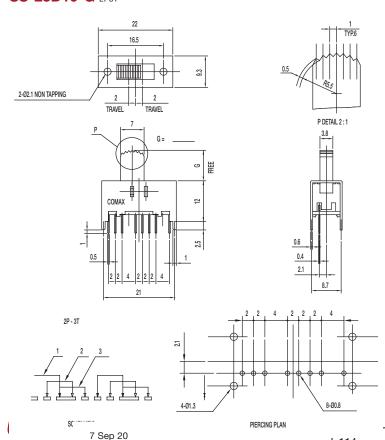
OPERATING TEMPERATURE: -10°C to 60°C

#### **Materials**

KNOB: POM FRAME: SPCC

CONTACT: Silver clad TERMINAL: Silver plated

#### SS-23D10-G 2P3T



#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $200 \pm 100 \text{ gf} (1.96 \pm 0.98\text{N})$ 

 $300 \pm 150 \text{ gf } (2.94 \pm 1.47 \text{N})$ 

TRAVEL: 2 ± 0.3 mm

OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

I-114

KNOB: POM FRAME: SPCC

CONTACT: Silver clad TERMINAL: Silver plated

Dimensions are shown: Inch (mm) Specifications and dimensions subject to change

# Slide

#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $200 \pm 100 \text{ gf} (1.96 \pm 0.98\text{N})$ 

 $300 \pm 100 \text{ gf } (2.94 \pm 0.98\text{N}); 450 \pm 150 \text{ gf } (4.41 \pm 1.47\text{N})$ 

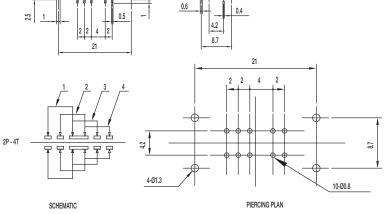
TRAVEL: 2 ± 0.3 mm

OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

KNOB: POM
FRAME: SPCC

CONTACT: Silver clad
TERMINAL: Silver plated



P DETAIL 2:1

#### SS-43D01-G 4P3T

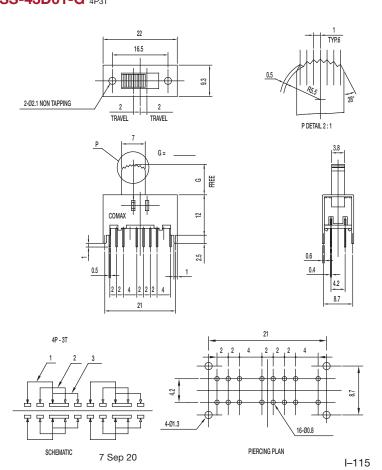
SS-24D01-M 2P4T

뿚

12

11.5

TRAVEL



#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open

terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles with load

OPERATING FORCE:  $200 \pm 100 \text{ gf}$  (1.96  $\pm 0.98\text{N}$ )

300 ± 150 gf (2.94 ± 1.47N)

TRAVEL: 2 ± 0.3 mm

OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

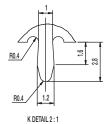
KNOB: POM
FRAME: SPCC
CONTACT: Silver clad
TERMINAL: Silver plated

Dimensions are shown: Inches (mm) Specifications and dimensions subject to change 14.6

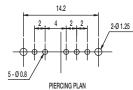
TRAVEL

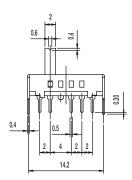


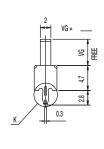












#### **Specifications**

CONTACT RATING: 0.3A @ 30 VDC

INITIAL CONTACT RESISTANCE: 30 m ohms max. INSULATION RESISTANCE: 100 M ohms min.

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz) between open terminals and between the frame and terminal.

OPERATING LIFE: 10,000 cycles without load; 5,000

cycles with load

OPERATING FORCE:  $250 \pm 100 \text{ gf} (2.45 \pm 0.98 \text{N})$ 

TRAVEL:  $2 \pm 0.3 \text{ mm}$ 

OPERATING TEMPERATURE: -20°C to 70°C

#### **Materials**

KNOB: PA FRAME: SPCC

CONTACT: Silver clad TERMINAL: Silver plated

### **Mouser Electronics**

**Authorized Distributor** 

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

#### **C&K Switches:**

\$\ \text{SS-12D07-VG 4 NS GA PA \$\text{SS-13D16-VG 4 PA \$\text{SS-22F02-DG 6 (L) } \text{SS-24E06-TG 5 (P) } \text{SS-44D04-G 4 } \text{SS-4202-1 } \text{SS12D01G3ENS } \text{SS12D06G2ENS } \text{SS12D07G3NS } \text{SS12D07G4NS } \text{SS12D07G5NS } \text{SS12D07VG2NSLTW} \text{SS12D07VG3NS } \text{SS12D07VG3NSLTW } \text{SS12D07VG4NS } \text{SS12D07VG4NSGAPA } \text{SS12D07VG4V1NS } \text{SS12D07VG6NS } \text{SS12D07VG7NS } \text{SS12D11G3ENS } \text{SS12D16G3ENS } \text{SS12D19G1.5NSLT } \text{SS12D19G2NSLT } \text{SS12D19G2NSLT } \text{SS12D24PG1.8ENSPA } \text{SS12E02R2.7NST } \text{SS12F02G5 } \text{SS12F13G4BL } \text{SS12F13G5BL } \text{SS12F13G5ZBL } \text{SS12F13G9B } \text{SS12F13G9B } \text{SS12F14G5B } \text{SS12F15G5B } \text{SS12F13G4BL } \text{SS12F13G5ZBL } \text{SS12F13G9B } \text{SS12F13G9B } \text{SS12F14G5B } \text{SS12F15G5B } \text{SS12F15G5BLT2 } \text{SS12F16G4ZB } \text{SS12F20G7 } \text{SS12F47G2 } \text{SS12F47G4 } \text{SS12F47G2 } \text{SS12F47G4 } \text{SS12F47G2 } \text{SS12F47G4 } \text{SS12F47G5 } \text{SS12F48G11 } \text{SS12F48G12 } \text{SS12F48G3 } \text{SS12F48G4 } \text{SS12F48G5 } \text{SS12F48G5PAH } \text{SS12F46G6 } \text{SS12F46G6 } \text{SS12F46G6 } \text{SS12F46G6 } \text{SS12F60G6 } \text{SS12F60G6 } \text{SS12F60G6 } \text{SS12F50G6 } \text{SS12F50G6 } \text{SS12F50G7LT } \text{SS12F50G8 } \text{SS12F53G8 } \text{SS12F60G4.5 } \text{SS12F60G6 } \text{SS12F60G6 } \text{SS12F30BG2.5 } \text{SS13D01G2 } \text{SS13D01G5 } \text{SS13D03G4 } \text{SS13D16VG4PA } \text{SS13D16VG5PA } \text{SS13D18G7 } \text{SS14D07VG2LT } \text{SS14D07VG2LT } \text{SS14D07VG3NS } \text{SS22D07VG4NS } \text{SS22D07VG5NS } \text{SS22D07VG5