### **Excellent Integrated System Limited**

Stocking Distributor

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NKK Switches SM0320102

For any questions, you can email us directly: <a href="mailto:sales@integrated-circuit.com">sales@integrated-circuit.com</a>



### **Series SM**

#### **Ultra-Miniature Slides**

# General Specifications

#### **Electrical Capacity (Resistive Load)**

500mA @ 12V DC Maximum Level:

Minimum Level: 1.0mA maximum @ 10mV AC/DC maximum

#### Other Ratings

30 milliohms maximum Contact Resistance:

**Insulation Resistance:** 100 megohms minimum @ 500V DC **Dielectric Strength:** 500V AC for 1 minute minimum Mechanical Life: 1,000 operations minimum **Electrical Life:** 1,000 operations minimum

**Nominal Operating Force:** 2.0N

**Contact Timing:** Nonshorting (Break-before-make)

Total Travel: .063" (1.6mm)

#### Materials & Finishes

**Actuator:** Glass fiber reinforced polyester (UL94V-0) Case: Glass fiber reinforced polyamide (UL94V-0) Lower Case: Glass fiber reinforced polyester (UL94V-0) **Movable Contacts:** Brass with gold plating over nickel **Stationary Contacts** Brass with gold plating over nickel

Terminals: Brass with gold plating over nickel

#### **Environmental Data**

**Operating Temp Range:** -40°C through +85°C (-40°F through +185°F)

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

Vibration: 10 ~ 55Hz with peak-to-peak amplitude of 1.5mm 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)

#### **PCB Processing**

Wave Soldering Recommended: See Profile A in Supplement section. Soldering:

Manual Soldering: See Profile B in Supplement section.

These devices are not process sealed. Hand clean locally using alcohol based solution. Cleaning:

#### **Standards & Certifications**

Flammability Standards: Actuator and lower case of glass fiber reinforced polyester and case of glass fiber reinforced

polyamide UL94V-0

The SM series devices have not been tested for UL recognition and CSA certification.

These switches are designed for use in a low-voltage, low-current circuit.

When used as intended in a low-voltage, low-current circuit, the results do not produce

hazardous energy.



#### **Ultra-Miniature Slides**

### **Series SM**

## Distinctive Characteristics

Very compact dimensions allow for high density, side-by-side or end-to-end mounting within tight dimensional applications.

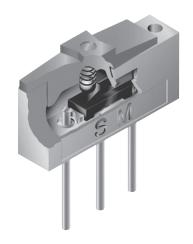
Detent mechanism provides positive actuation to indicate circuit status.

Visible indication of position by spot on top of red actuator and through window on side.

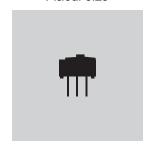
Twin sliding contact mechanism with self-cleaning action provides smooth actuation and produces high contact reliability.

.100" x .100" (2.54mm x .2.54mm) center-to-center inch terminal spacing allows standard PC board mounting in side-by-side or end-to-end arrangements.

Insert molded terminals lock out flux, solvents, and other contaminants.



Actual Size



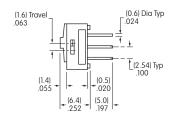


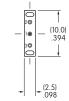
#### **POLES & CIRCUITS Slide Position Throw & Schematics Connected Terminals** Center Left Center Left Right Right Note: Terminal numbers are on the switch. Model SM0320102 ON NONE ON 1-3 **OPEN** 1-2 **SPDT**

#### TYPICAL SWITCH DIMENSIONS

Single Pole • Straight PC











Actuator shown in RIGHT position

SM0320102

www.nkk.com **H43**  Toggles

Rockers

Keylocks Programmable Illuminated PB Pushbuttons



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Touch

Indicators

Supplement | Accessories