

# Sub-Miniature Rocker Switches – PKM series



## SPECIFICATIONS

**CONTACT RATING:** Dependent upon contact material. See [Contact Plating & Ratings](#).

**MECHANICAL LIFE:** 30,000 make-and-break cycles.

**CONTACT RESISTANCE:** 20 mΩ max. initial @ 2-4VDC 100mA for both silver and gold plated contacts.

**INSULATION RESISTANCE:** 1,000 MΩmin.

**DIELECTRIC STRENGTH:** 1,000 Vrms min. @sea level.

**OPERATING TEMPERATURE:** -40°C to 85°C.

## MATERIALS

**CASE:** Diallyl phthalate (DAP) (UL94v-0).

**ACTUATOR:** Nylon, black std.

**BUSHING:** Brass or Zinc, nickel plated.

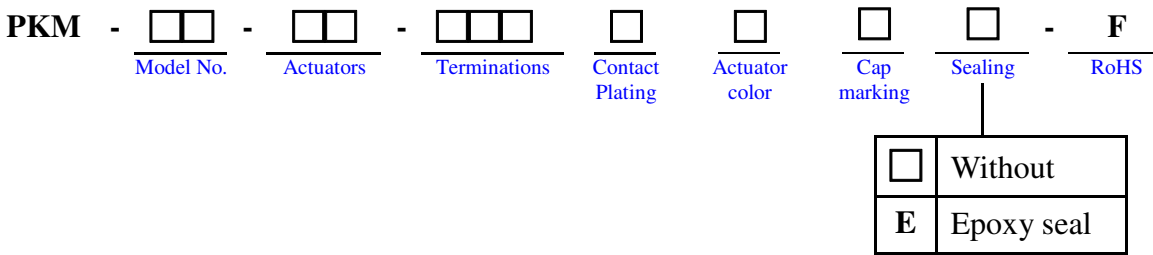
**HOUSING:** Stainless steel.

**SWITCH SUPPORT:** SUS or Brass, tin plated.

**CONTACT / TERMINAL:** Copper alloy or Brass, with silver or gold plated. See [Contact Plating & Ratings](#).

models available, consult sales representatives.

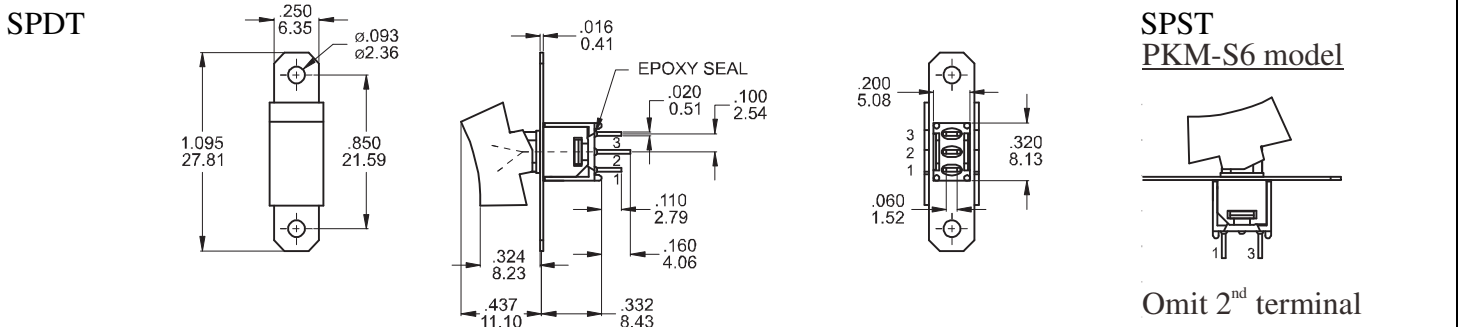
## PART NUMBERING SYSTEM



**Model No./ Switching function** ( )= Momentary Unit: Inch/ mm

| SPDT                |                    |      | SPDT      |                     |      | SPST      |                    |                     |      |      |     |
|---------------------|--------------------|------|-----------|---------------------|------|-----------|--------------------|---------------------|------|------|-----|
| Model No.           | Switching function |      | Model No. | Switching function  |      | Model No. | Switching function |                     |      |      |     |
|                     |                    |      |           |                     |      |           |                    |                     |      |      |     |
| <b>S1</b>           | On                 | None | On        | <b>S2</b>           | On   | Off       | On                 | <b>S6</b>           | Off  | None | On  |
| <b>S3</b>           | On                 | None | (On)      | <b>S4</b>           | (On) | Off       | (On)               |                     |      |      |     |
|                     |                    |      |           | <b>S5</b>           | On   | Off       | (On)               |                     |      |      |     |
| Connected terminals | 2-3                | N/A  | 2-1       | Connected terminals | 2-3  | Open      | 2-1                | Connected terminals | Open | N/A  | 3-1 |
| Schematic           |                    |      | Schematic |                     |      |           |                    |                     |      |      |     |

Part No. Shown: PKM-S□-R1-M1□2E-F



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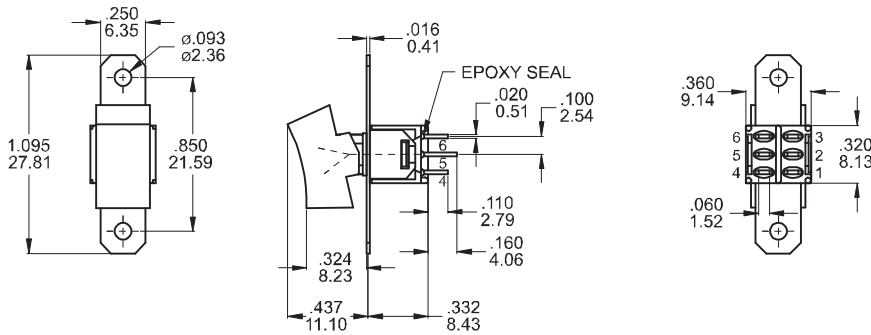
**Model No./ Switching function** ( )= Momentary

Unit: Inch/ mm

| DPDT                |                    |      |         | DPDT                |                    |      |         |
|---------------------|--------------------|------|---------|---------------------|--------------------|------|---------|
| Model No.           | Switching function |      |         | Model No.           | Switching function |      |         |
|                     |                    |      |         |                     |                    |      |         |
| <b>D1</b>           | On                 | None | On      | <b>D2</b>           | On                 | Off  | On      |
| <b>D3</b>           | On                 | None | (On)    |                     |                    |      |         |
| Connected terminals | 2-3,5-6            | N/A  | 2-1,5-4 | Connected terminals | 2-3,5-6            | Open | 2-1,5-4 |
| Schematic           |                    |      |         | Schematic           |                    |      |         |

Part No. Shown: PKM-D□-R1-M1□2E-F

DPDT



## Actuators

Unit: Inch/ mm

R1, R2, R3 actuators with support standard only with M1 termination. For other terminations, no support required.

| R1             | R2             | R3             |
|----------------|----------------|----------------|
|                |                |                |
| Panel Mounting | Panel Mounting | Panel Mounting |
|                |                |                |

## Terminations & Sealing

Unit: Inch/ mm

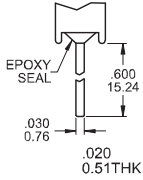
| M1□□□ Solder, W/o epoxy seal<br>M1□□□E Solder, With epoxy seal |      | M2□□□ PCB through hole, W/o epoxy seal<br>M2□□□E PCB through hole, with epoxy seal |      |
|--|------|--|------|
| SPDT   | DPDT | SPDT   | DPDT |
|  |      |  |      |



## Terminations & Sealing

Unit: Inch/ mm

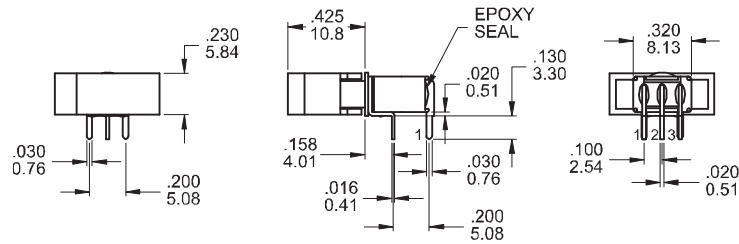
**M51**□□□ Wire wrap , without epoxy seal  
**M51**□□□**E** Wire wrap , with epoxy seal



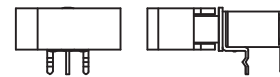
## M6□ Right angle P.C. Mount

Part No. Shown: PKM-S□-R2-M6□□2E-F

SPDT

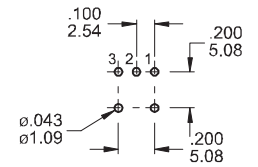


Options:



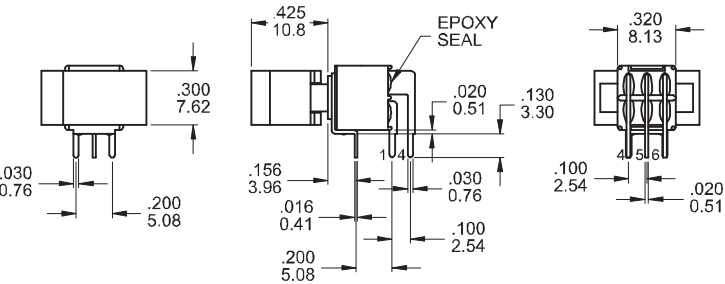
M6N Snap-in

## P. C. B. Layout

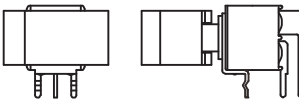


Part No. Shown: PKM-D□-R1-M6□□2E-F

DPDT

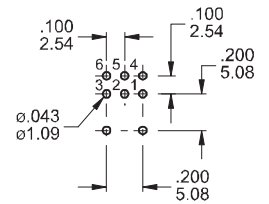


Options:



M6N Snap-in

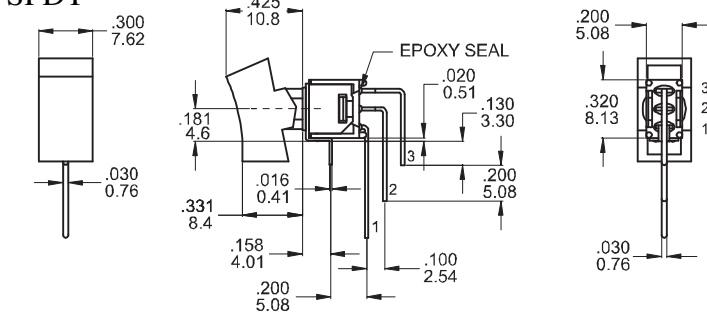
## P. C. B. Layout



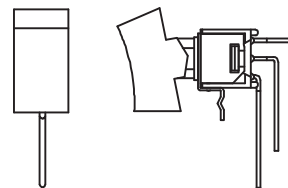
## M7□ Vertical right angle P.C. Mount

Part No. Shown: PKM-S□-R1-M7□□2E-F

SPDT

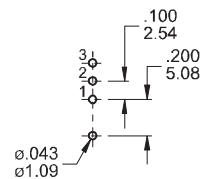


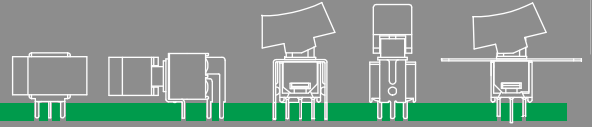
Options:



M7N Snap-in

## P. C. B. Layout





## Terminations & Sealing

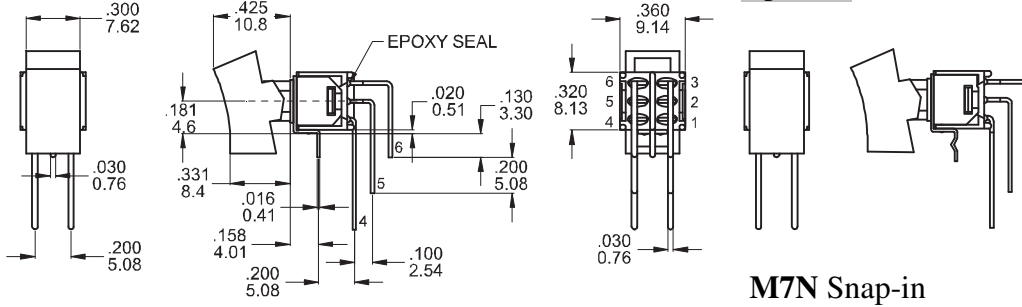
Unit: Inch/ mm

### M7 Vertical right angle P.C. Mount

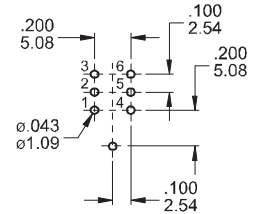
Part No. Shown: PKM-D-R1-M7-2E-F

DPDT

Options:



### P. C. B. Layout

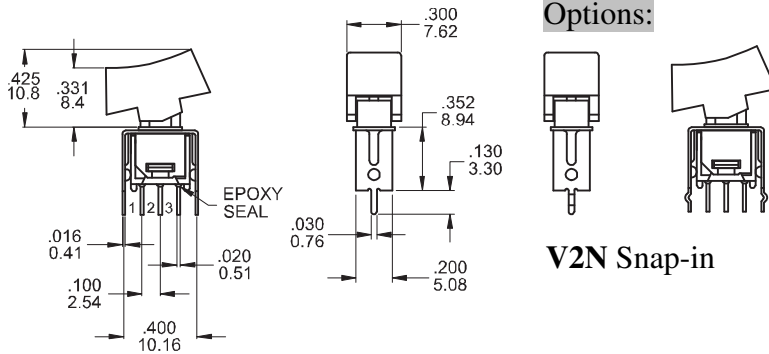


### V Vertical bracket P.C. Mount

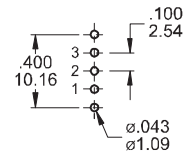
Part No. Shown: PKM-S-R1-V2-2E-F

SPDT

Options:



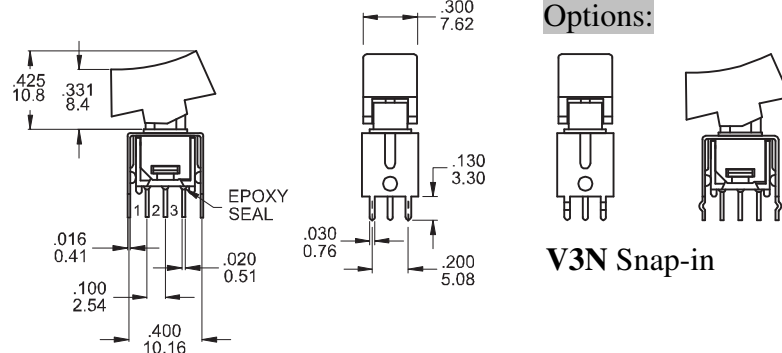
### P. C. B. Layout



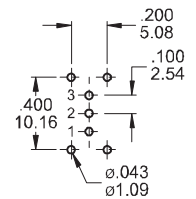
Part No. Shown: PKM-S-R1-V3-2E-F

SPDT

Options:



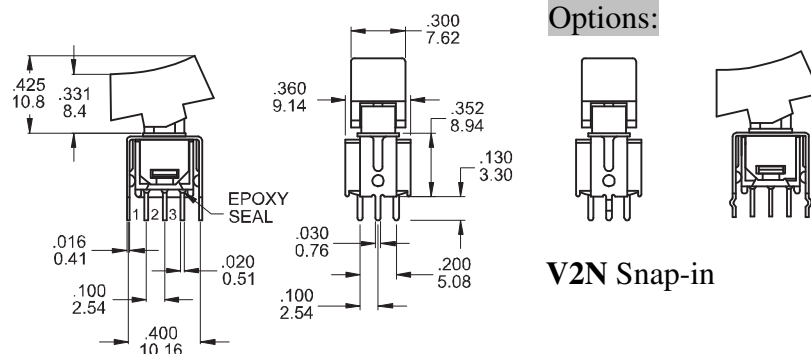
### P. C. B. Layout



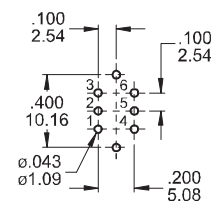
Part No. Shown: PKM-D-R1-V2-2E-F

DPDT

Options:



### P. C. B. Layout





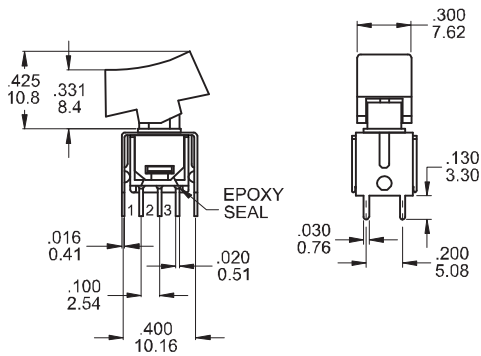
## Terminations & Sealing

Unit: Inch/ mm

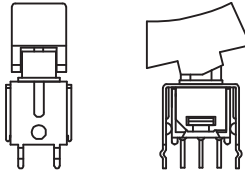
### V Vertical bracket P.C. Mount

Part No. Shown: PKM-D-R1-V3-2E-F

DPDT

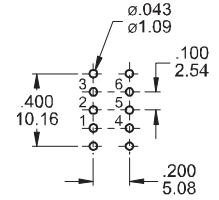


Options:



V3N Snap-in

### P. C. B. Layout



## Contact Plating & Ratings

| Option code | Contact plating  | Terminal plating | Ratings   |
|-------------|------------------|------------------|---|
| <b>G</b>    | Gold             | Gold             | 0.4 Volt-Amps ( VA ) max. @ 20V max. ( AC or DC ) |
| <b>S</b>    | Silver           | Silver           | 3 Amps with resistant load @ 120VAC or 28VDC      |
| <b>A</b>    | Gold over silver | Gold over silver | 1 Amps with resistant load @ 250VAC               |

## SOLDERING PROCESSES

Manual soldering: Use soldering iron of 30 watts, controlled at 350°C approximately 5 seconds while applying solder.

Wave soldering: Recommended soldering temperature: 270 ± 5°C.

Duration of solder immersion: Max 5 sec. (PCB is 1.6mm in thickness).

## Frame color & Actuator color

|                          |             |
|--------------------------|-------------|
| <input type="checkbox"/> | Without     |
| <b>1</b>                 | White       |
| <b>2</b>                 | Black(STD.) |
| <b>3</b>                 | Red         |
| <b>4</b>                 | Orange      |
| <b>5</b>                 | Yellow      |
| <b>6</b>                 | Green       |
| <b>7</b>                 | Blue        |
| <b>8</b>                 | Brown       |
| <b>9</b>                 | Gray        |

## Cap Marking

|                          |         |
|--------------------------|---------|
| <input type="checkbox"/> | Without |
| <b>1</b>                 |         |
| <b>2</b>                 |         |
| <b>5</b>                 |         |
| <b>6</b>                 |         |
| <b>7</b>                 |         |
| <b>8</b>                 |         |
| <b>9</b>                 |         |
| <b>F</b>                 |         |