



KSD-3A Series

Sealed Miniature Rocker & Paddle Switches

IP 67
ACCORDING TO
EN 60529:1991+A1:2001
IEC 60529:2001

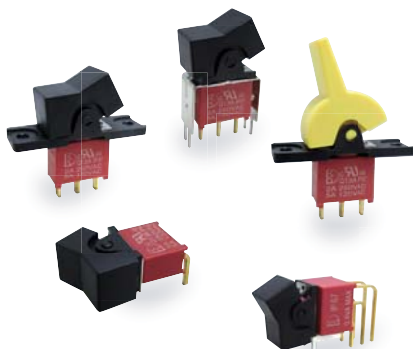
UL US
E 187490

RoHS
compliant

lead-free

Rocker Switches

KSD SWITCH CONNECTOR



SPECIFICATIONS

CONTACT RATING: Dependent upon contact material, see page 63.

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

CONTACT RESISTANCE: 10 mΩ max. (initial value) @ 2-4VDC
100mA for both silver and gold plated contacts.

INSULATION RESISTANCE: 1,000 MΩ min./1000VDC

DIELECTRIC STRENGTH: 1,000 Vrms min. @ sea level. (initial value)

OPERATING TEMPERATURE: -40°C to 85°C.

MATERIALS

CASE & BUSHING : Glass filled nylon 6/6, flame retardant,
heat stabilized (UL94V-0).

ACTUATOR: Black nylon, internal o-ring sealed.

SWITCH SUPPORT: Brass or steel, tin plated.

ACTUATOR PIVOT & MOUNTING BRACKET: Nylon.

ACTUATOR PIVOT RETAINER: Stainless steel.

TERMINAL/CONTACT: Copper with silver or gold plated.
(See page 63)

HOW TO ORDER

MODEL NO.	ACTUATOR	ACTUATOR COLOR	ACTUATOR COLOR	TERMINAL TYPE	TERMINAL PLATING	SEAL	RoHS SOLDERING
SP	R1 13.49 long rocker - support R2 Lever - support * R11 9.19 long rocker - support R12 Lever - support * R13 Lever - support * R16 Lever - support * RB 17.75 long rocker - support					E EPOXY (std)	
3AS1 ON-NONE-ON					Q Gold flash over silver R Gold C Gold over silver		
3AS2 ON-NONE-(ON)							S RoHS & Lead Free
3AS3 ON-OFF-ON							
3AS4 (ON)-OFF-(ON)							
3AS5 ON-OFF-(ON)							
DP	P.C. Mount only J1 13.49 long rocker J2 Lever * J3 23.01 long rocker J4 Lever * J5 9.19 long rocker J6 Lever * J7 Lever * J8 Lever * JB 17.75 long rocker						
3AD1 ON-NONE-ON					M1 Solder Lug M2 PC thru-hole M51 18.70 high, wire wrap M52 24.20 high, wire wrap M53 10.55 high, wire wrap M54 26.97 high, wire wrap M6 Right angle, PC thru-hole M6N Right angle, snap-in, PC thru-hole M7 Vertical right angle, PC thru-hole		
3AD2 ON-NONE-(ON)							
3AD3 ON-OFF-ON							
3AD4 (ON)-OFF-(ON)							
3AD5 ON-OFF-(ON)							
3AD6 ON-ON-ON							
3AD7 (ON)-ON-(ON) ▲							
3AD8 ON-ON-(ON) ▲							
3P							
3A31 ON-NONE-ON							
3A32 ON-NONE-(ON)							
3A33 ON-OFF-ON							
3A34 (ON)-OFF-(ON)							
3A35 ON-OFF-(ON) ▲							

ITEM NO	COLOR
00	Without
01	White
02	Black (Std)
03	Red
04	Orange
05	Yellow
06	Green
07	Blue
09	Gray

**

▲ Please confirm the availability before order.

* The actuator mark cannot be printed
** Except standard color, for other colors information please consult sales representativity.

EXAMPLE:
3AS1R1□M1QES (STD)
└ Actuator color

3AS1R1□□M1QES
└ Actuator marking
└ Actuator color



SWITCH FUNCTION

NO. POLES	UL/CSA MODEL NO.	MODEL NO.	SWITCH FUNCTION			CONNECTED TERMINALS / SCHEMATIC			
			POS.1	POS.2	POS.3	POS.1	POS.2	POS.3	
SP	Q13A11	3AS1	ON	NONE	ON	2-3	N/A	2-1	
	Q13A12	3AS2	ON	NONE	(ON)				
	Q13A13	3AS3	ON	OFF	ON				
	Q13A14	3AS4	(ON)	OFF	(ON)				
	Q13A15	3AS5	ON	OFF	(ON)				
DP	Q13A21	3AD1	ON	NONE	ON	2-3,5-6	N/A	2-1,5-4	
	Q13A22	3AD2	ON	NONE	(ON)				
	Q13A23	3AD3	ON	OFF	ON				
	Q13A24	3AD4	(ON)	OFF	(ON)				
	Q13A25	3AD5	ON	OFF	(ON)				
	▲	Q13A27	3AD7	(ON)	ON	(ON)	2-3,5-6	2-3,5-4	2-1,5-4
	▲	Q13A28	3AD8	ON	ON	(ON)			
	3P	Q13A31	3A31	ON	NONE	ON	2-3,5-6,8-9	N/A	2-1,5-4,8-7
Q13A32		3A32	ON	NONE	(ON)				
Q13A33		3A33	ON	OFF	ON				
Q13A34		3A34	(ON)	OFF	(ON)				
▲		Q13A35	3A35	ON	OFF			(ON)	

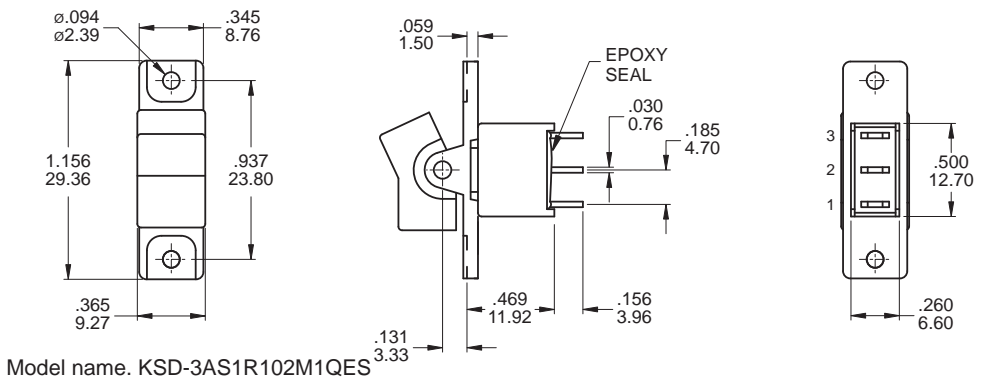
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▲ Please confirm the availability before order.

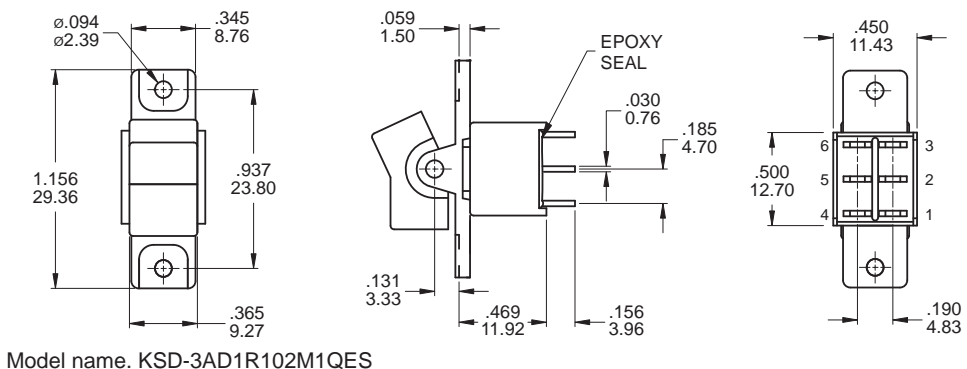
POLE OPTIONS



SPDT



DPDT





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Sealed Miniature Rocker & Paddle Switches

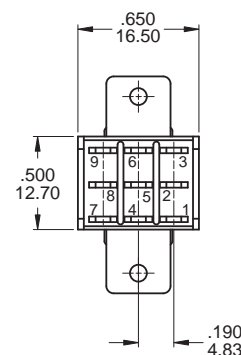
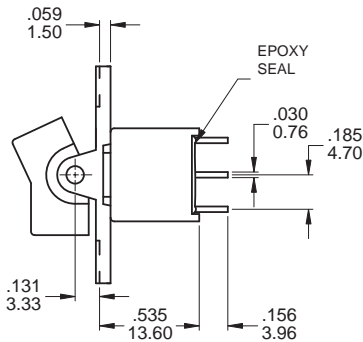
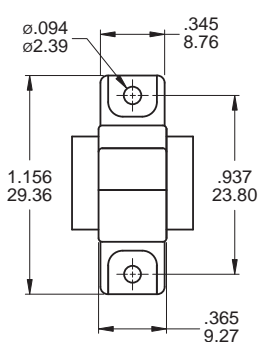
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E 187490

RoHS
compliant

lead-free

KSD-3A
Rocker Switches

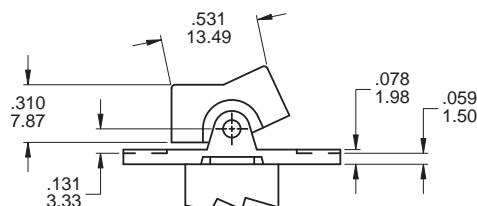
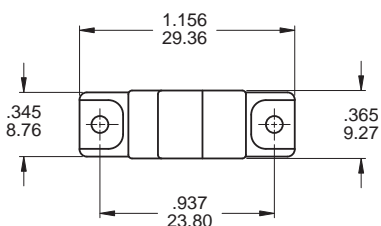


3PDT

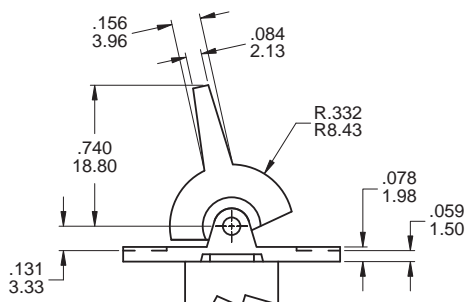
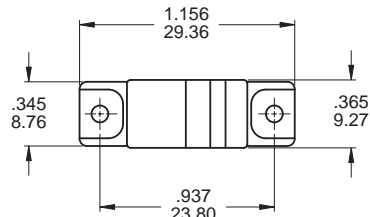
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ACTUATOR OPTIONS FOR PANEL MOUNT ONLY

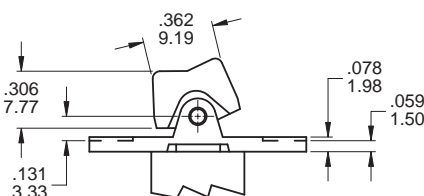
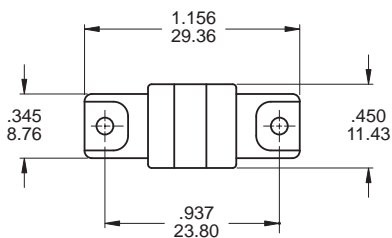
R1



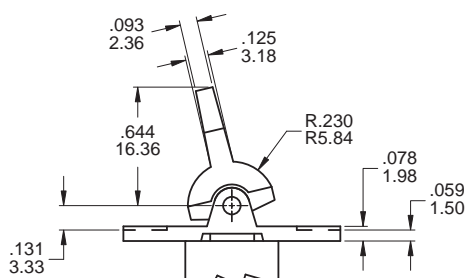
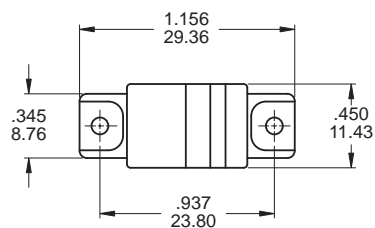
R2



R11

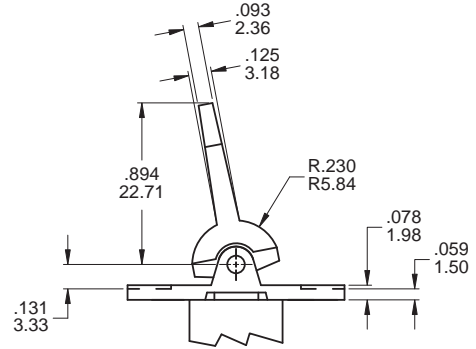
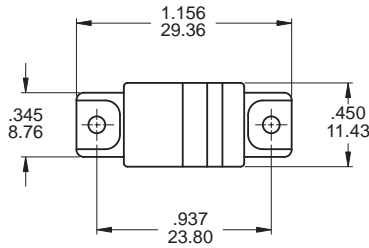


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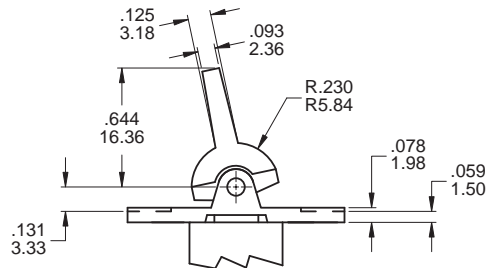
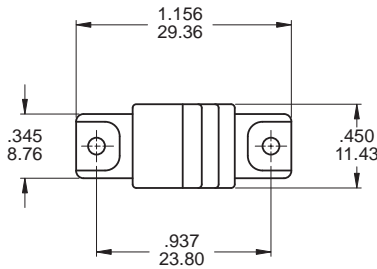




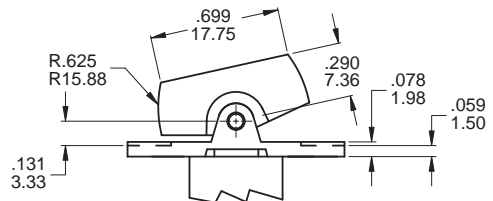
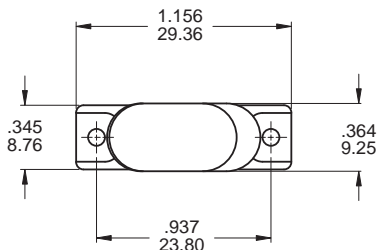
R13



R16

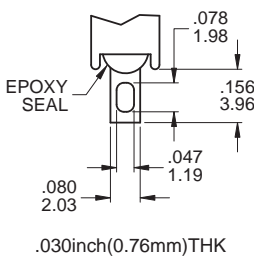


RB

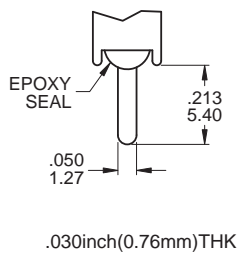


▼ TERMINAL OPTIONS

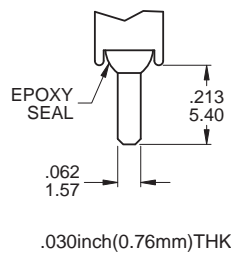
M1 Solder lug



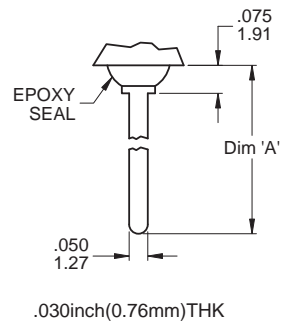
M2 PC Thru-hole



M3 Quick connect



M5 Wire Wrap



▼ OTHER TERMINAL OPTIONS

M6 Right angle P.C. Mount

M7 Right angle P.C. Mount

VS2 Vertical bracket P.C. Mount

VS3 Vertical bracket P.C. Mount

M6N Right angle P.C. Mount

with snap-in bracket

V2N Vertical bracket P.C. Mount

with snap-in bracket

OPTION CODE	DIM. 'A'
M51	.736 (18.70)
M52	.953 (24.20)
M53	.415 (10.55)
M54	1.062 (26.97)



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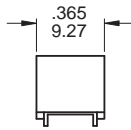
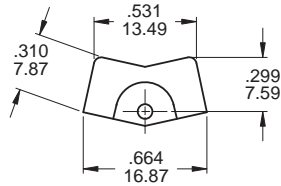
RoHS
compliant

Pb
lead-free

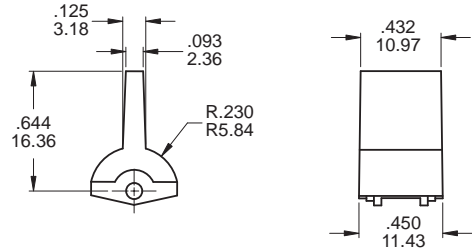
KSD-3A
Rocker
Switches

ACTUATOR OPTIONS FOR P.C. MOUNT ONLY

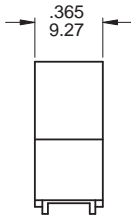
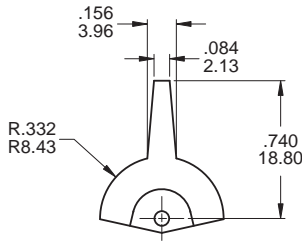
J1



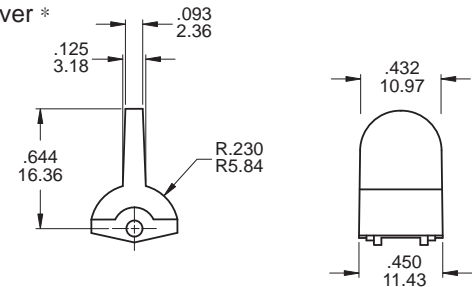
J6 Lever *



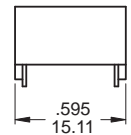
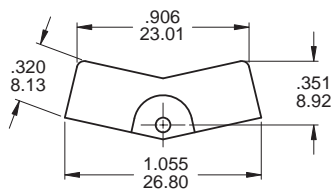
J2 Lever *



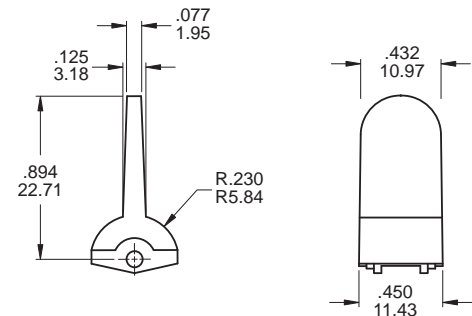
J7 Lever *



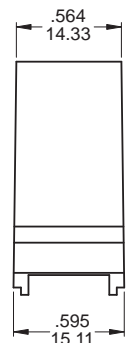
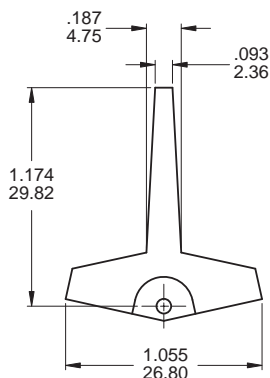
J3



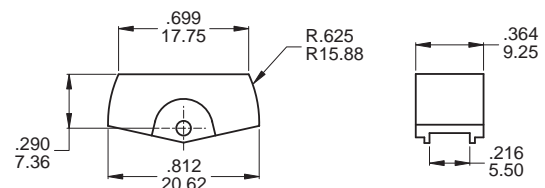
J8 Lever *



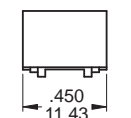
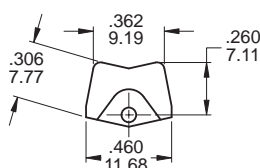
J4 Lever *



JB



J5



ACTUATOR COLORS:

ITEM NO	COLOR
01	White
02	Black (Std)
03	Red
04	Orange
05	Yellow
06	Green
07	Blue
09	Gray

**

* The actuator mark cannot be printed
 ** Except standard color, for other colors information please consult sales representativity.

EXAMPLE:

3AS1J1□□QES

□ Terminal type
 □ Actuator color

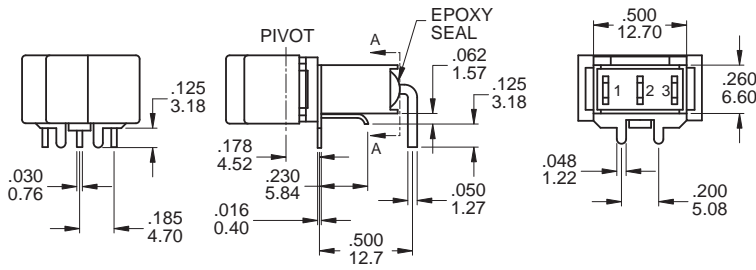
3AS1J1□□□QES

□ Terminal type
 □ Actuator marking
 □ Actuator color

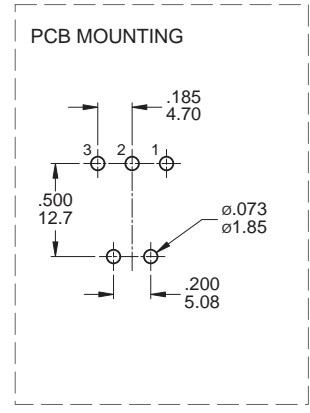


▼ TERMINAL OPTIONS

M6 (M6N - Snap-in)



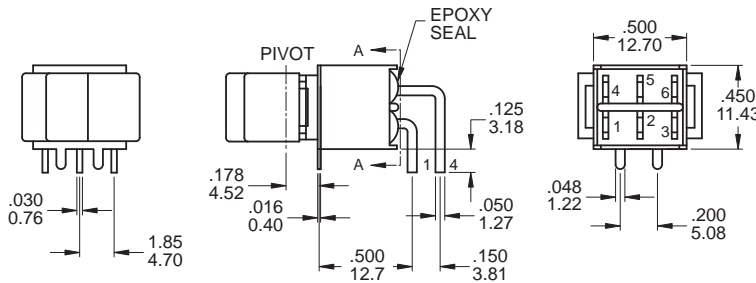
Section drawing for A-A.



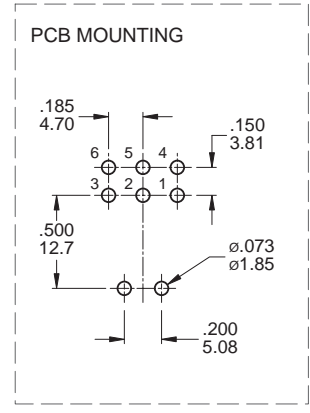
SPDT

Model name. KSD-3AS1J102M6QES

M6 (M6N - Snap-in)



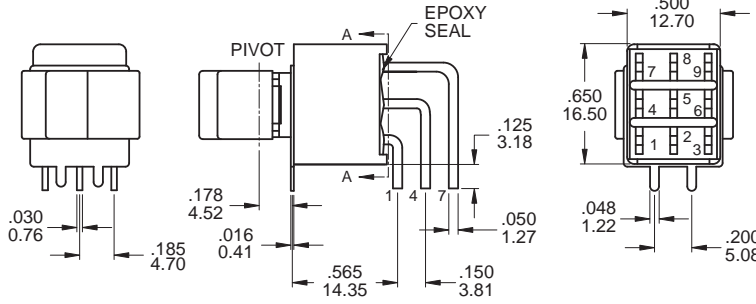
Section drawing for A-A.



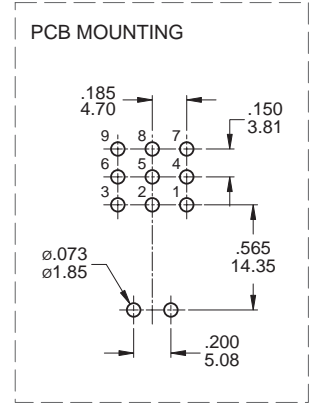
DPDT

Model name. KSD-3AD1J102M6QES

M6



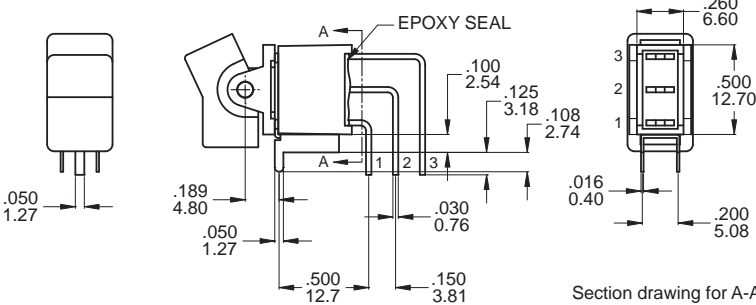
Section drawing for A-A.



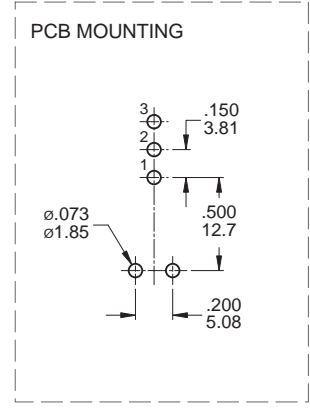
3PDT

Model name. KSD-3A31J102M6RES

M7



Section drawing for A-A.



SPDT

Model name. KSD-3AS1J102M7RES

KSD-3A
Rocker Switches



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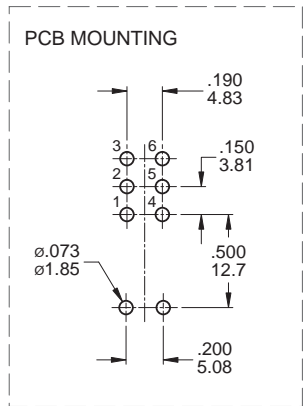
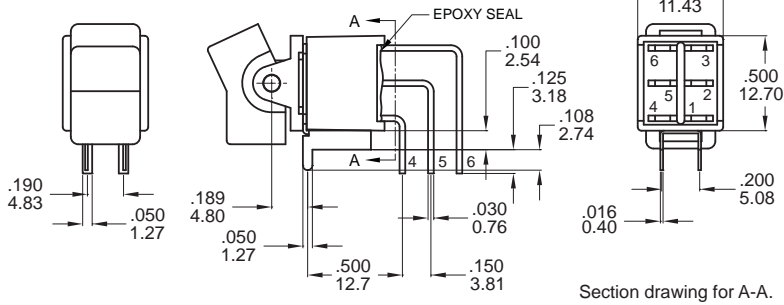
UL US
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RoHS
compliant

Pb
lead-free

KSD-3A
Rocker Switches

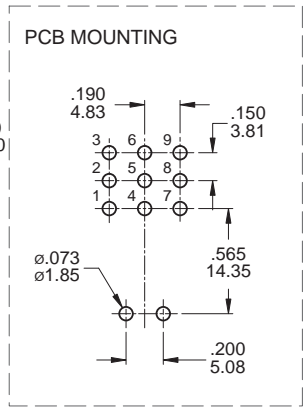
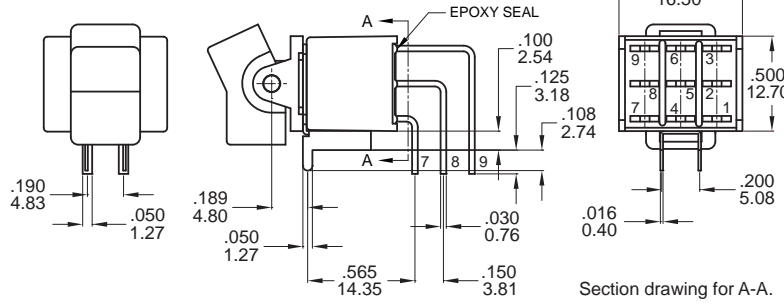
M7



DPDT

Model name. KSD-3AD1J102M7RES

M7

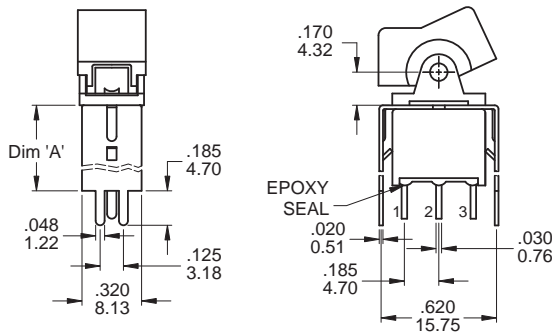


3PDT

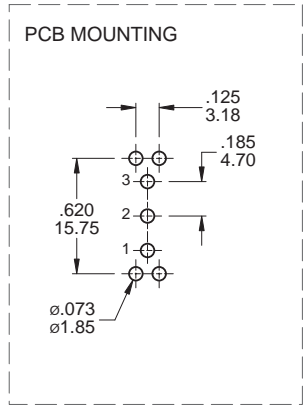
Model name. KSD-3A31J102M7RES

VS2 / VS3

(V2N - Snap-in)



OPTION CODE	DIM. 'A'
VS2 (V2N)	.460 11.68
VS3	.630 16.00

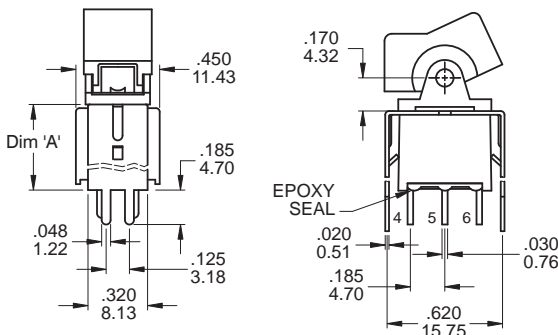


SPDT

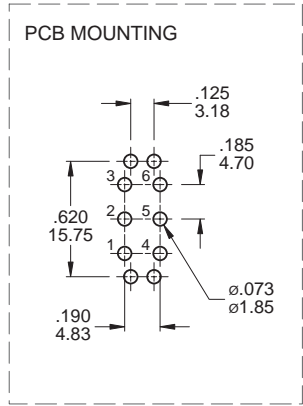
Model name. KSD-3AS1J102VS2QES

VS2 / VS3

(V2N - Snap-in)



OPTION CODE	DIM. 'A'
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VS3	.630 16.00

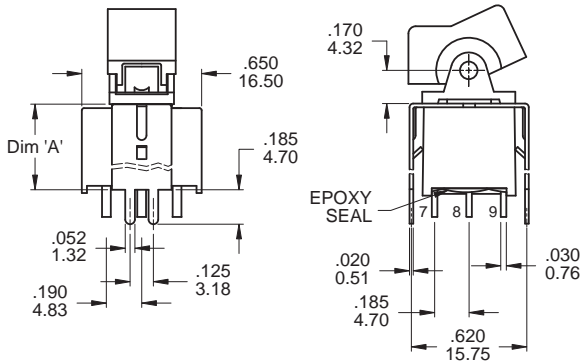


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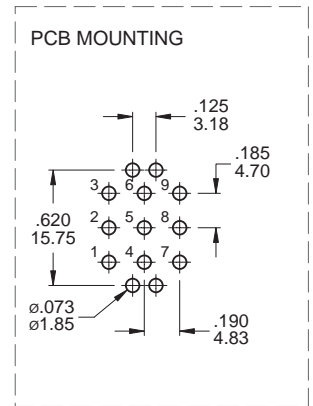
Model name. KSD-3AD1J102VS2QES



VS2 - VS3 (V2N - Snap-in)



OPTION CODE	DIM. 'A'
VS2 (V2N)	.460 11.68
VS3	.630 16.00



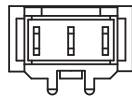
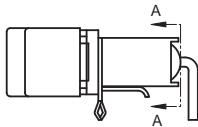
3PDT

Model name: KSD-3A31J102VS2RES

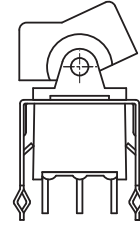
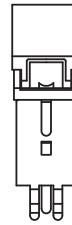
▼ TERMINAL OPTIONS

M6N

V2N



SECTION A-A



Note: The terminal type of M6N are not suitable for 3PDT.

▼ CONTACT & TERMINAL PLATING OPTIONS

	CONTACT PLATING	TERMINAL PLATING	RATINGS
Q	Silver	Gold flash over silver	5 Amps with resistant load @ 120VAC or 28VDC
C	Gold over Silver	Gold over silver	2 Amps with resistant load @ 250VAC
R	Gold	Gold	0.4 Volt - Amps (VA) max. @ 20V max. (AC or DC)

▼ SOLDERING PROCESS

MANUAL SOLDERING: Use 30 watts soldering iron and controlled the temperature at 350°.

Duration of solder immersion: Max. 5 sec.

WAVE SOLDERING: Recommend soldering temperature: 260 ± 5°C

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

KSD-3A
Rocker Switches