





Potentiometers

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Potentiometers

Rotary Potentiometer (Metal shaft type)

List of Varieties

Series		RK09L	RK097	RK163	RK271
Photo					
Dimensions		9mm Size		16mm Size	27mm Size
Attached switch		Without	Without Rotary switch Push-on switch	Without	Without
Control part orientation	Horizontal	●	●	●	●
	Vertical	●	—	—	—
Number of operating shafts		Single-shaft	Dual shaft (Outer-shaft, Inner shaft) Single-shaft	Single-shaft	
Number of resistor elements		Dual-unit Single-unit			
Shaft types		Flat		Flat Serrated	Flat Slotted
Length of the shaft (mm)		15 20 25		15 20	20 25
Detent		Center detent Without			31-position Without
Operating temperature range		-10°C to +70°C	-20°C to +70°C	-10°C to +70°C	
Operating life (cycles)		15,000			
Electrical performance	Total resistance	10kΩ			100kΩ
	Resistance taper	1B 15A			15A
	Total resistance tolerance	±20%			
	Rated power	0.05W		0.05W 0.1W	0.05W
	Maximum operating voltage	50V AC, 10V DC		150V AC, 5V DC	30V AC
	Residual resistance	20Ω max.			100Ω max.
	Insulation resistance	100MΩ min. 250V DC		100MΩ min. 500V DC	
	Voltage proof	300V AC for 1 minute		500V AC for 1 minute	
Mechanical performance	Total rotational angle	300° ±5°	300° ±5° 300° (+10, -5)°	300° ±3°	
	Rotational torque	2 to 25mN·m		3 to 25mN·m	8 to 35mN·m
	Stopper strength	0.5N·m	0.4N·m 0.5N·m	0.9N·m	
	Push-pull strength	80N max.	100N max.		
	Vibration	10 to 55 to 10Hz/min., the amplitude is 1.5mm for all the frequencies, in the 3 direction of X, Y and Z and for 2 hours respectively			
Automotive		—	—	—	—

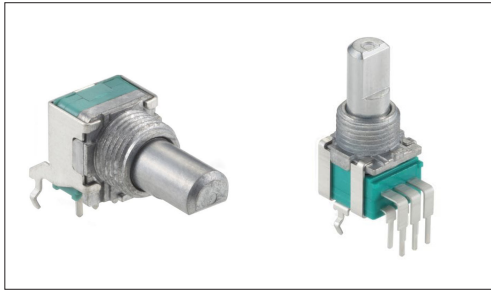
 Note

● Indicates applicability to all products in the series, while ○ indicates applicability to some products in the series.

Potentiometers Rotary Potentiometer (Metal shaft type)

9mm Size Metal Shaft Snap-in Type RK09L Series

Wide variety of single- or dual-gang options, ideal for various control applications.



- Total resistance tolerance: $\pm 20\%$
- Maximum operating voltage: 50V AC, 10V DC
- Rotational torque: 2 to 25mN·m
- Operating life: 15,000 cycles
- Operating temperature range: -10°C to $+70^{\circ}\text{C}$

Applications: Home: Major home appliances, Office equipment
Audio_TV: Visual, Audio, Pro audio

■ Product List

Products No.	Number of resistor elements	Control part orientation	Shaft types	Length of the shaft (mm)	Detent	Total resistance	Resistance taper	Automotive	Drawing No.
RK09L1120A5F	Single-unit	Horizontal	Flat	15	Without	10k Ω	1B	—	1
RK09L1120036	Single-unit	Horizontal	Flat	15	Center detent	10k Ω	1B	—	
RK09L1120A0Z	Single-unit	Horizontal	Flat	20	Without	10k Ω	1B	—	2
RK09L112003S	Single-unit	Horizontal	Flat	20	Center detent	10k Ω	1B	—	
RK09L1140A5L	Single-unit	Vertical	Flat	15	Without	10k Ω	1B	—	3
RK09L114001E	Single-unit	Vertical	Flat	15	Center detent	10k Ω	1B	—	
RK09L1140A2U	Single-unit	Vertical	Flat	20	Without	10k Ω	1B	—	4
RK09L114001T	Single-unit	Vertical	Flat	20	Center detent	10k Ω	1B	—	
RK09L122002H	Dual-unit	Horizontal	Flat	15	Center detent	10k Ω	1B	—	5
RK09L122002L	Dual-unit	Horizontal	Flat	25	Center detent	10k Ω	1B	—	6
RK09L12B0A4S	Dual-unit	Horizontal	Flat	15	Without	10k Ω	15A	—	5
RK09L12B0A1V	Dual-unit	Horizontal	Flat	25	Without	10k Ω	15A	—	6
RK09L1240015	Dual-unit	Vertical	Flat	15	Center detent	10k Ω	1B	—	7
RK09L1240019	Dual-unit	Vertical	Flat	20	Center detent	10k Ω	1B	—	8
RK09L12D0A1W	Dual-unit	Vertical	Flat	15	Without	10k Ω	15A	—	7
RK09L12D0A1T	Dual-unit	Vertical	Flat	20	Without	10k Ω	15A	—	8

⚠ Note

1. This catalog shows only outline specifications. When using the products, please obtain formal specifications for supply.
2. Please place purchase orders per minimum order unit (integer).
3. Products other than those listed in above products are also available. Please contact us for details.

■ Packing Specifications

Tray

Number of packages (pcs.)		Export package measurements (mm)
1 case / Japan	1 case / export packing	
1,000	2,000	479 x 369 x 181

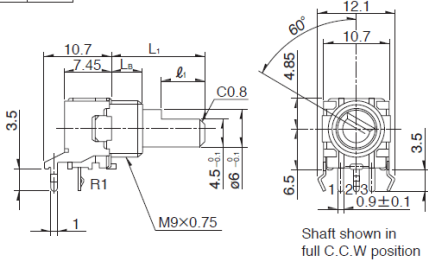
9mm Size Metal Shaft Snap-in Type
RK09L Series

Drawing No.1

■ Dimensions

L_1	15
L_B	5
l_1	7

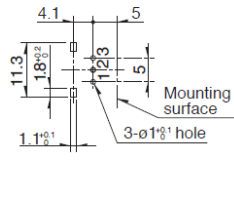
Unit:mm



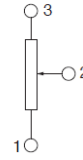
Shaft shown in full C.C.W position

■ Mounting Hole Dimensions

Unit:mm



Tolerance: ±0.1



Circuit

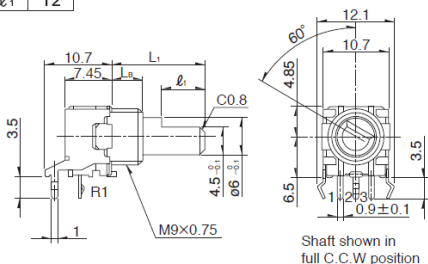
Viewed from mounting side.

Drawing No.2

■ Dimensions

L_1	20
L_B	7
l_1	12

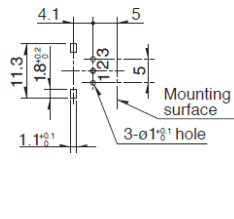
Unit:mm



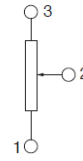
Shaft shown in full C.C.W position

■ Mounting Hole Dimensions

Unit:mm



Tolerance: ±0.1



Circuit

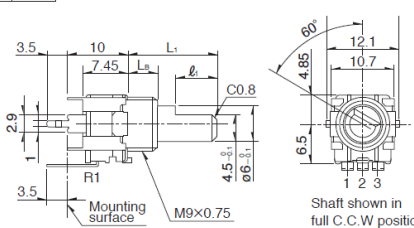
Viewed from mounting side.

Drawing No.3

■ Dimensions

L_1	15
L_B	5
l_1	7

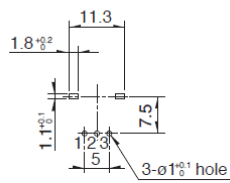
Unit:mm



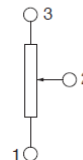
Shaft shown in full C.C.W position

■ Mounting Hole Dimensions

Unit:mm



Tolerance: ±0.1



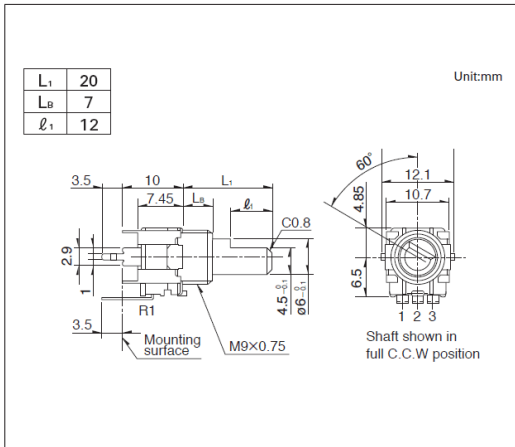
Circuit

Viewed from mounting side.

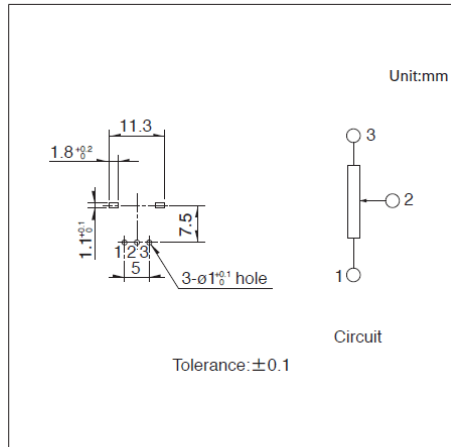
9mm Size Metal Shaft Snap-in Type
RK09L Series

Drawing No.4

■ Dimensions



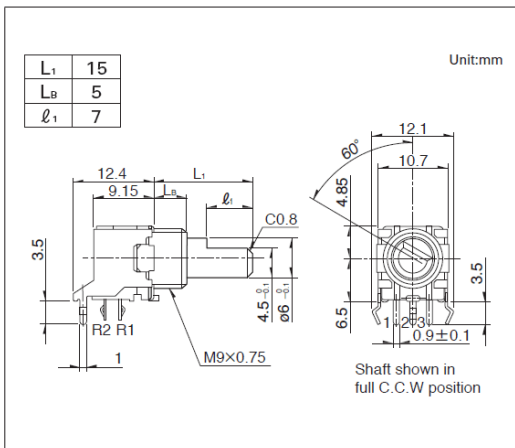
■ Mounting Hole Dimensions



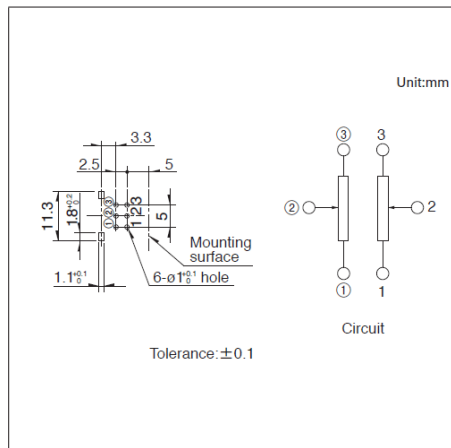
Viewed from mounting side.

Drawing No.5

■ Dimensions



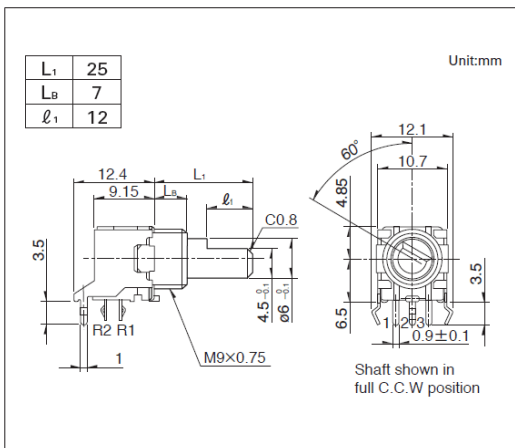
■ Mounting Hole Dimensions



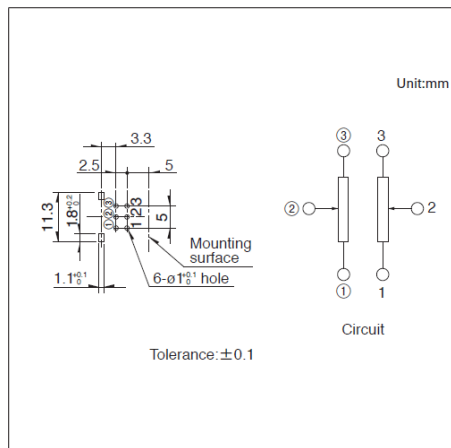
Viewed from mounting side.

Drawing No.6

■ Dimensions



■ Mounting Hole Dimensions

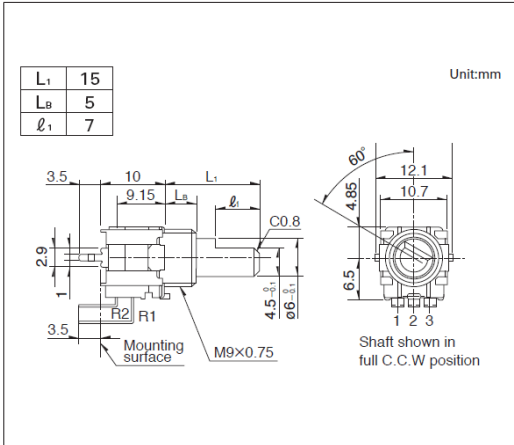


Viewed from mounting side.

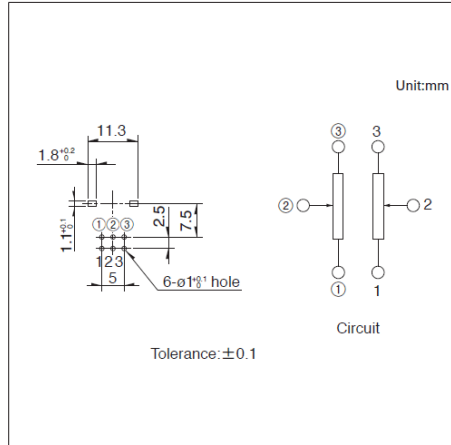
9mm Size Metal Shaft Snap-in Type
RK09L Series

Drawing No.7

■ Dimensions



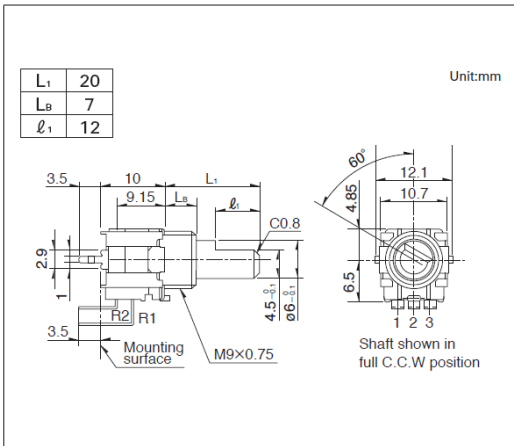
■ Mounting Hole Dimensions



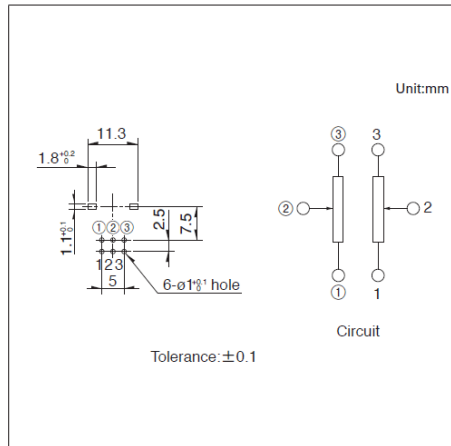
Viewed from mounting side.

Drawing No.8

■ Dimensions



■ Mounting Hole Dimensions

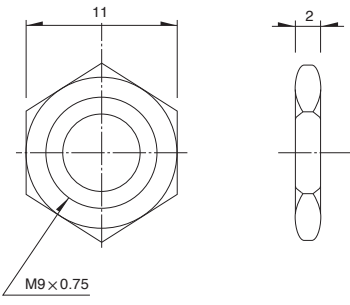
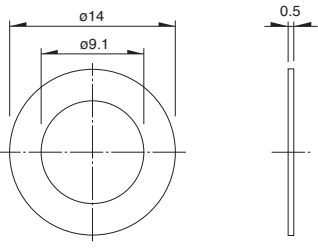


Viewed from mounting side.

9mm Size Metal Shaft Snap-in Type / Attached Parts

The following parts are included with the product.

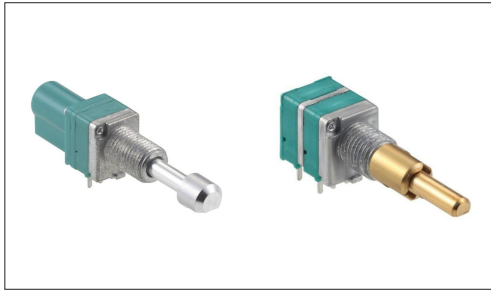
Unit:mm

Nut	Washer
 <p>Technical drawing of a hexagonal nut. The top view shows a hexagon with a diameter of 11mm. The side view shows a thickness of 2mm. The thread specification is M9x0.75.</p>	 <p>Technical drawing of a circular washer. The top view shows an outer diameter of 14mm (ø14) and an inner diameter of 9.1mm (ø9.1). The side view shows a thickness of 0.5mm.</p>

Potentiometers Rotary Potentiometer (Metal shaft type)

9mm Size Metal Shaft Multi-ganged Type RK097 Series

Compact type with a 9.5mm body width, suitable for a broad range of control applications.



- Total resistance tolerance: $\pm 20\%$
- Maximum operating voltage: 50V AC, 10V DC
- Rotational torque: 2 to 25mN·m
- Operating life: 15,000 cycles
- Operating temperature range: -20°C to $+70^{\circ}\text{C}$

Applications: Home: Major home appliances, Office equipment
Audio_TV: Visual, Audio, Pro audio

■ Product List

Products No.	Type	Number of resistor elements	Control part orientation	Shaft types	Length of the shaft (mm)	Detent	Total resistance	Resistance taper	Automotive	Drawing No.
RK097111080R	Single-shaft without switch type	Single-unit	Horizontal	Flat	20	Without	10k Ω	15A	—	1
RK0971110D88		Single-unit	Horizontal	Flat	20	Center detent	10k Ω	1B	—	
RK0971210DBH		Dual-unit	Horizontal	Flat	20	Center detent	10k Ω	1B	—	2
RK09712200HA		Dual-unit	Horizontal	Flat	20	Without	10k Ω	15A	—	
RK09711110EL	Single-shaft with rotary switch type	Single-unit	Horizontal	Flat	20	Without	10k Ω	1B	—	3
RK0971221Z0X		Dual-unit	Horizontal	Flat	20	Without	10k Ω	15A	—	4
RK0971114Z1N	Single-shaft momentary push (0.5mm-travel) switch	Single-unit	Horizontal	Flat	15	Center detent	10k Ω	1B	—	5
RK0971224Z01		Dual-unit	Horizontal	Flat	20	Without	10k Ω	15A	—	6
RK097111T065	Single-shaft with push-lock mechanism type	Single-unit	Horizontal	Flat	25	Without	10k Ω	1B	—	7
RK097111TD2M		Single-unit	Horizontal	Flat	25	Center detent	10k Ω	1B	—	
RK097122T017		Dual-unit	Horizontal	Flat	25	Without	10k Ω	15A	—	8
RK097221005C	Dual-shaft, dual-unit without switch type	Dual-unit	Horizontal	—	—	—	—	—	—	9

⚠ Note

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2. Please place purchase orders per minimum order unit (integer).
3. This products can be used in vehicles.
4. Products other than those listed in above products are also available. Please contact us for details.

■ Packing Specifications

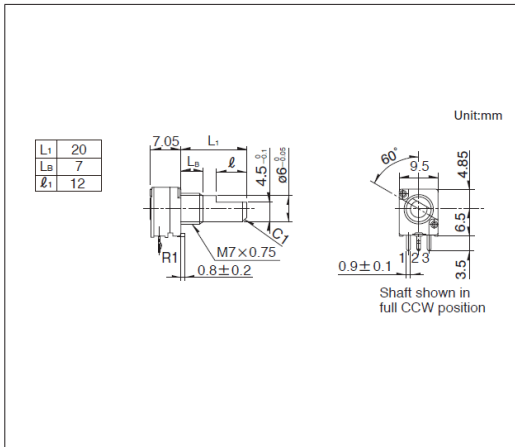
Tray

Products No.	Number of packages(pcs.)		Export package measurements (mm)
	1 case / Japan	1 case / export packing	
RK097111080R RK0971110D88	1,200	2,400	463 x 375 x 185
RK0971210DBH RK09712200HA	800	1,600	540 x 373 x 207
RK09711110EL RK0971221Z0X RK0971114Z1N RK0971224Z01 RK097111T065 RK097111TD2M RK097221005C	700	1,400	540 x 373 x 181
RK097122T017	600	1,200	540 x 373 x 225

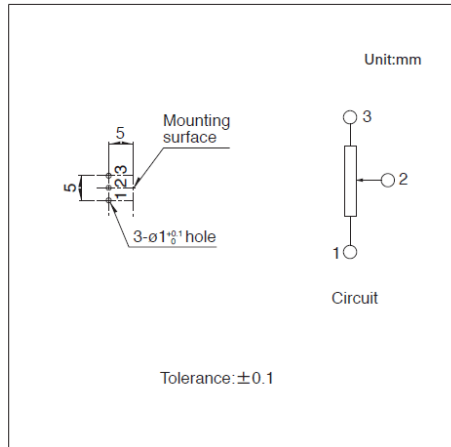
9mm Size Metal Shaft Multi-ganged Type
RK097 Series

Drawing No.1

■ Dimensions



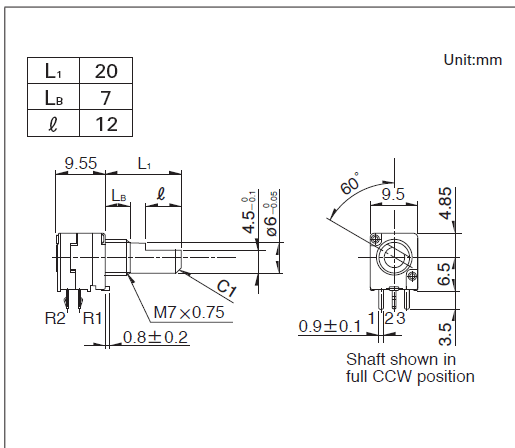
■ Mounting Hole Dimensions



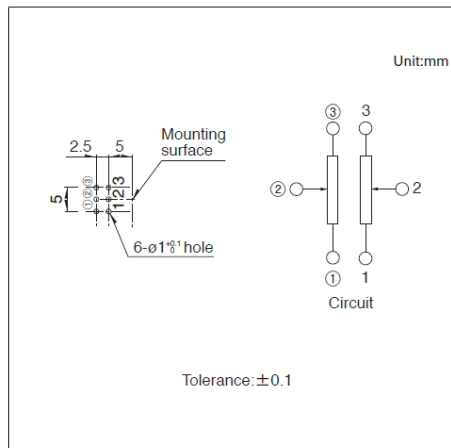
Viewed from mounting side.

Drawing No.2

■ Dimensions



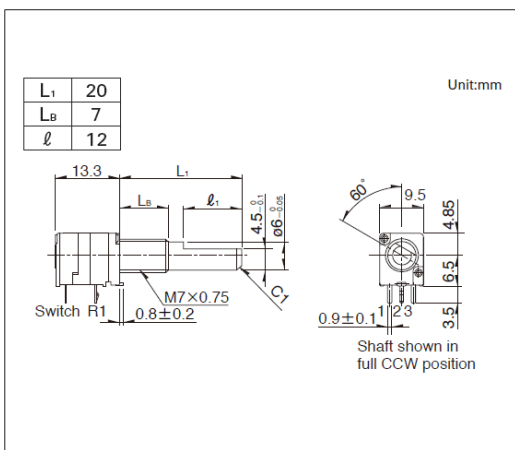
■ Mounting Hole Dimensions



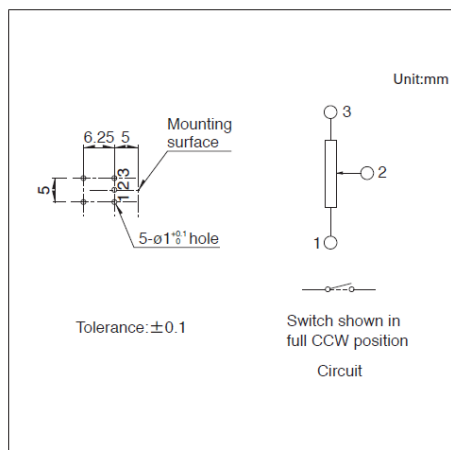
Viewed from mounting side.

Drawing No.3

■ Dimensions



■ Mounting Hole Dimensions

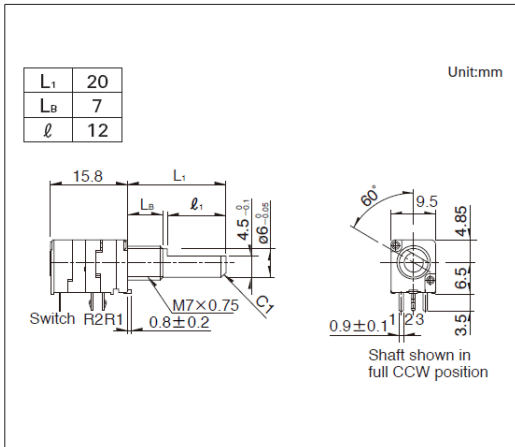


Viewed from mounting side.

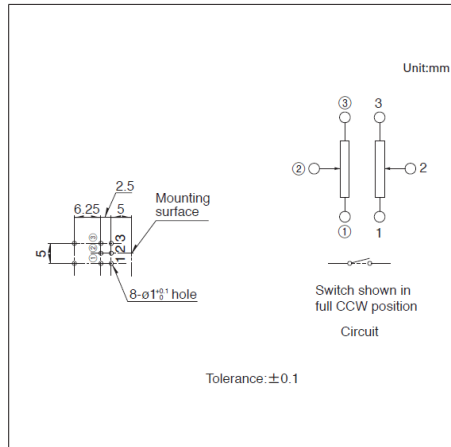
9mm Size Metal Shaft Multi-ganged Type
RK097 Series

Drawing No.4

■ Dimensions



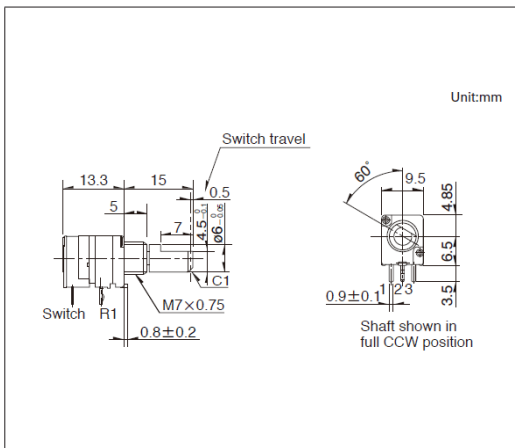
■ Mounting Hole Dimensions



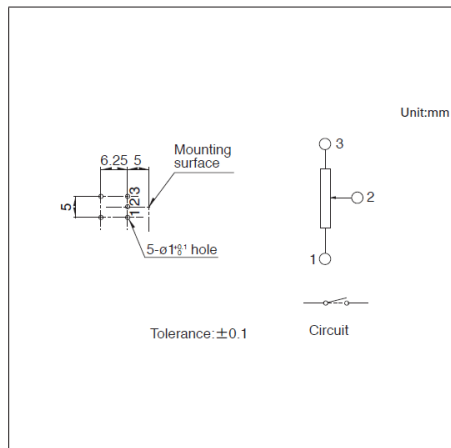
Viewed from mounting side.

Drawing No.5

■ Dimensions



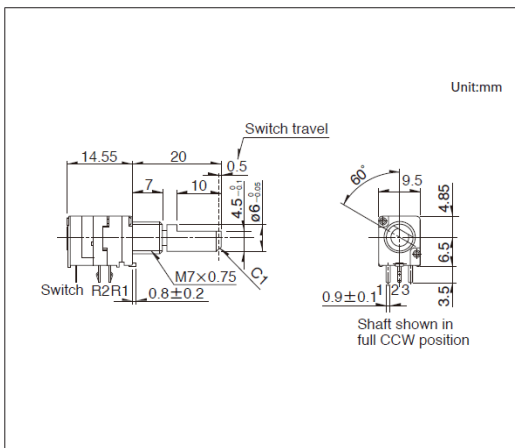
■ Mounting Hole Dimensions



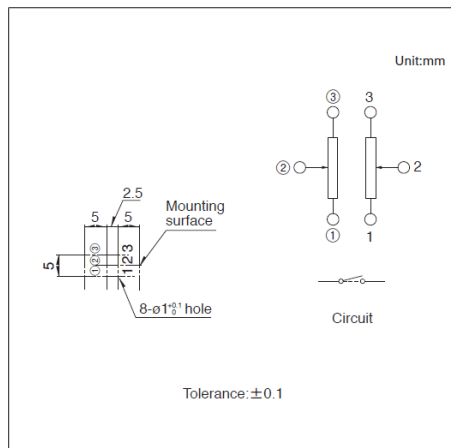
Viewed from mounting side.

Drawing No.6

■ Dimensions



■ Mounting Hole Dimensions

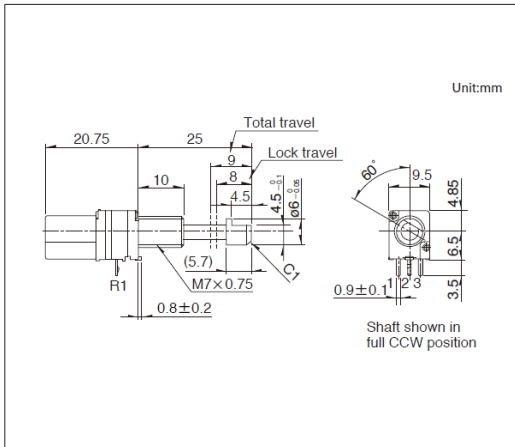


Viewed from mounting side.

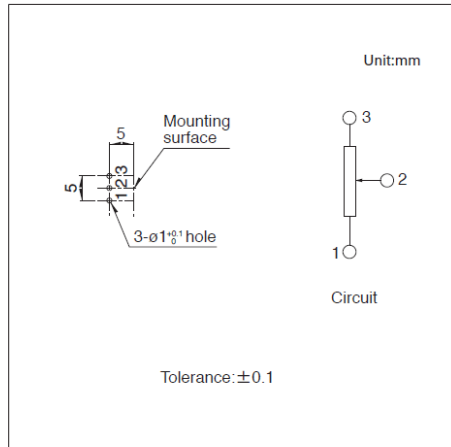
9mm Size Metal Shaft Multi-ganged Type
RK097 Series

Drawing No.7

■ Dimensions



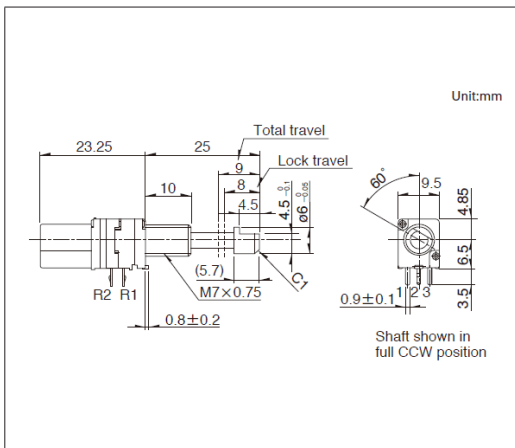
■ Mounting Hole Dimensions



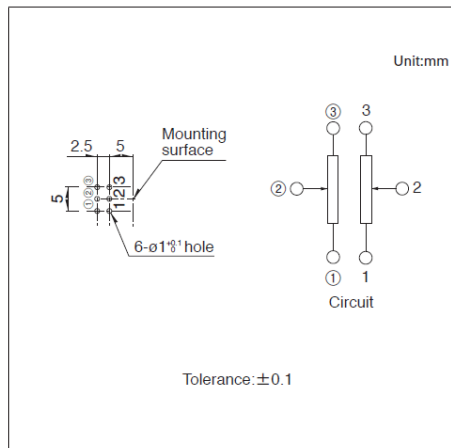
Viewed from mounting side.

Drawing No.8

■ Dimensions



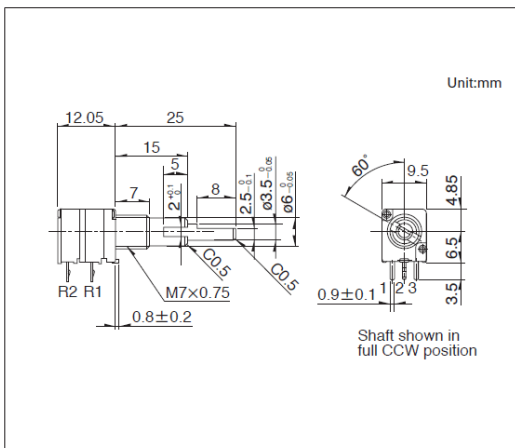
■ Mounting Hole Dimensions



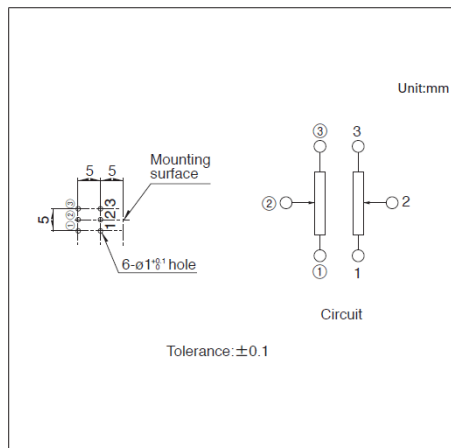
Viewed from mounting side.

Drawing No.9

■ Dimensions



■ Mounting Hole Dimensions



Viewed from mounting side.

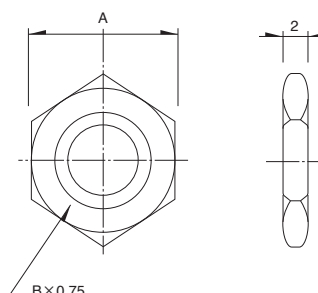
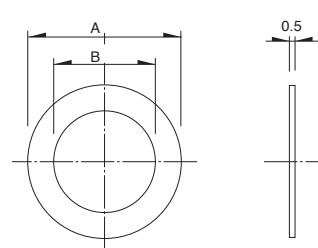
9mm Size Metal Shaft Multi-ganged Type / Switch Specifications

Switch type		Rotary switch	Momentary push switch
Contact arrangement		Single pole and single throw	Single pole and single throw
Travel		50° max.	0.5 $^{+0.7}_{-0.3}$ mm
Changeover force		50mN·m max.	4 $^{+2}_{-1}$ N
Operating life under load		10,000 cycles	
Electrical performance	Rating	3A 16V DC (10mA 16V DC min. ratings)	0.5A 12V DC (10mA 12V DC min. ratings)
	Contact resistance	100mΩ max. for initial period, 200mΩ max. after operating life.	
	Insulation resistance	100MΩ min. 250V DC	
	Voltage proof	300V AC for 1 minute	

9mm Size Metal Shaft Multi-ganged Type / Attached Parts

The following parts are included with the product.

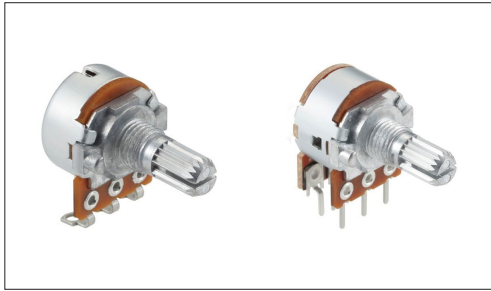
Unit:mm

Nut			Washer		
					
Bearing screw diameter	Dimension		Bearing screw diameter	Dimension	
	A	B		A	B
M7	11	M7	M7	φ12	φ7.2
M9	11	M9	M9	φ14	φ9.1

Potentiometers Rotary Potentiometer (Metal shaft type)

16mm Size Metal Shaft Type RK163 Series

Versatile product specification variety supporting various control needs.



- Total resistance tolerance: $\pm 20\%$
- Maximum operating voltage: 150V AC, 5V DC
- Rotational torque: 3 to 25mN·m
- Operating life: 15,000 cycles
- Operating temperature range: -10°C to $+70^{\circ}\text{C}$

Applications: Home: Major home appliances, Office equipment
Audio_TV: Audio

■ Product List

Products No.	Number of resistor elements	Control part orientation	Shaft types	Length of the shaft (mm)	Detent	Total resistance	Resistance taper	Automotive	Drawing No.
RK1631110U1Q	Single-unit	Horizontal	Flat	20	Without	10k Ω	1B	—	1
RK1631110TNP	Single-unit	Horizontal	Flat	20	Without	10k Ω	1B	—	2
RK1631110U2A	Single-unit	Horizontal	Serrated	15	Without	10k Ω	1B	—	3
RK1631110U0Q	Single-unit	Horizontal	Serrated	15	Without	10k Ω	1B	—	4
RK16312101A2	Dual-unit	Horizontal	Flat	20	Center detent	10k Ω	1B	—	5
RK1631210AX9	Dual-unit	Horizontal	Serrated	15	Without	10k Ω	1B	—	6
RK16312A0B85	Dual-unit	Horizontal	Flat	20	Without	10k Ω	15A	—	5
RK16312A0BKR	Dual-unit	Horizontal	Serrated	15	Without	10k Ω	15A	—	6

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■ Packing Specifications

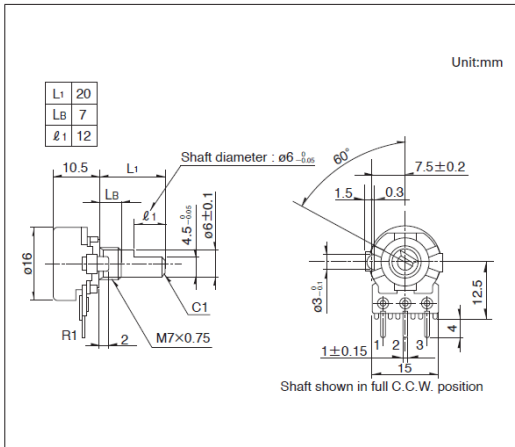
Bulk

Products No.	Number of packages (pcs.)		Export package measurements (mm)
	1 case / Japan	1 case / export packing	
RK1631110U1Q RK1631110U2A RK16312101A2 RK1631210AX9 RK16312A0B85 RK16312A0BKR	600	1,200	532 x 326 x 386
RK1631110TNP RK1631110U0Q	200	400	360 x 270 x 155

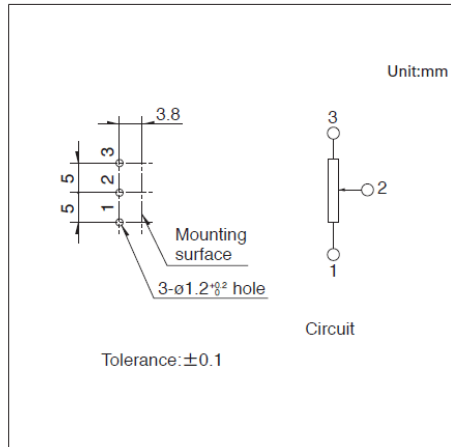
16mm Size Metal Shaft Type
RK163 Series

Drawing No.1

■ Dimensions



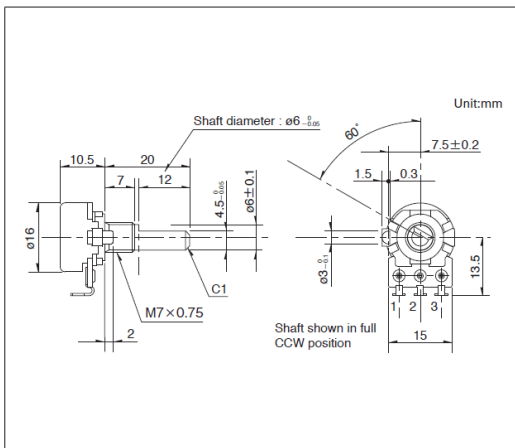
■ Mounting Hole Dimensions



Viewed from mounting side.

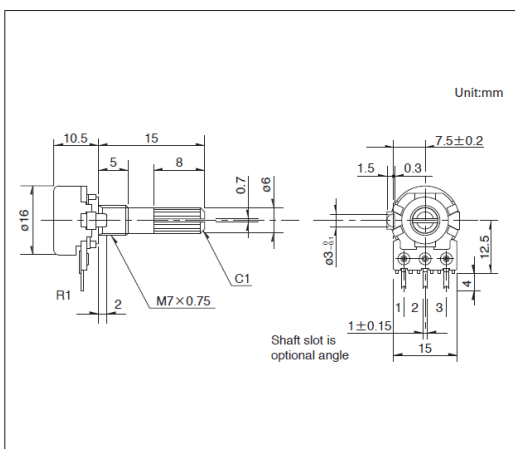
Drawing No.2

■ Dimensions

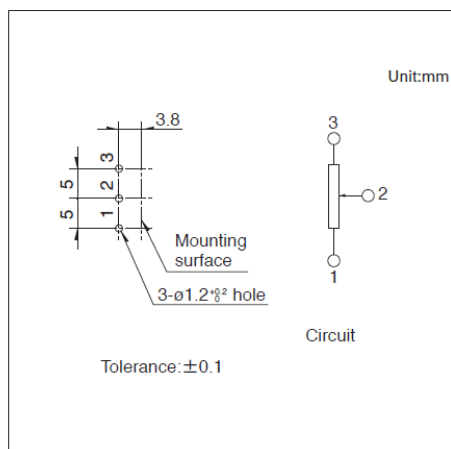


Drawing No.3

■ Dimensions



■ Mounting Hole Dimensions

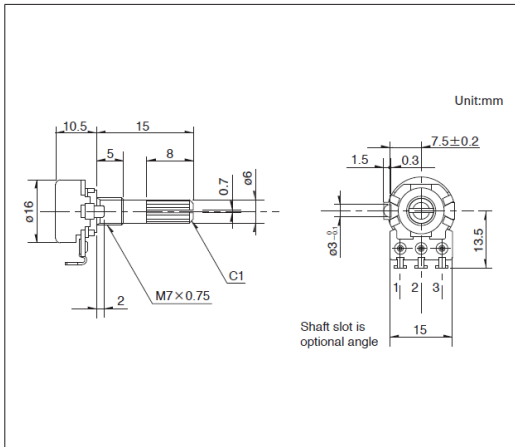


Viewed from mounting side.

16mm Size Metal Shaft Type
RK163 Series

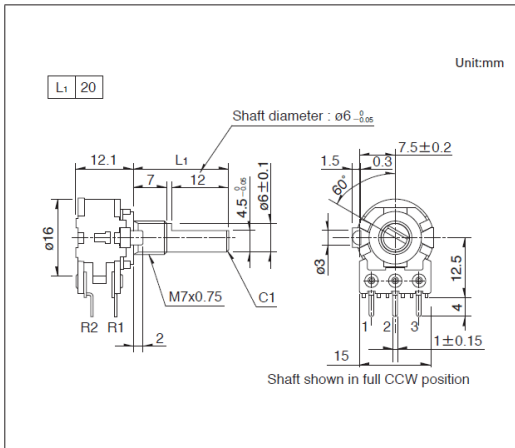
Drawing No.4

■ Dimensions

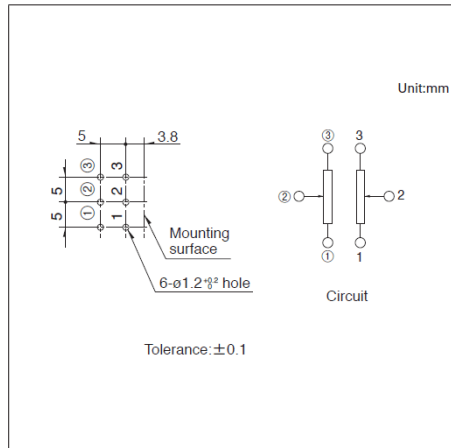


Drawing No.5

■ Dimensions



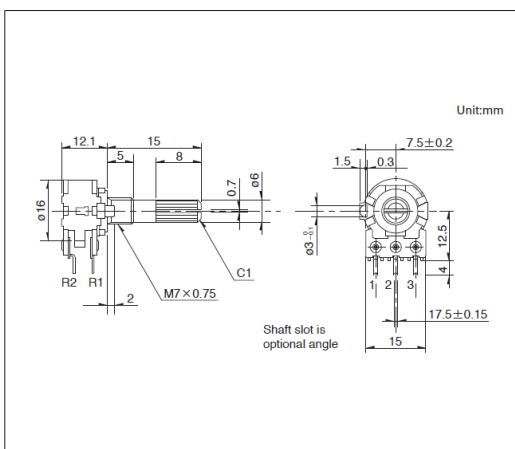
■ Mounting Hole Dimensions



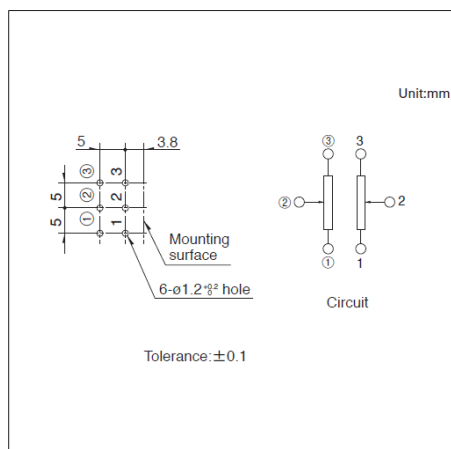
Viewed from mounting side.

Drawing No.6

■ Dimensions



■ Mounting Hole Dimensions

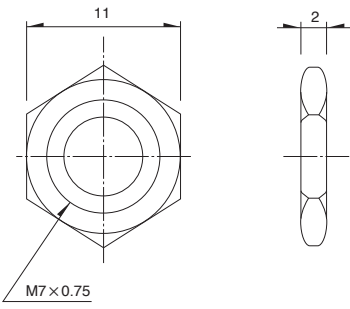
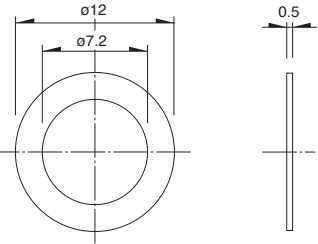


Viewed from mounting side.

16mm Size Metal Shaft Type / Attached Parts

The following parts are included with the product.

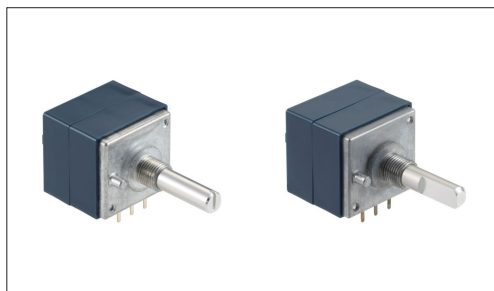
Unit:mm

Nut	Washer
 <p>11</p> <p>2</p> <p>M7×0.75</p>	 <p>ø12</p> <p>ø7.2</p> <p>0.5</p>

Potentiometers Rotary Potentiometer (Metal shaft type)

27mm Size Metal Shaft Type RK271 Series

High-performance volume with excellent operation feel.



- Total resistance tolerance: $\pm 20\%$
- Maximum operating voltage: 30V AC
- Rotational torque: 8 to 35mN·m
- Operating life: 15,000 cycles
- Operating temperature range: -10°C to $+70^{\circ}\text{C}$

Applications: Audio_TV:Audio

■ Product List

Products No.	Number of resistor elements	Control part orientation	Shaft types	Length of the shaft (mm)	Detent	Total resistance	Resistance taper	Automotive	Drawing No.
RK2711120026	Single-unit	Horizontal	Slotted	25	31-position	100k Ω	15A	—	1
RK271111001T	Single-unit	Horizontal	Slotted	25	Without	100k Ω	15A	—	
RK27112A00AK	Dual-unit	Horizontal	Slotted	20	Without	100k Ω	15A	—	2
RK27112A00CC	Dual-unit	Horizontal	Slotted	25	Without	100k Ω	15A	—	3
RK27112A0A16	Dual-unit	Horizontal	Flat	20	Without	100k Ω	15A	—	4
RK27112A00B9	Dual-unit	Horizontal	Flat	25	Without	100k Ω	15A	—	5

⚠ Note

1. This catalog shows only outline specifications. When using the products, please obtain formal specifications for supply.
2. Please place purchase orders per minimum order unit (integer).
3. Products other than those listed in above products are also available. Please contact us for details.

■ Packing Specifications

Bulk

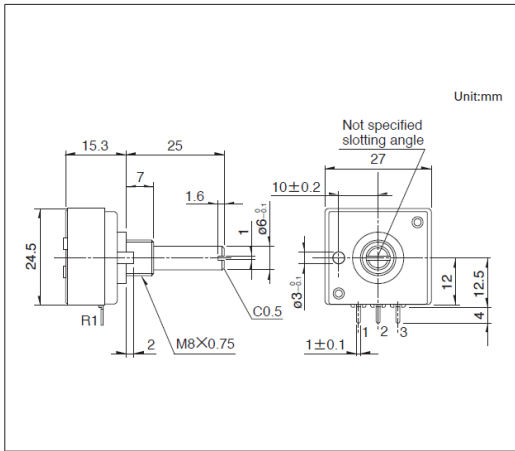
Products No.	Number of packages(pcs.)		Export package measurements (mm)
	1 case / Japan	1 case / export packing	
RK2711120026 RK271111001T RK27112A00AK RK27112A0A16	100	500	540 x 380 x 314
RK27112A00CC RK27112A00B9	100	500	510 x 360 x 359

Potentiometers Rotary Potentiometer (Metal shaft type)

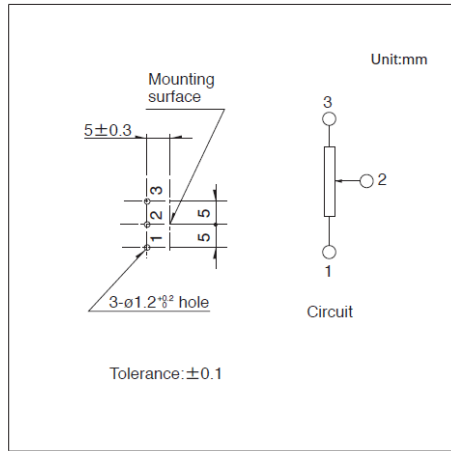
27mm Size Metal Shaft Type
RK271 Series

Drawing No.1

■ Dimensions



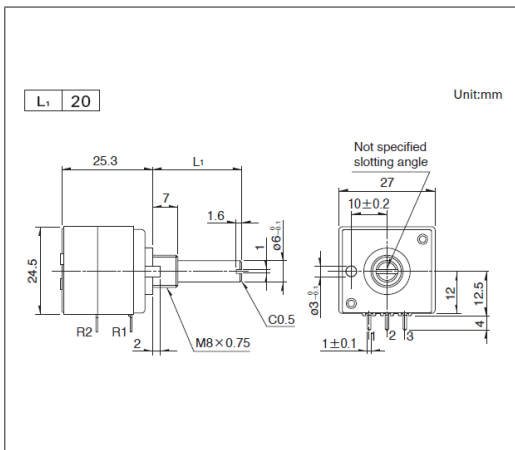
■ Mounting Hole Dimensions



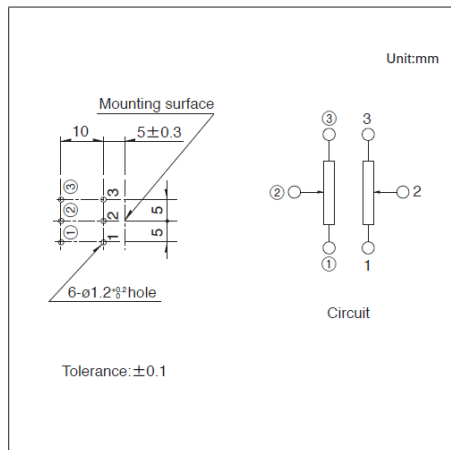
Viewed from mounting side.

Drawing No.2

■ Dimensions



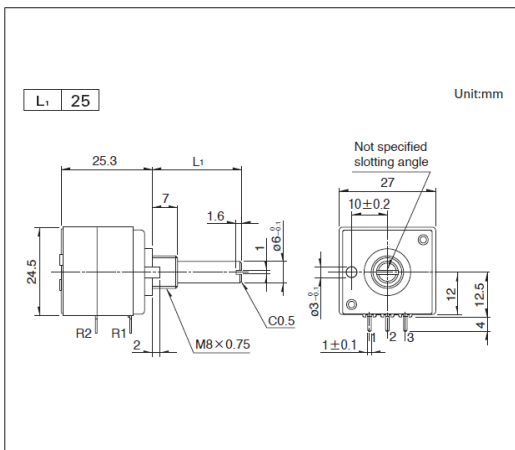
■ Mounting Hole Dimensions



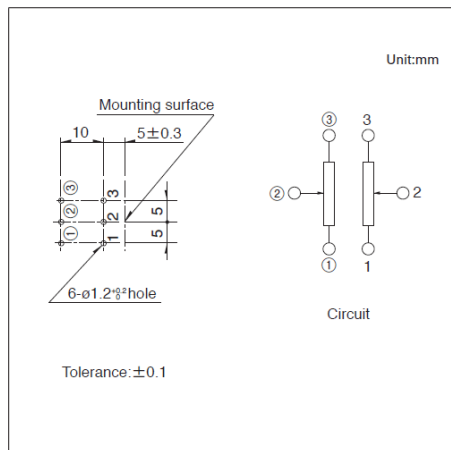
Viewed from mounting side.

Drawing No.3

■ Dimensions



■ Mounting Hole Dimensions

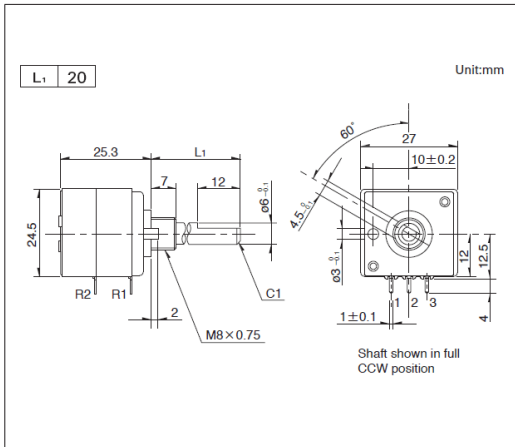


Viewed from mounting side.

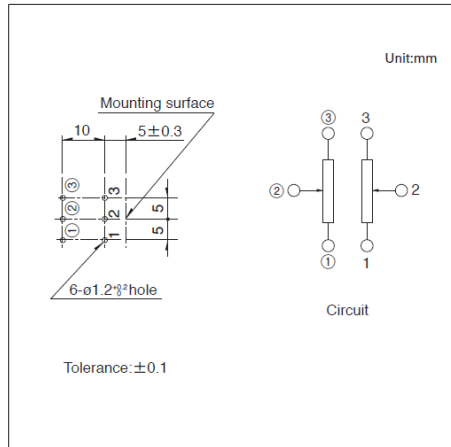
27mm Size Metal Shaft Type
RK271 Series

Drawing No.4

■ Dimensions



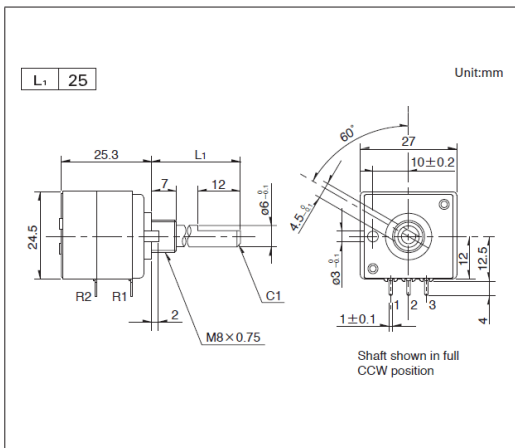
■ Mounting Hole Dimensions



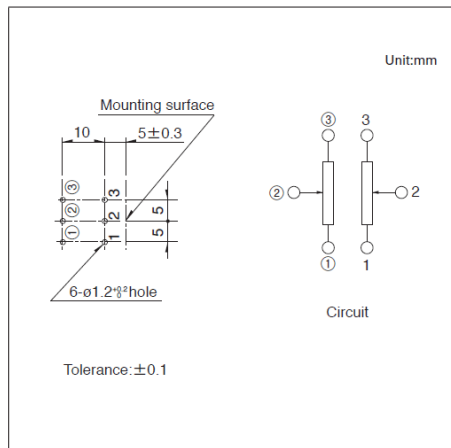
Viewed from mounting side.

Drawing No.5

■ Dimensions



■ Mounting Hole Dimensions

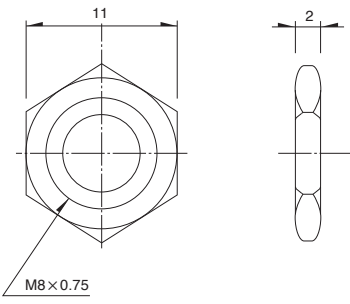
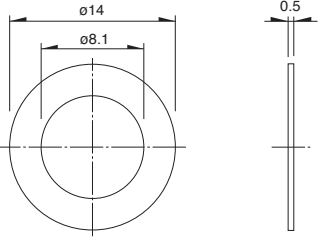


Viewed from mounting side.

27mm Size Metal Shaft Type / Attached Parts

The following parts are included with the product.

Unit:mm

Nut	Washer
 <p>Technical drawing of a hexagonal nut. The front view shows a hexagonal shape with a diameter of 11 mm. The side view shows a height of 2 mm. The thread specification is M8x0.75.</p>	 <p>Technical drawing of a circular washer. The front view shows an outer diameter of 14 mm and an inner diameter of 8.1 mm. The side view shows a thickness of 0.5 mm.</p>

Rotary Potentiometer (Metal shaft type) / Soldering Conditions

■ Reference for Manual Soldering

Series	Tip temperature	Soldering time	No. of solders
RK09L, RK097	350°C max.	3s max.	1 time
RK163, RK271	350°C max.	5s max.	1 time






■ Reference for Dip Soldering

Series	Preheating		Dip soldering		No. of solders
	Soldering surface temperature	Heating time	Soldering temperature	Soldering time	
RK09L, RK097	100°C max.	2 min. max.	260±5°C	5±1s	2 times max.

Potentiometers

Rotary Potentiometer (Insulated shaft type)

List of Varieties

Series		RK09K/RK09D	RK09Y11L	RK11K	RK12L	RK14K
Photo						
Dimensions		9mm Size		11mm Size	12mm Size	14mm Size
Control part orientation	Horizontal	●	●	●	●	●
	Vertical	●	—	●	●	●
Number of resistor elements		Single-unit			Dual-unit	
Shaft types		Driver Flat Knob	Flat			
Length of the shaft LM1 (mm)		15.0 20.0 25.0	—	22.5	25.0 30.0	22.5
Detent		Center detent Without	Without	Center detent Without		
Operating temperature range		-10°C to +70°C				
Operating life (cycles)		5,000	1,000,000	15,000		
Electrical performance	Total resistance	10kΩ				
	Resistance taper	1B	Linear	1B 15A		
	Total resistance tolerance	±20%	±30%	±20%		
	Rated power	0.05W	0.01W	0.05W		
	Maximum operating voltage	50V AC, 20V DC	50V AC, 5V DC	50V AC, 20V DC	50V AC for AC only	
	Gang error	—			-40dB to 0dB 3dB max. Within 2dB at center	
	Insulation resistance	100MΩ min. 250V DC		100MΩ min. 500V DC		100MΩ min. 250V DC
Voltage proof	250V AC for 1 minute		500V AC for 1 minute		300V AC for 1 minute	
Mechanical performance	Total rotational angle	280° ±5° 300° ±5°	300° ±5° (Effective electrical rotational angle 60° ±5°)	300° ±5°		
	Rotational torque	1 to 8mN·m	5mN·m max.	3 to 20mN·m	2 to 15mN·m	3 to 20mN·m
	Stopper strength	0.3N·m	—	0.6N·m	0.5N·m	0.6N·m
	Push-pull strength	50N max.	30N max.	80N max.		
	Vibration	10 to 55 to 10Hz/min., the amplitude is 1.5mm for all the frequencies, in the 3 direction of X, Y and Z and for 2 hours respectively				
Automotive		—	—	—	—	—

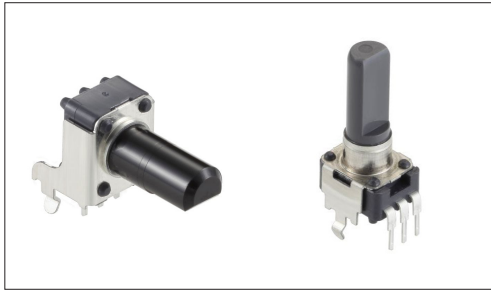
⚠ Note

● Indicates applicability to all products in the series, while ○ indicates applicability to some products in the series.

Potentiometers Rotary Potentiometer (Insulated shaft type)

9mm Size Insulated Shaft Snap-in Type RK09K/RK09D Series

Compact type with a 9.8mm body width, supporting high-density set designs.



- Total resistance tolerance: $\pm 20\%$
- Maximum operating voltage: 50V AC, 20V DC
- Rotational torque: 1 to 8mN·m
- Operating life: 5,000 cycles
- Operating temperature range: -10°C to $+70^{\circ}\text{C}$

Applications: Home: Major home appliances, Office equipment
Audio_TV: Visual, Audio, Pro audio

Product List

Products No.	Type	Number of resistor elements	Control part orientation (Mounting height)	Shaft types	Length of the shaft LM1 (mm)	Detent	Total resistance	Resistance taper	Automotive	Drawing No.
RK09K113004U	—	Single-unit	Vertical	Flat	15.0	Center detent	10k Ω	1B	—	1
RK09K1130A6S		Single-unit	Vertical	Flat	15.0	Without	10k Ω	1B	—	
RK09K11300DR		Single-unit	Vertical	Knob	15.0	Center detent	10k Ω	1B	—	2
RK09K1130A8G		Single-unit	Vertical	Knob	15.0	Without	10k Ω	1B	—	
RK09K1130081		Single-unit	Vertical	Knob	20.0	Center detent	10k Ω	1B	—	3
RK09K1130A5R		Single-unit	Vertical	Knob	20.0	Without	10k Ω	1B	—	
RK09K1130AP5		Single-unit	Vertical	Driver	15.0	Without	10k Ω	1B	—	4
RK09K1130AST		Single-unit	Vertical	Driver	20.0	Without	10k Ω	1B	—	5
RK09K111009J		Single-unit	Horizontal	Flat	15.0	Center detent	10k Ω	1B	—	6
RK09K1110AK4		Single-unit	Horizontal	Flat	15.0	Without	10k Ω	1B	—	
RK09K11100DN		Single-unit	Horizontal	Flat	20.0	Center detent	10k Ω	1B	—	7
RK09K1110AAR		Single-unit	Horizontal	Flat	20.0	Without	10k Ω	1B	—	
RK09K1110077		Single-unit	Horizontal	Knob	20.0	Center detent	10k Ω	1B	—	8
RK09K1110A0J		Single-unit	Horizontal	Knob	20.0	Without	10k Ω	1B	—	
RK09K1110AMJ		Single-unit	Horizontal	Flat	15.0	Without	10k Ω	1B	—	9
RK09K1110B26		Single-unit	Horizontal	Flat	20.0	Without	10k Ω	1B	—	10
RK09D1130C3W		Single-unit	Vertical	Flat	20.0	Center detent	10k Ω	1B	—	11
RK09D1130C1B		Single-unit	Vertical	Flat	20.0	Without	10k Ω	1B	—	
RK09D1130C3C		Single-unit	Vertical	Flat	25.0	Center detent	10k Ω	1B	—	12
RK09D1130C2P		Single-unit	Vertical	Flat	25.0	Without	10k Ω	1B	—	
RK09D1110C1A	Single-unit	Horizontal	Flat	25.0	Without	10k Ω	1B	—	13	
RK09K1130D62	Clear-shaft	Single-unit	Vertical	Knob	20.0	Without	10k Ω	1B	—	14

⚠ Note

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2. Please place purchase orders per minimum order unit (integer).
3. Products other than those listed in above products are also available. Please contact us for details.

Potentiometers Rotary Potentiometer (Insulated shaft type)

9mm Size Insulated Shaft Snap-in Type
RK09K/RK09D Series

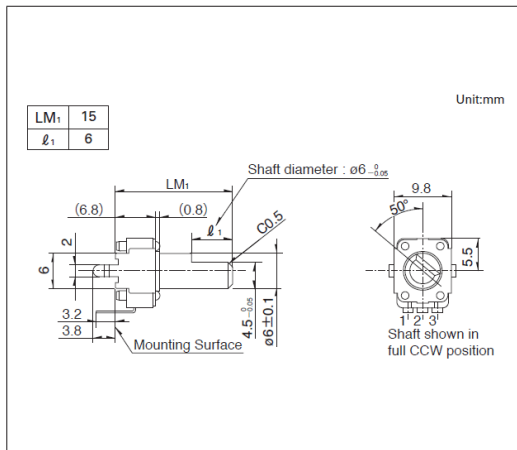
■ Packing Specifications

Bulk

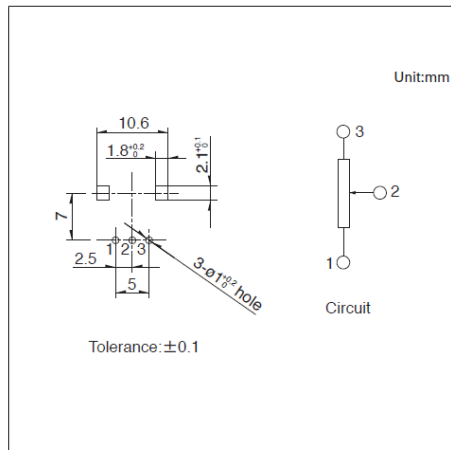
Number of packages (pcs.)		Export package measurements (mm)
1 case / Japan	1 case / export packing	
1,000	2,000	528 x 369 x 178

Drawing No.1

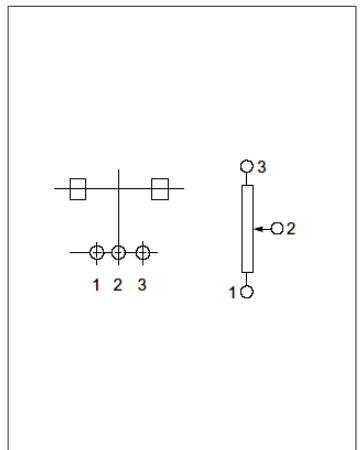
■ Dimensions



■ Mounting Hole Dimensions



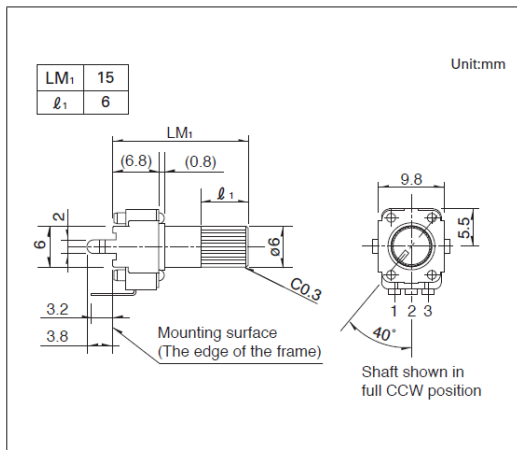
■ Terminal Layout / Circuit Diagram



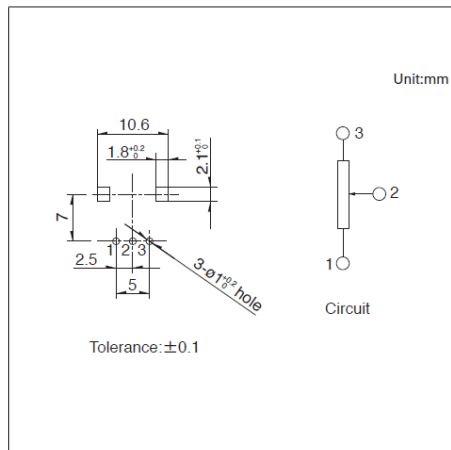
Viewed from mounting side.

Drawing No.2

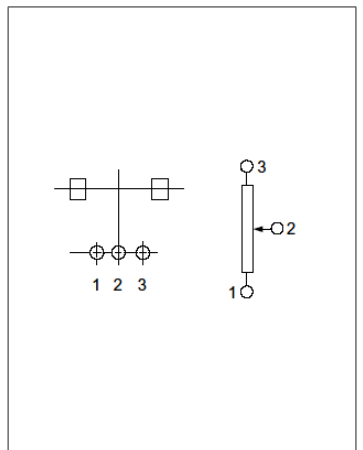
■ Dimensions



■ Mounting Hole Dimensions



■ Terminal Layout / Circuit Diagram



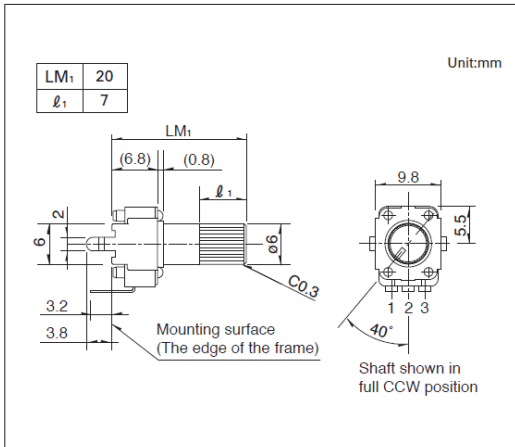
Viewed from mounting side.

Potentiometers Rotary Potentiometer (Insulated shaft type)

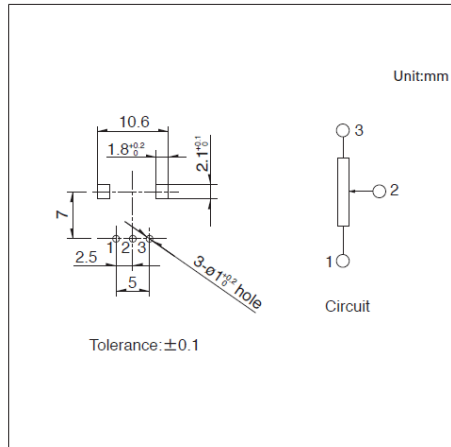
9mm Size Insulated Shaft Snap-in Type
RK09K/RK09D Series

Drawing No.3

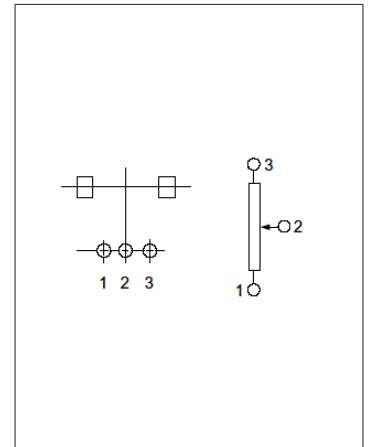
■ Dimensions



■ Mounting Hole Dimensions



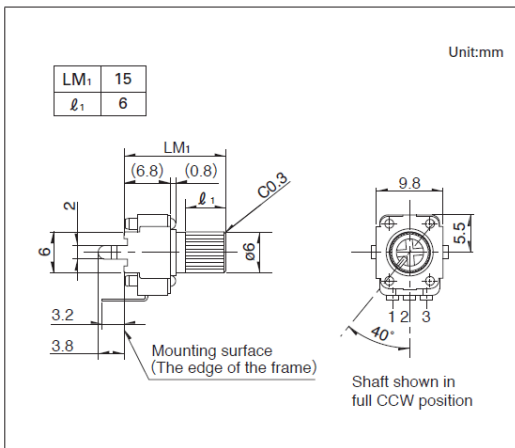
■ Terminal Layout / Circuit Diagram



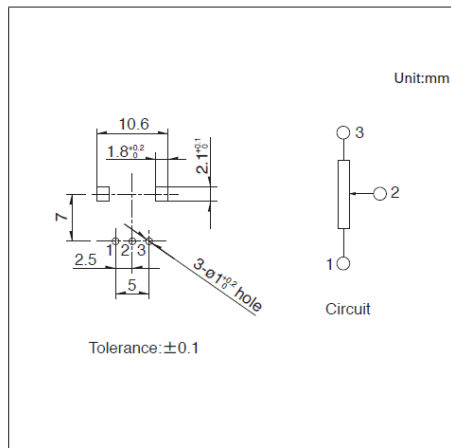
Viewed from mounting side.

Drawing No.4

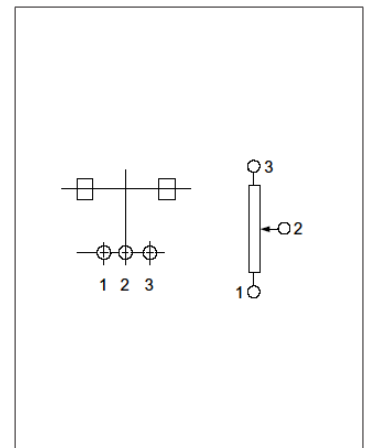
■ Dimensions



■ Mounting Hole Dimensions



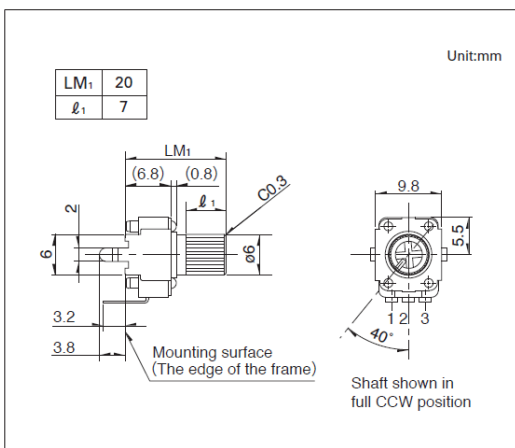
■ Terminal Layout / Circuit Diagram



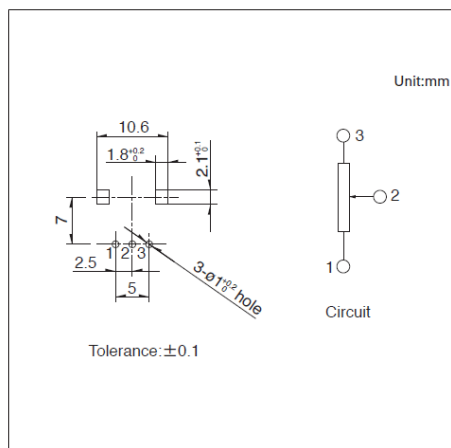
Viewed from mounting side.

Drawing No.5

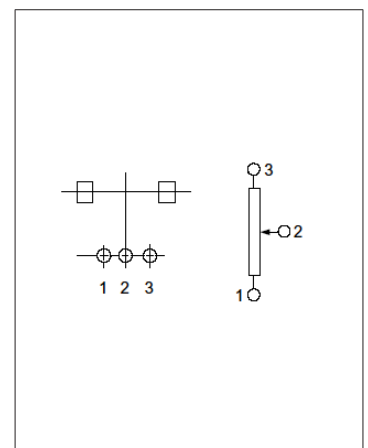
■ Dimensions



■ Mounting Hole Dimensions



■ Terminal Layout / Circuit Diagram

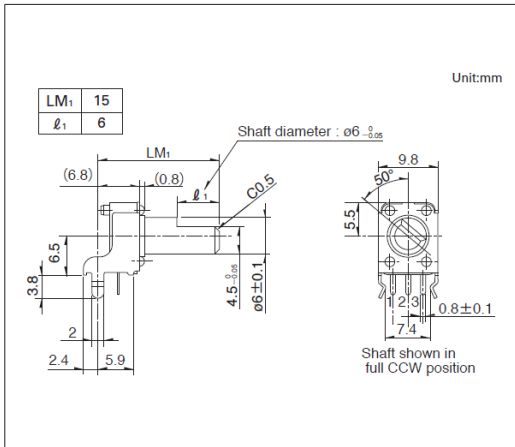


Viewed from mounting side.

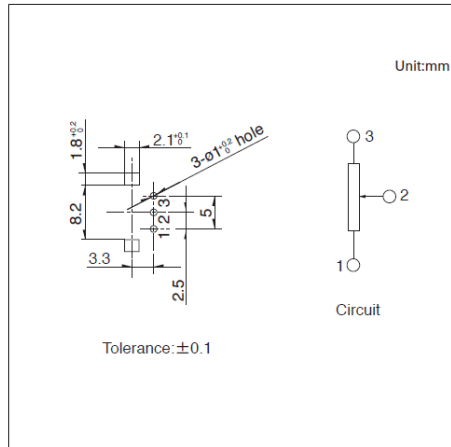
9mm Size Insulated Shaft Snap-in Type
RK09K/RK09D Series

Drawing No.6

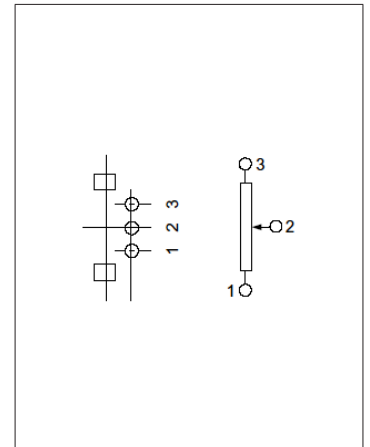
■ Dimensions



■ Mounting Hole Dimensions



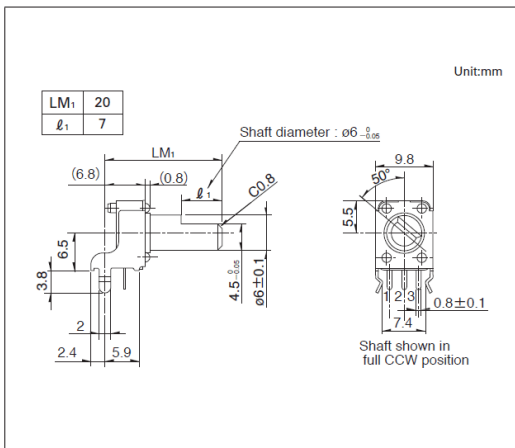
■ Terminal Layout / Circuit Diagram



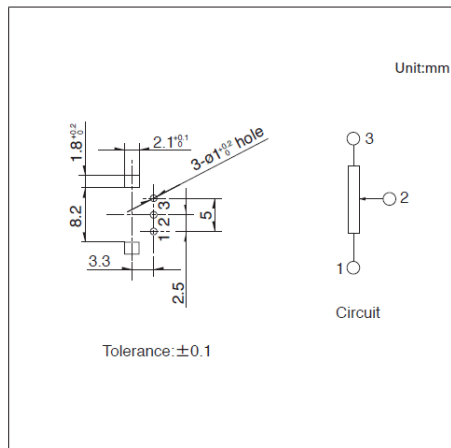
Viewed from mounting side.

Drawing No.7

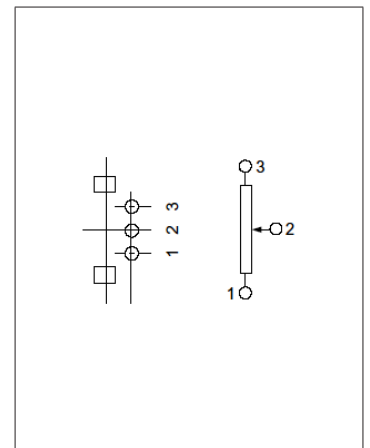
■ Dimensions



■ Mounting Hole Dimensions



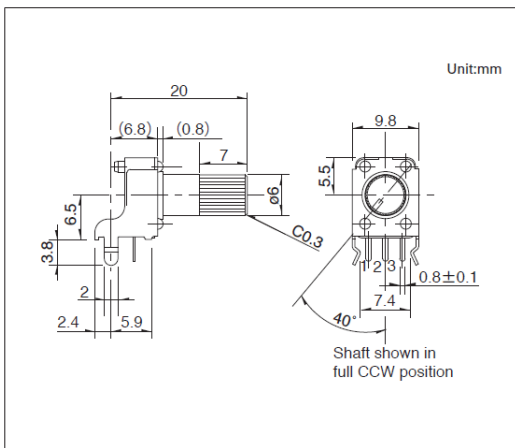
■ Terminal Layout / Circuit Diagram



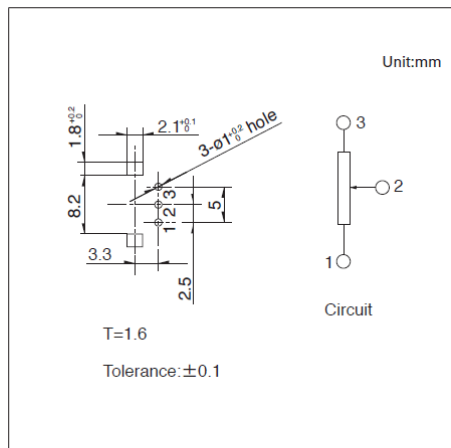
Viewed from mounting side.

Drawing No.8

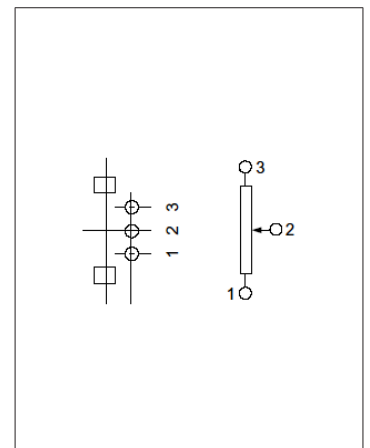
■ Dimensions



■ Mounting Hole Dimensions



■ Terminal Layout / Circuit Diagram

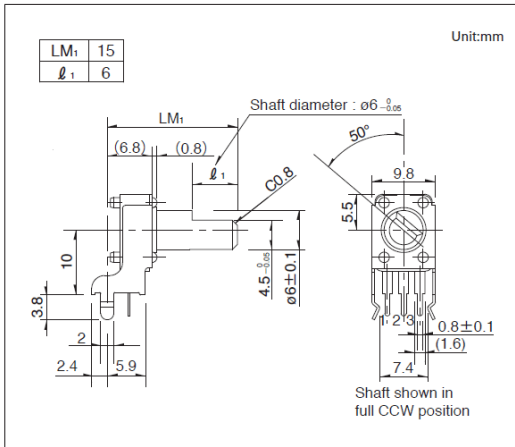


Viewed from mounting side.

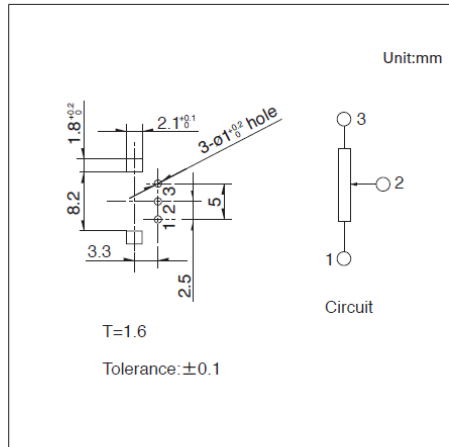
9mm Size Insulated Shaft Snap-in Type
RK09K/RK09D Series

Drawing No.9

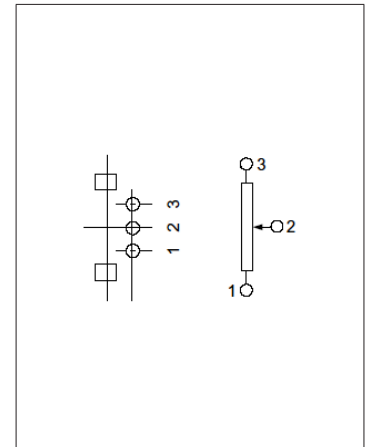
■ Dimensions



■ Mounting Hole Dimensions



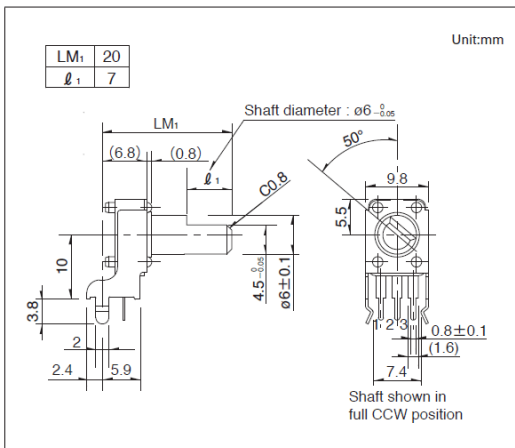
■ Terminal Layout / Circuit Diagram



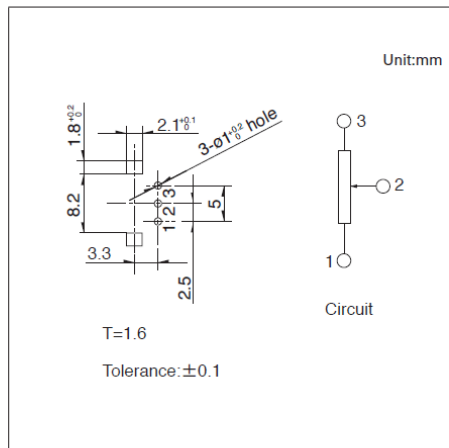
Viewed from mounting side.

Drawing No.10

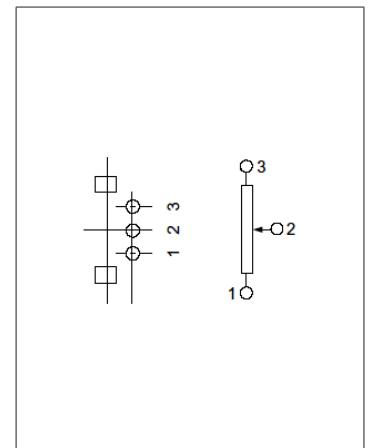
■ Dimensions



■ Mounting Hole Dimensions



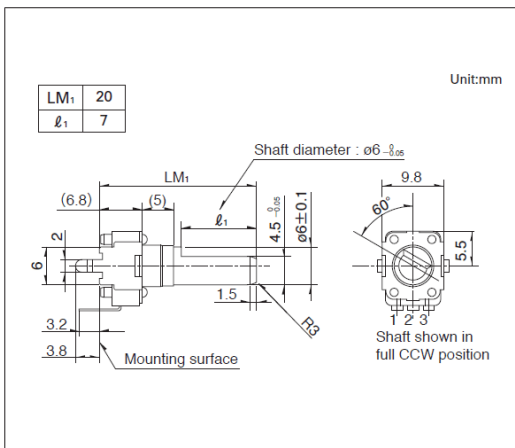
■ Terminal Layout / Circuit Diagram



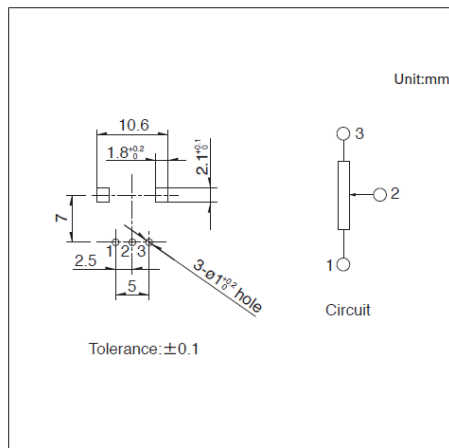
Viewed from mounting side.

Drawing No.11

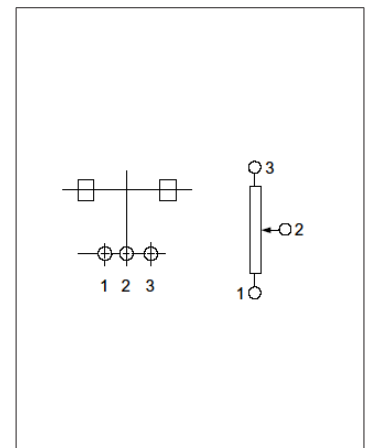
■ Dimensions



■ Mounting Hole Dimensions



■ Terminal Layout / Circuit Diagram

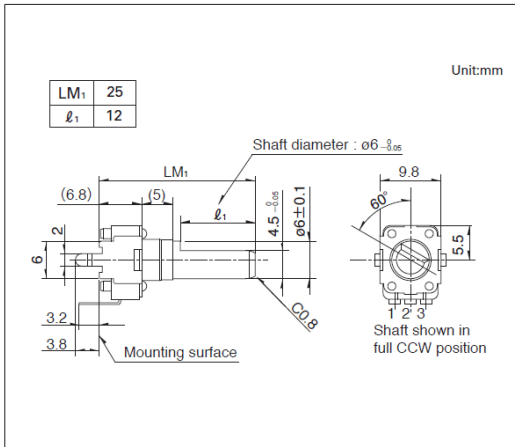


Viewed from mounting side.

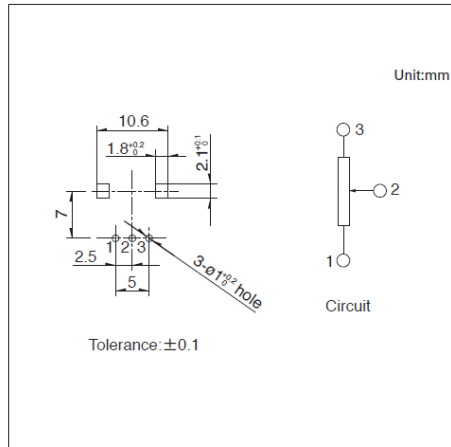
9mm Size Insulated Shaft Snap-in Type
RK09K/RK09D Series

Drawing No.12

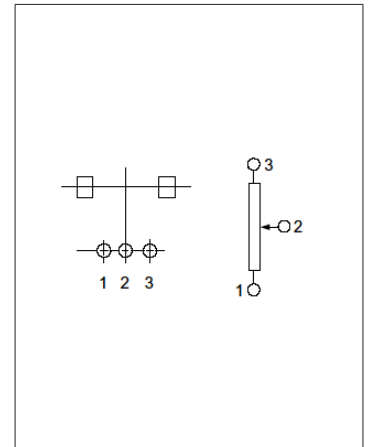
■ Dimensions



■ Mounting Hole Dimensions



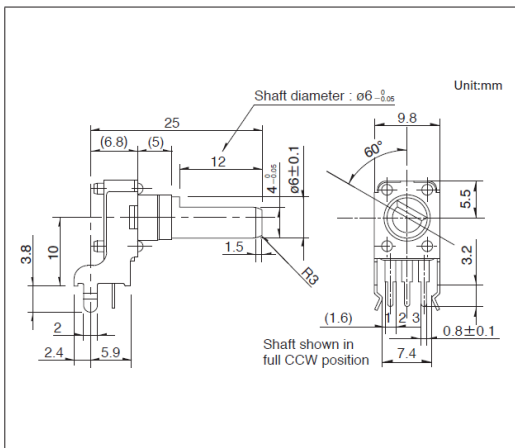
■ Terminal Layout / Circuit Diagram



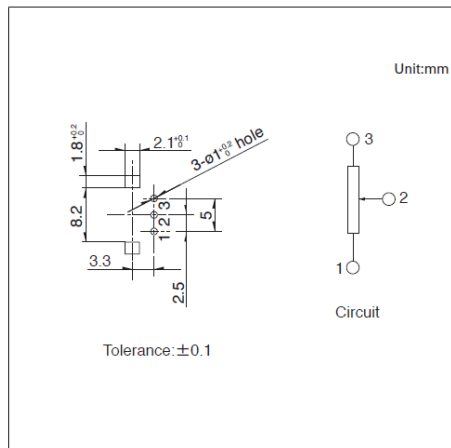
Viewed from mounting side.

Drawing No.13

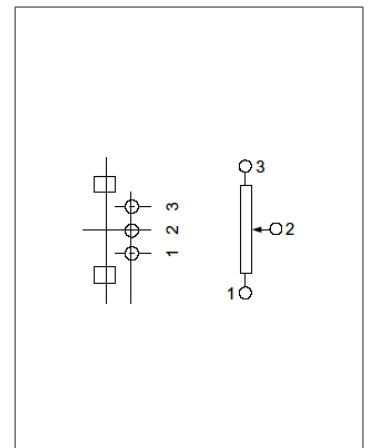
■ Dimensions



■ Mounting Hole Dimensions



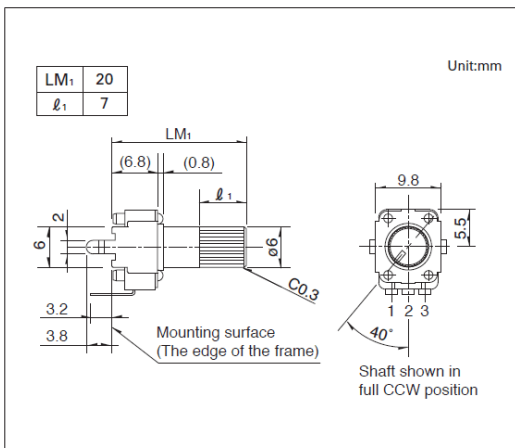
■ Terminal Layout / Circuit Diagram



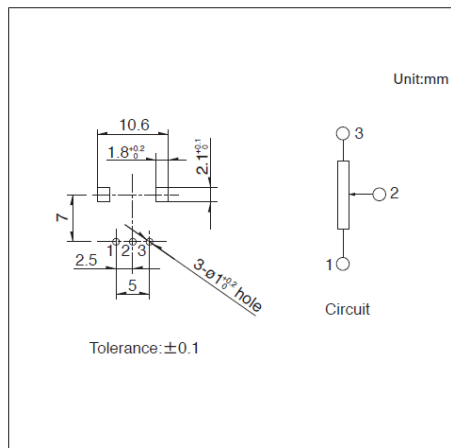
Viewed from mounting side.

Drawing No.14

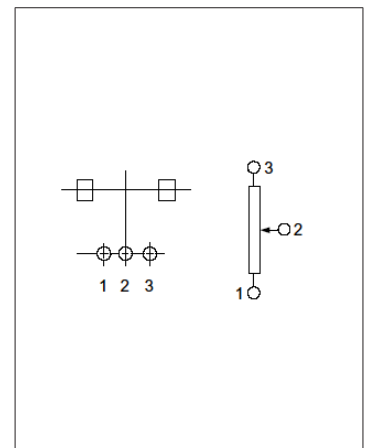
■ Dimensions



■ Mounting Hole Dimensions



■ Terminal Layout / Circuit Diagram



Viewed from mounting side.

Potentiometers Rotary Potentiometer (Insulated shaft type)

9mm Size Insulated Shaft Long-life Type
RK09Y11L Series

Compact design with a rotational life of 1 million cycles.



- Total resistance tolerance: ±30%
- Maximum operating voltage: 50V AC, 5V DC
- Rotational torque: 5mN·m max.
- Operating life: 1,000,000 cycles
- Operating temperature range: -10°C to +70°C

Applications: Game: Home handheld consoles, Virtual/augmented reality

■ Product List

Products No.	Number of resistor elements	Control part orientation	Shaft types	Length of the shaft	Detent	Total resistance	Resistance taper	Automotive	Drawing No.
RK09Y11L0001	Single-unit	Horizontal	Flat	12.0mm	Without	10kΩ	Linear	—	1

⚠ Note

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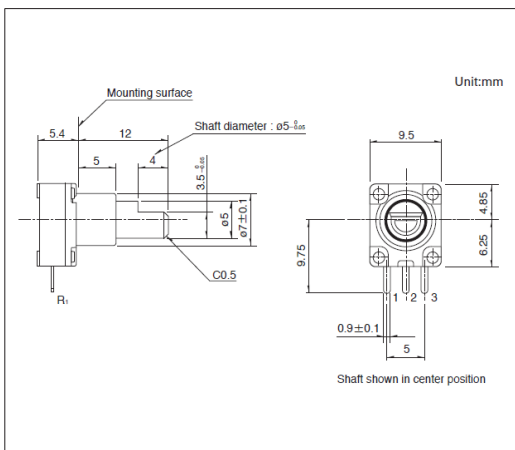
■ Packing Specifications

Bulk

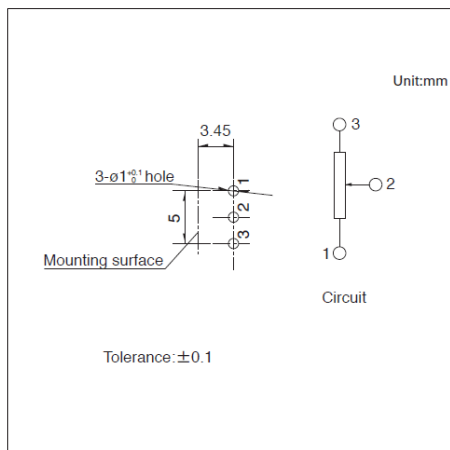
Number of packages (pcs.)		Export package measurements (mm)
1 case / Japan	1 case / export packing	
3,500	7,000	528 x 369 x 178

Drawing No. 1

■ Dimensions



■ Mounting Hole Dimensions

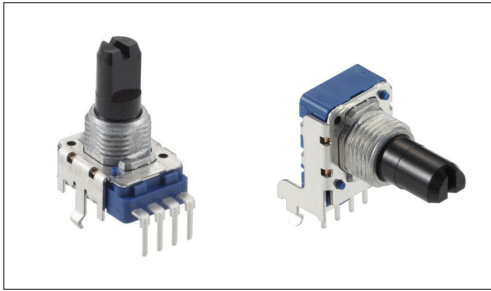


Viewed from mounting side.

Potentiometers Rotary Potentiometer (Insulated shaft type)

1 mm Size Insulated Shaft Snap-in Type RK1 1K Series

Body width of 1 mm, widely compatible with audio, video, and electronic musical instruments.



- Total resistance tolerance: ±20%
- Maximum operating voltage: 50V AC, 20V DC
- Rotational torque: 3 to 20mN·m
- Operating life: 15,000 cycles
- Operating temperature range: -10°C to +70°C

Applications: Home: Major home appliances, Office equipment
Audio_TV: Visual, Audio, Pro audio

■ Product List

Products No.	Number of resistor elements	Control part orientation	Shaft types	Length of the shaft LM1 (mm)	Detent	Total resistance	Resistance taper	Automotive	Drawing No.
RK11K1140AHZ	Single-unit	Vertical	Flat	22.5	Without	10kΩ	15A	—	1
RK11K1140097	Single-unit	Vertical	Flat	22.5	Center detent	10kΩ	1B	—	
RK11K1120A13	Single-unit	Horizontal	Flat	22.5	Without	10kΩ	15A	—	2
RK11K112000P	Single-unit	Horizontal	Flat	22.5	Center detent	10kΩ	1B	—	

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3. Products other than those listed in above products are also available. Please contact us for details.
4. Nut and washer are not attached. Please specify if required.

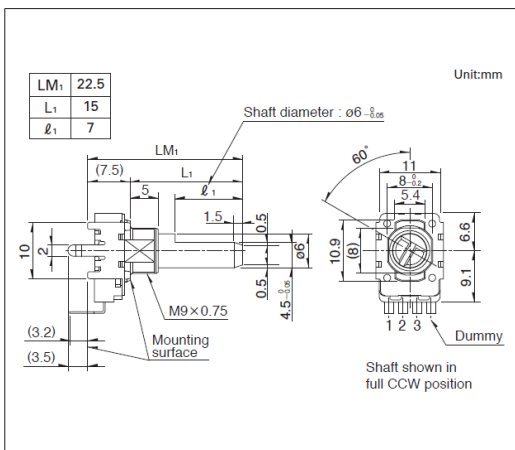
■ Packing Specifications

Tray

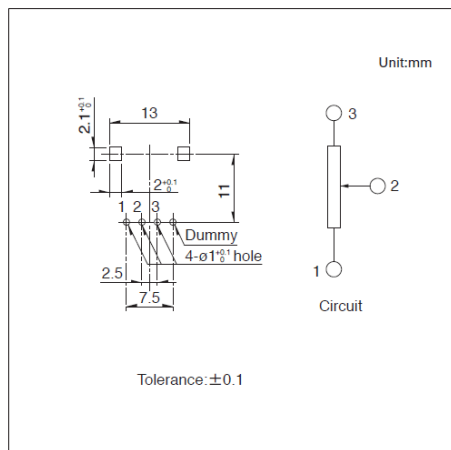
Number of packages (pcs.)		Export package measurements (mm)
1 case / Japan	1 case / export packing	
1,000	2,000	543 x 377 x 250

Drawing No. 1

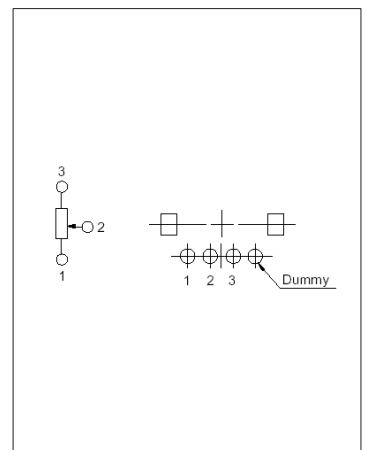
■ Dimensions



■ Mounting Hole Dimensions



■ Terminal Layout / Circuit Diagram

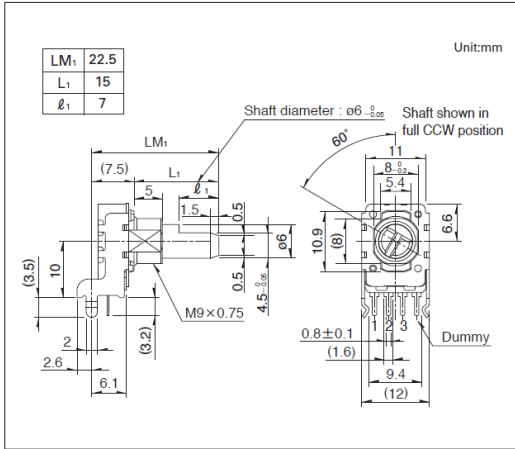


Viewed from mounting side.

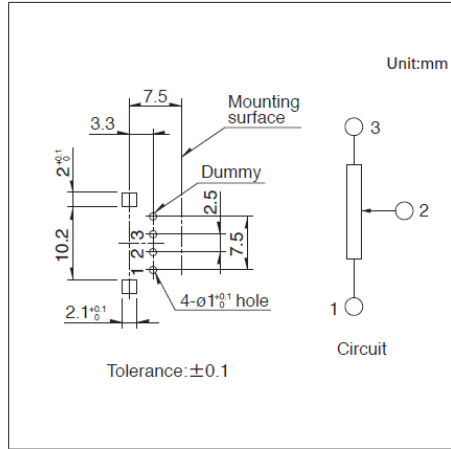
11 mm Size Insulated Shaft Snap-in Type
RK11K Series

Drawing No.2

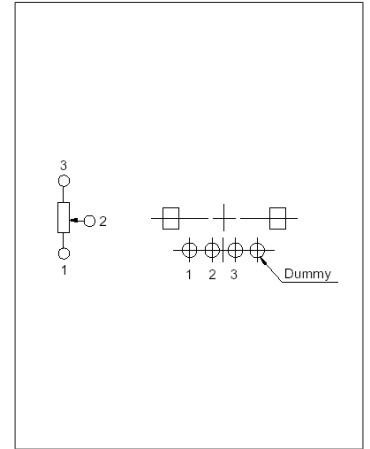
■ Dimensions



■ Mounting Hole Dimensions



■ Terminal Layout / Circuit Diagram

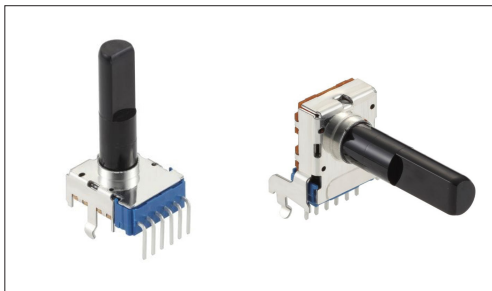


Viewed from mounting side.

Potentiometers Rotary Potentiometer (Insulated shaft type)

12mm Size Insulated Shaft Snap-in Type RK12L Series

Body width of 12mm, delivering high performance.



- Total resistance tolerance: $\pm 20\%$
- Maximum operating voltage: 50V AC for AC only
- Rotational torque: 2 to 15mN·m
- Operating life: 15,000 cycles
- Operating temperature range: -10°C to $+70^{\circ}\text{C}$

Applications: Home: Major home appliances, Office equipment
Audio_TV: Visual, Audio, Pro audio

■ Product List

Products No.	Number of resistor elements	Control part orientation	Shaft types	Length of the shaft LM1 (mm)	Detent	Total resistance	Resistance taper	Automotive	Drawing No.
RK12L1230C1K	Dual-unit	Vertical	Flat	25.0	Center detent	10k Ω	1B	—	1
RK12L1230C0Q	Dual-unit	Vertical	Flat	25.0	Without	10k Ω	1B	—	
RK12L123000G	Dual-unit	Vertical	Flat	30.0	Center detent	10k Ω	1B	—	2
RK12L1230A08	Dual-unit	Vertical	Flat	30.0	Without	10k Ω	1B	—	
RK12L1210C1T	Dual-unit	Horizontal	Flat	30.0	Center detent	10k Ω	1B	—	3
RK12L1210C0V	Dual-unit	Horizontal	Flat	30.0	Without	10k Ω	1B	—	
RK12L12C0A0E	Dual-unit	Vertical	Flat	25.0	Without	10k Ω	15A	—	1
RK12L12C0A0G	Dual-unit	Vertical	Flat	30.0	Without	10k Ω	15A	—	2
RK12L12A0C0R	Dual-unit	Horizontal	Flat	30.0	Without	10k Ω	15A	—	3

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■ Packing Specifications

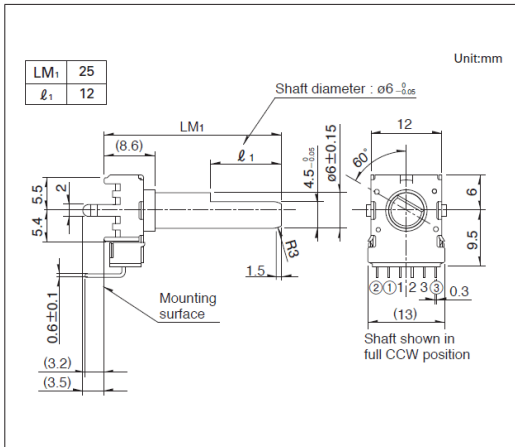
Tray

Number of packages (pcs.)		Export package measurements (mm)
1 case / Japan	1 case / export packing	
800	1,600	543 x 377 x 250

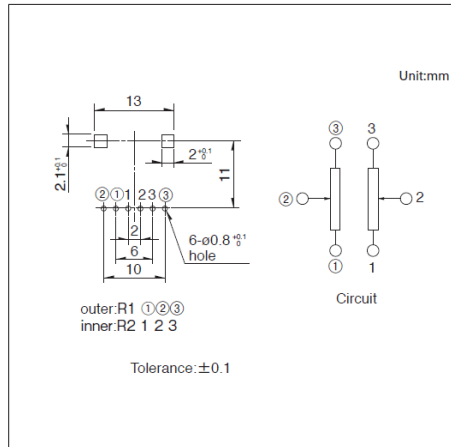
12mm Size Insulated Shaft Snap-in Type
RK12L Series

Drawing No.1

■ Dimensions



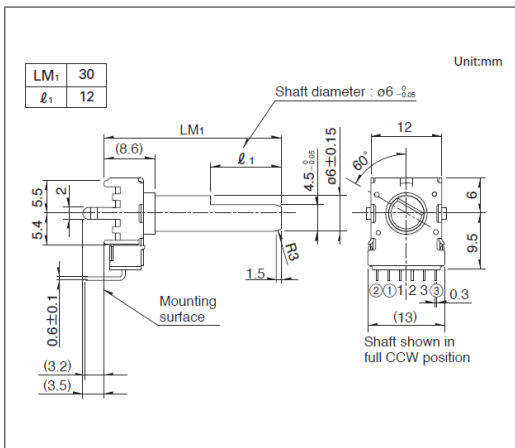
■ Mounting Hole Dimensions



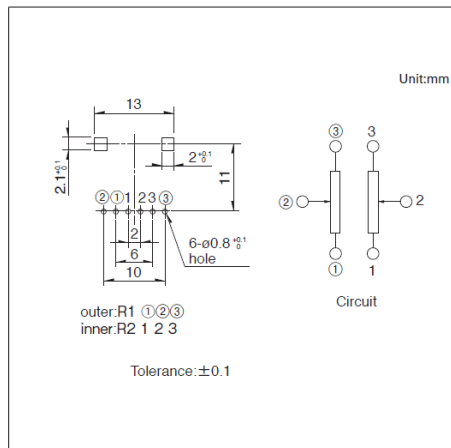
Viewed from mounting side.

Drawing No.2

■ Dimensions



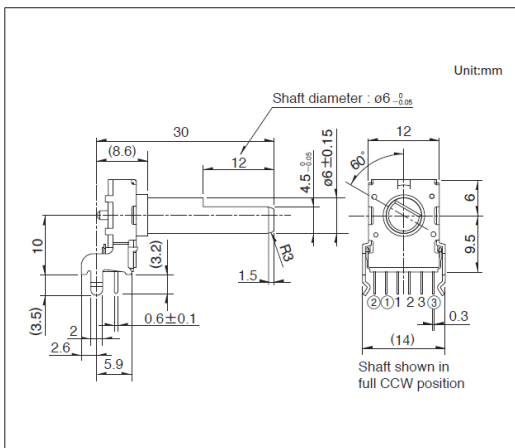
■ Mounting Hole Dimensions



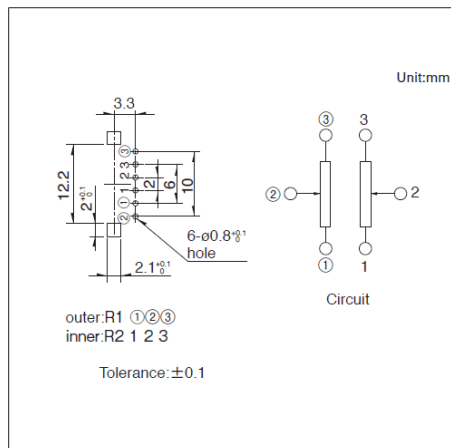
Viewed from mounting side.

Drawing No.3

■ Dimensions



■ Mounting Hole Dimensions

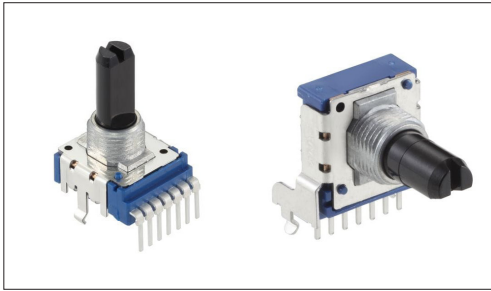


Viewed from mounting side.

Potentiometers Rotary Potentiometer (Insulated shaft type)

14mm Size Insulated Shaft Snap-in Type RK14K Series

Body width of 14mm, widely compatible with audio, video, and electronic musical instruments.



- Total resistance tolerance: ±20%
- Maximum operating voltage: 50V AC for AC only
- Rotational torque: 3 to 20mN·m
- Operating life: 15,000 cycles
- Operating temperature range: -10°C to +70°C

Applications: Home: Major home appliances, Office equipment
Audio_TV: Visual, Audio, Pro audio

■ Product List

Products No.	Number of resistor elements	Control part orientation	Shaft types	Length of the shaft LM1 (mm)	Detent	Total resistance	Resistance taper	Automotive	Drawing No.
RK14K124003H	Dual-unit	Vertical	Flat	22.5	Center detent	10kΩ	1B	—	1
RK14K1220012	Dual-unit	Horizontal	Flat	22.5	Center detent	10kΩ	1B	—	2
RK14K12D0A5V	Dual-unit	Vertical	Flat	22.5	Without	10kΩ	15A	—	3
RK14K12B0A0E	Dual-unit	Horizontal	Flat	22.5	Without	10kΩ	15A	—	4

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4. Nut and washer are not attached. Please specify if required.

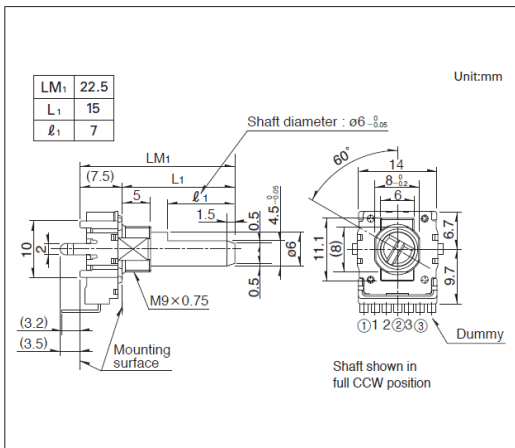
■ Packing Specifications

Tray

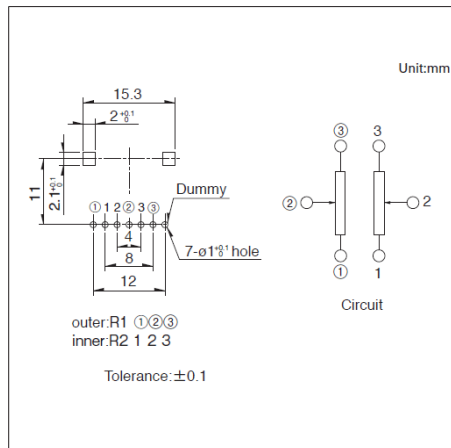
Number of packages (pcs.)		Export package measurements (mm)
1 case / Japan	1 case / export packing	
1,000	2,000	543 x 377 x 250

Drawing No. 1

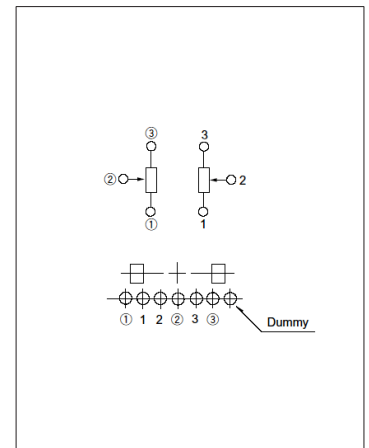
■ Dimensions



■ Mounting Hole Dimensions



■ Terminal Layout / Circuit Diagram

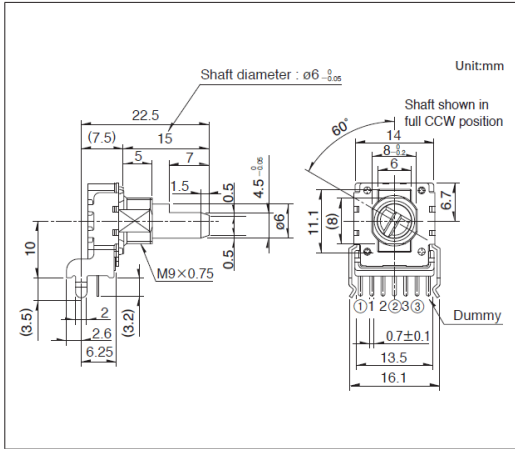


Viewed from mounting side.

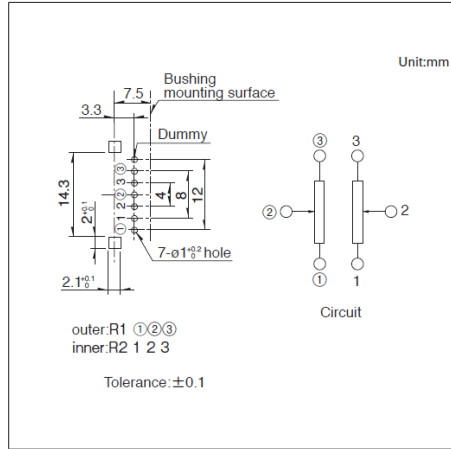
14mm Size Insulated Shaft Snap-in Type
RK14K Series

Drawing No.2

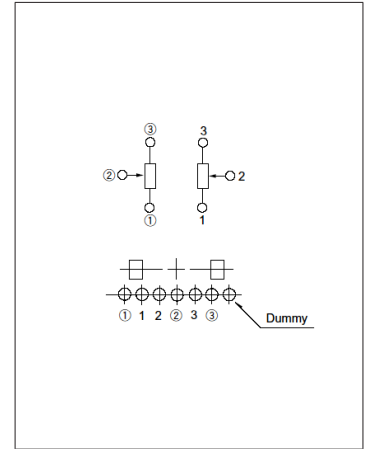
■ Dimensions



■ Mounting Hole Dimensions



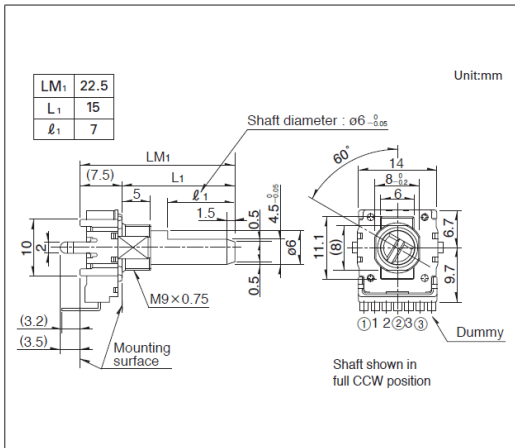
■ Terminal Layout / Circuit Diagram



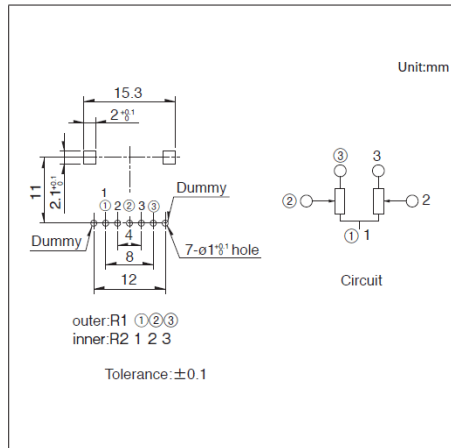
Viewed from mounting side.

Drawing No.3

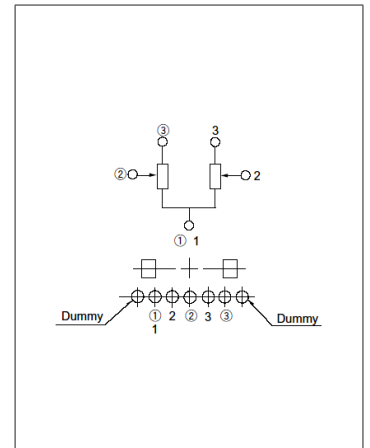
■ Dimensions



■ Mounting Hole Dimensions



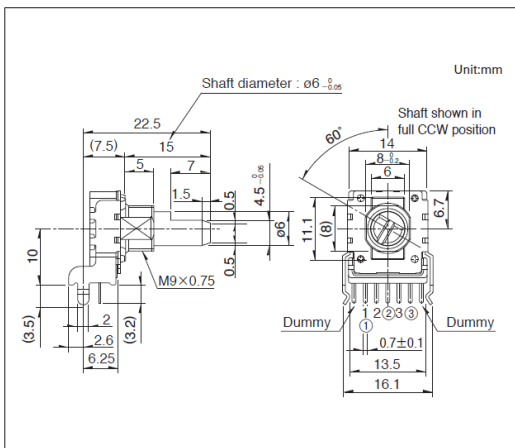
■ Terminal Layout / Circuit Diagram



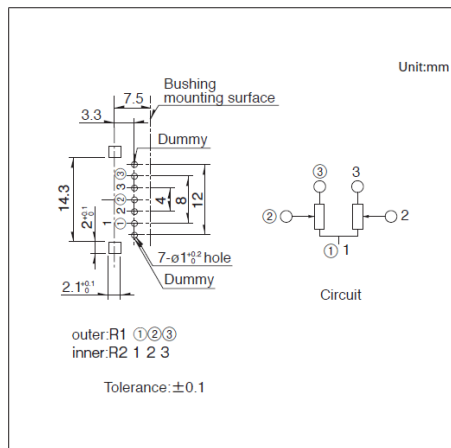
Viewed from mounting side.

Drawing No.4

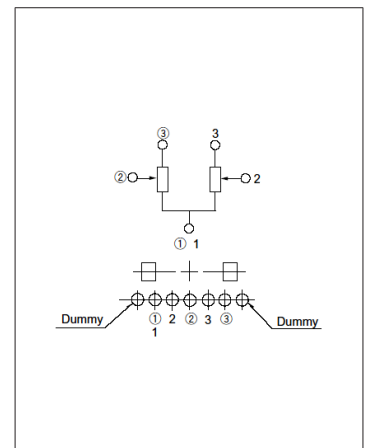
■ Dimensions



■ Mounting Hole Dimensions



■ Terminal Layout / Circuit Diagram



Viewed from mounting side.

Rotary Potentiometer (Insulated shaft type) / Soldering Conditions

■ Reference for Manual Soldering

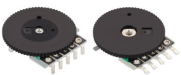
Series	Tip temperature	Soldering time	No. of solders
RK09D, RK09K, RK09Y11L, RK11K, RK12L, RK14K	350°C max.	3s max.	1 time

■ Reference for Dip Soldering

Series	Preheating		Dip soldering		No. of solders
	Soldering surface temperature	Heating time	Soldering temperature	Soldering time	
RK12L	100°C	1 min. max.	260°C max.	5s max.	2 time max.

Rotary Potentiometer (Knob operating type)

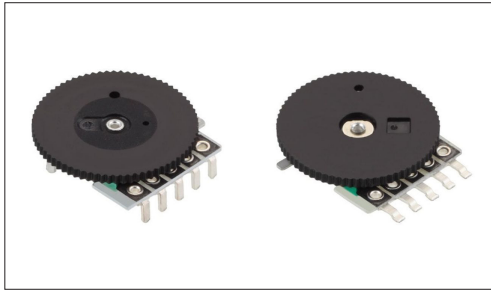
List of Varieties

Series		RK10J
Photo		
Dimensions		10mm Size
Number of resistor elements		Dual-unit Single-unit
Soldering		Manual Reflow
Mounting board types		Insertion (t: 2mm) Surface mounting
Operating temperature range		-10°C to +60°C
Operating life (cycles)		10,000
Electrical performance	Total resistance	10kΩ
	Resistance taper	1B 15A
	Total resistance tolerance	±30%
	Rated power	0.03W
	Maximum operating voltage	50V AC 50V AC, 20V DC
	For DC use	20V DC Not applicable
	Insulation resistance	100MΩ min. 100V DC
	Voltage proof	100V AC for 1 minute
Mechanical performance	Total rotational angle	270° ±10°
	Rotational torque	0.5 to 10mN·m
	Stopper strength	70mN·m
	Push-pull strength	5N
Automotive		—

Potentiometers Rotary Potentiometer (Knob operating type)

With Knob Type RK10J Series

Thin-profile design compatible with reflow and dip mounting methods.



- Total resistance tolerance: $\pm 30\%$
- Maximum operating voltage: 50V AC, 20V DC
- Rotational torque: 0.5 to 10mN·m
- Operating life: 10,000 cycles
- Operating temperature range: -10°C to $+60^{\circ}\text{C}$

Applications: Home: Major home appliances, Office equipment
Audio_TV: Visual, Audio

Product List

Products No.	Number of resistor elements	Soldering	Knob types	Mounting board types	For DC use	Total resistance	Resistance taper	Automotive	Drawing No.
RK10J11E0034	Single-unit	Manual	Outer size: $\phi 14$ Knob thickness: t0.9mm Color: Black	Insertion (t: 2mm)	20V DC	10k Ω	1B	—	1
RK10J12E0A0A	Dual-unit	Manual	Outer size: $\phi 14$ Knob thickness: t0.9mm Color: Black	Insertion (t: 2mm)	Not applicable	10k Ω	15A	—	2
RK10J11R0A0L	Single-unit	Reflow	Outer size: $\phi 14$ Knob thickness: t1.0mm Color: Black	Surface mounting	20V DC	10k Ω	1B	—	3
RK10J12R0A0B	Dual-unit	Reflow	Outer size: $\phi 14$ Knob thickness: t1.0mm Color: Black	Surface mounting	Not applicable	10k Ω	15A	—	4

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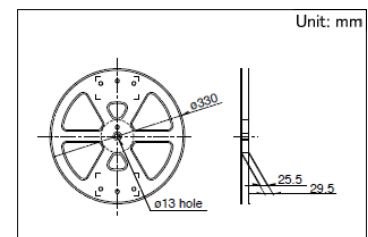
Packing Specifications

Bulk

Products No.	Number of packages(pcs.)		Export package measurements (mm)
	1 case / Japan	1 case / export packing	
RK10J11E0034 RK10J12E0A0A	3,000	2,400	371 x 250 x 190

Taping

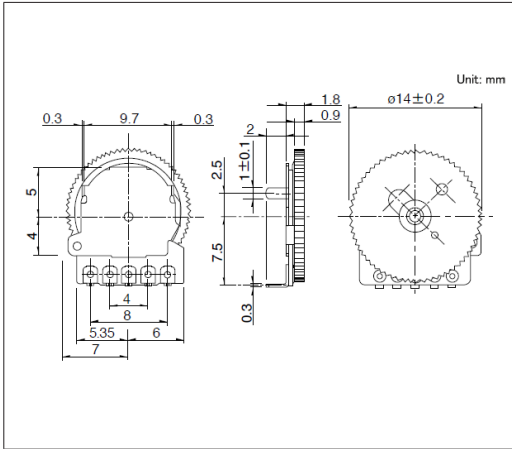
Products No.	Number of packages(pcs.)			Tape width (mm)	Export package measurements (mm)
	1 reel	1 case / Japan	1 case / export packing		
RK10J11R0A0L RK10J12R0A0B	1,000	3,000	3,000	24	401 x 397 x 139



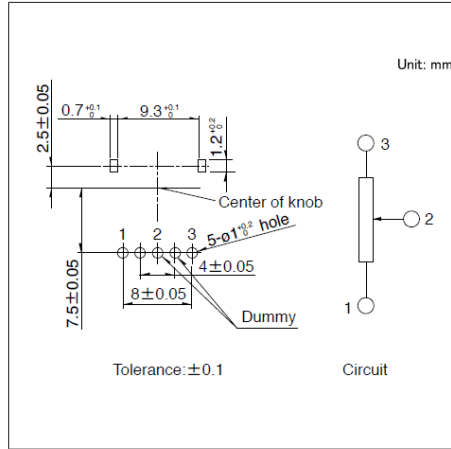
With Knob Type
RK10J Series

Drawing No.1

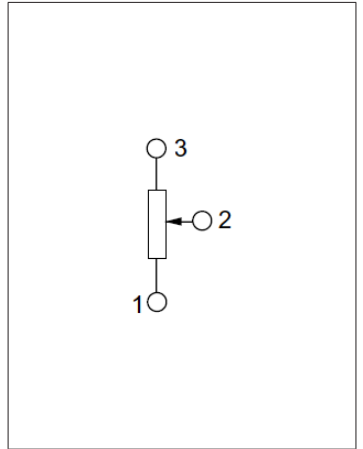
■ Dimensions



■ Mounting Hole Dimensions



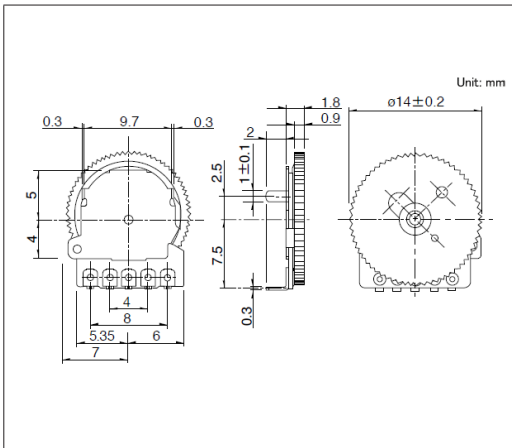
■ Circuit Diagram



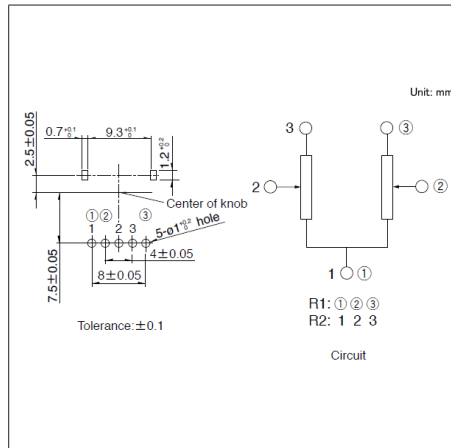
Viewed from mounting side.

Drawing No.2

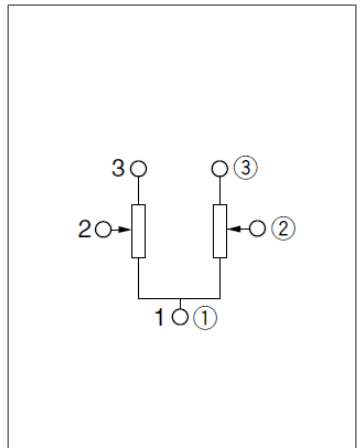
■ Dimensions



■ Mounting Hole Dimensions



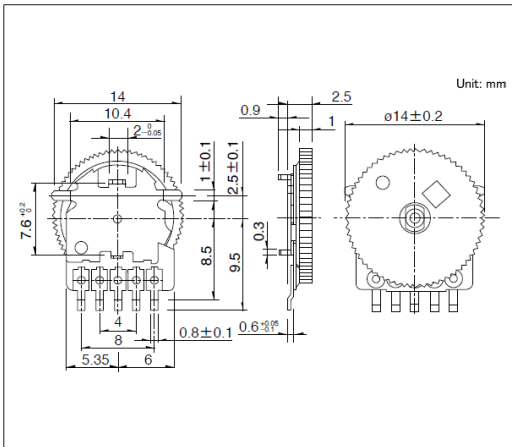
■ Circuit Diagram



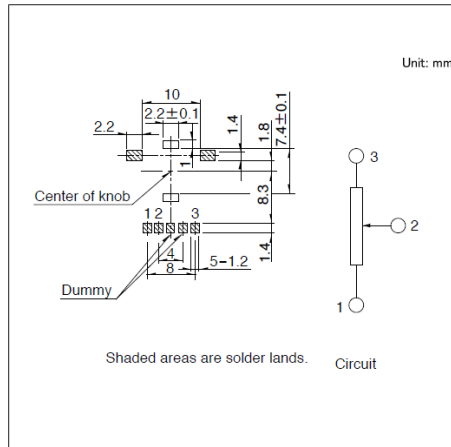
Viewed from mounting side.

Drawing No.3

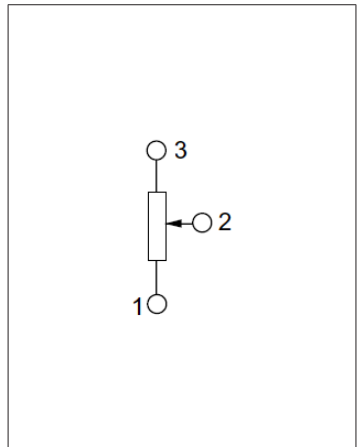
■ Dimensions



■ Mounting Hole Dimensions



■ Circuit Diagram

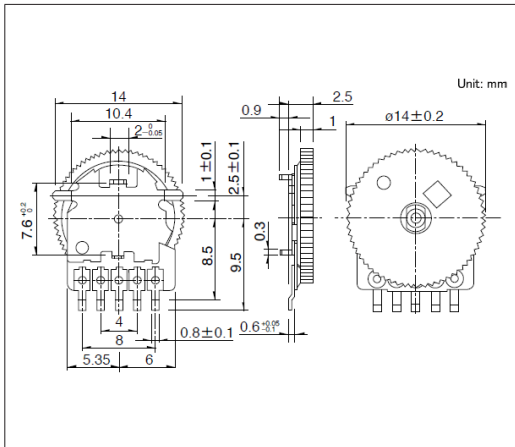


Viewed from mounting side.

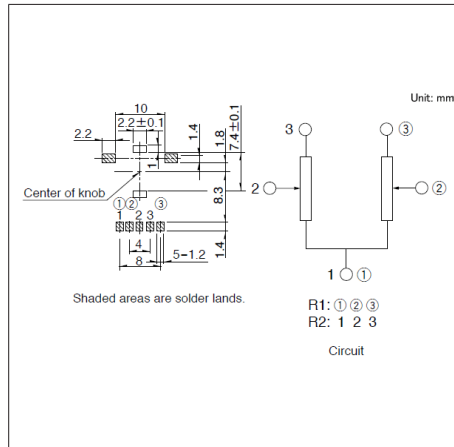
With Knob Type
RK10J Series

Drawing No.4

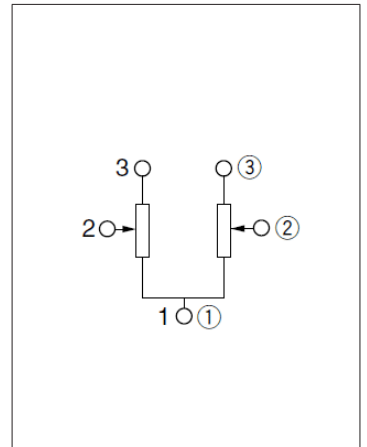
■ Dimensions



■ Mounting Hole Dimensions



■ Circuit Diagram



Viewed from mounting side.

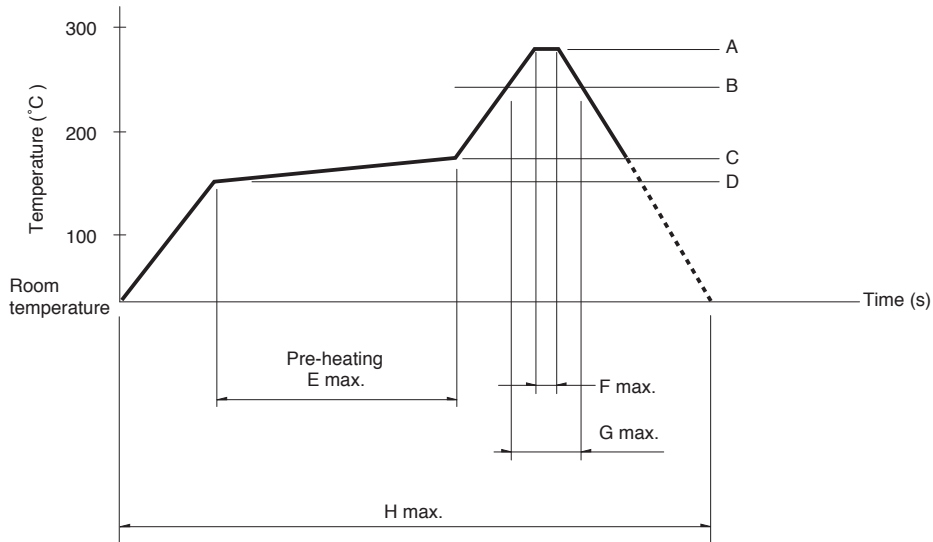
Rotary Potentiometer (Knob operating type) / Soldering Conditions

■ Reference for Manual Soldering

Series	Tip temperature	Soldering time	No. of solders
RK10J	350°C max.	3s max.	1 time

■ Example of Reflow Soldering Condition

Temperature profile





Series	A	B	C	D	E	F	G	H	No. of reflows
RK10J1□R	250°C	200°C	150°C	150°C	2 min.	3s	40s	4 min.	2 time max.

⚠️ Note

1. When using an infrared reflow oven, solder may sometimes not be applied. Be sure to use a hot air reflow oven or a type that uses infrared rays in combination with hot air.
2. The temperatures given above are the maximum temperatures at the terminals of the potentiometer when employing a hot air reflow method. The temperature of the PC board and the surface temperature of the potentiometer may vary greatly depending on the PC board material, its size and thickness. Ensure that the surface temperature of the potentiometer does not rise to 250°C or greater.
3. Conditions vary to some extent depending on the type of reflow bath used. Be sure to give due consideration to this prior to use.

Rotary Potentiometer (Ring type)

List of Varieties

Series		RK39A	RK45C
Photo			
Dimensions		39mm size	45mm size
Number of resistor elements		Single-unit	
Number of positions		6/17	17
Total rotational angle		180° ±5° 220° ±5° 270° ±5° (290° max.)	220° ±5° (290° max.)
Detent torque		40±16mN·m 50±20mN·m	40±16mN·m
Operating temperature range		-40°C to +85°C	
Operating life (cycles)		30,000	
Electrical performance	Total resistance	5kΩ	
	Resistance taper	B	
	Total resistance tolerance	±20%	
	Rated power	0.05W	
	Maximum operating voltage	50V AC, 30V DC	
	Insulation resistance	10MΩ min. 50V DC	
	Voltage proof	50V AC for 1 minute	
Mechanical performance	Stopper strength	1N·m	
	Push-pull strength	100N (Push), 50N (Pull)	
	Vibration	10 to 55 to 10Hz/min., the amplitude is 1.5mm for all the frequencies, in the 3 direction of X, Y and Z for 2 hours respectively	
Automotive		●	●

Note

● Indicates applicability to all products in the series, while ○ indicates applicability to some products in the series.

Potentiometers Rotary Potentiometer (Ring type)

39mm Size LED Illuminated Type RK39A Series

LED-illuminated volume optimized for knob designs in various set devices.



Automotive

- Total resistance tolerance: $\pm 20\%$
- Maximum operating voltage: 50V AC, 30V DC
- Operating life: 30,000 cycles
- Operating temperature range: -40°C to $+85^{\circ}\text{C}$

Applications: Automotive: Navigation/audio systems, HVAC

■ Product List

Products No.	Total rotational angle	Detent	Detent torque	Total resistance	Resistance taper	Automotive	Drawing No.
RK39A1A00007	$220^{\circ}\pm 5^{\circ}$ (290° max.)	17-position	$40\pm 16\text{mN}\cdot\text{m}$	5k Ω	B	●	1
RK39A1A00027	$180^{\circ}\pm 5^{\circ}$ (290° max.)	17-position	$50\pm 20\text{mN}\cdot\text{m}$	5k Ω	B	●	2
RK39A1A00028	$270^{\circ}\pm 5^{\circ}$ (290° max.)	6-position	$50\pm 20\text{mN}\cdot\text{m}$	5k Ω	B	●	1

Note

1. This catalog shows only outline specifications. When using the products, please obtain formal specifications for supply.
2. Please place purchase orders per minimum order unit (integer).
3. Products other than those listed in above products are also available. Please contact us for details.
4. We can also provide LED colors other than the above mentioned. Contact us if you have such requirements.

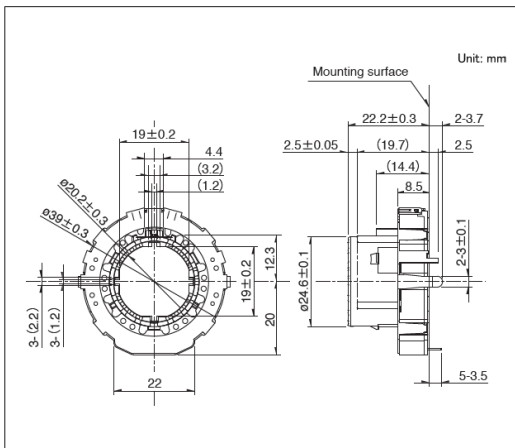
■ Packing Specifications

Tray

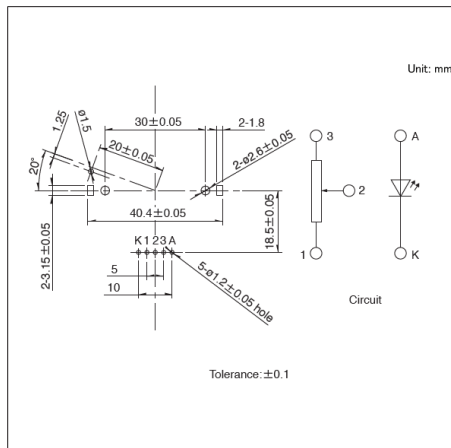
Number of packages (pcs.)		Export package measurements (mm)
1 case / Japan	1 case / export packing	
250	500	540 x 360 x 380

Drawing No.1

■ Dimensions



■ Mounting Hole Dimensions

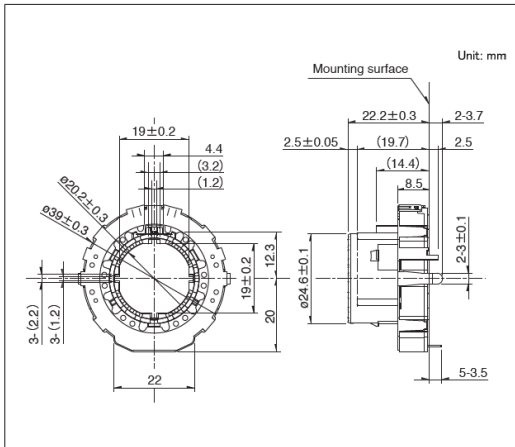


Potentiometers Rotary Potentiometer (Ring type)

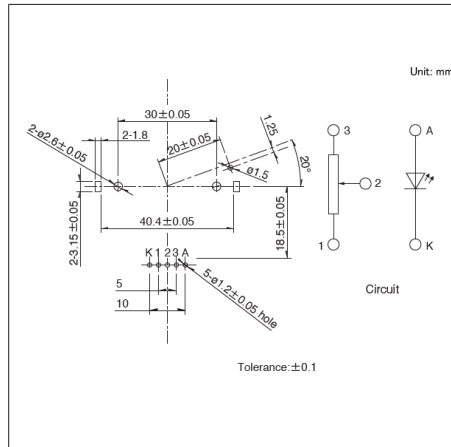
39mm Size LED Illuminated Type
RK39A Series

Drawing No.2

■ Dimensions



■ Mounting Hole Dimensions



Potentiometers Rotary Potentiometer (Ring type)

45mm Size LED Illuminated Type RK45C Series

LED-illuminated volume optimized for knob designs in various set devices.


 Automotive



- Total resistance tolerance: $\pm 20\%$
- Maximum operating voltage: 50V AC, 30V DC
- Operating life: 30,000 cycles
- Operating temperature range: -40°C to $+85^{\circ}\text{C}$

Applications: Automotive: Navigation/audio systems, HVAC

Product List

Products No.	Total rotational angle	Detent	Detent torque	Total resistance	Resistance taper	Automotive	Drawing No.
RK45C1A00003	$220^{\circ}\pm 5^{\circ}$ (290° max.)	17-position	$40\pm 16\text{mN}\cdot\text{m}$	5k Ω	B		1

Note

1. This catalog shows only outline specifications. When using the products, please obtain formal specifications for supply.
2. Please place purchase orders per minimum order unit (integer).
3. Products other than those listed in above products are also available. Please contact us for details.
4. We can also provide LED colors other than the above mentioned. Contact us if you have such requirements.

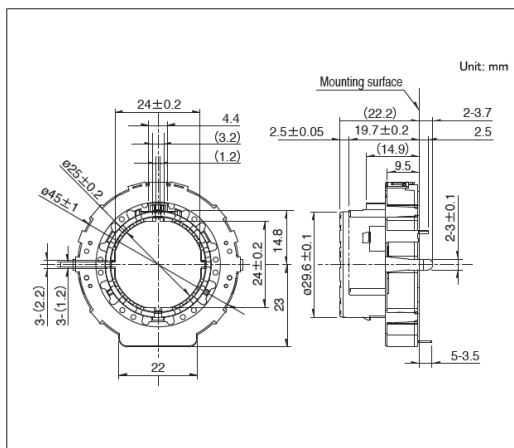
Packing Specifications

Tray

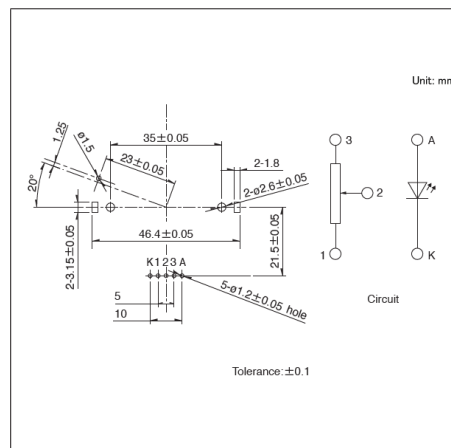
Number of packages (pcs.)		Export package measurements (mm)
1 case / Japan	1 case / export packing	
200	400	540 x 360 x 380

Drawing No. 1

Dimensions



Mounting Hole Dimensions



Viewed from mounting face.

Rotary Potentiometer (Ring type) / Soldering Conditions

■ Reference for Manual Soldering

Series	Tip temperature	Soldering time	No. of solders
RK39A, RK45C	350°C max.	3s max.	1 time



■ Reference for Dip Soldering

Series	Preheating		Dip soldering		No. of solders
	Soldering surface temperature	Heating time	Soldering temperature	Soldering time	
RK39A, RK45C	100°C max.	2 min. max.	260°C max.	5s max.	2 times max.

Potentiometers

Slide Potentiometer (Standard type)

List of Varieties

Series		RS**1	RS**H
Photo			
Direction of lever	Horizontal	—	●
	Vertical	●	●
Number of resistor elements		Dual-unit Single-unit	
Travel (mm)		15 20 30 45 60	15 20 30
Lever type		4 6 9-1 A B J-1	A C
Length of lever (mm)		5.0 10.0 15.0 20.0	4.5 9.5 14.5
Operating temperature range		-25°C to +70°C	
Operating life (cycles)		15,000	10,000
Electrical performance	Total resistance	10kΩ	10kΩ 50kΩ 100kΩ 250kΩ
	Resistance taper	1B	1B 3B 15A
	Total resistance tolerance	±20%	
	Rated power	0.05W 0.1W 0.125W 0.2W 0.25W	0.012W 0.025W 0.05W 0.1W
	Maximum operating voltage	100V AC, 10V DC 200V AC, 10V DC	50V AC, 10V DC 100V AC, 10V DC 150V AC, 10V DC 200V AC, 10V DC
	Insulation resistance	100MΩ min. 250V DC	
	Voltage proof	300V AC for 1 minute	
Mechanical performance	Operating force	0.3 to 2.5N	0.6(+0.5, -0.4)N
	Stopper strength	50N	30N
	Lever push-pull strength	50N	30N
	Lever wobble (Both side)	1mm 2mm 3mm 4mm	1.6mm max.
	Lever deviation (One side)	0.5mm max.	—
Automotive		●	—



Note

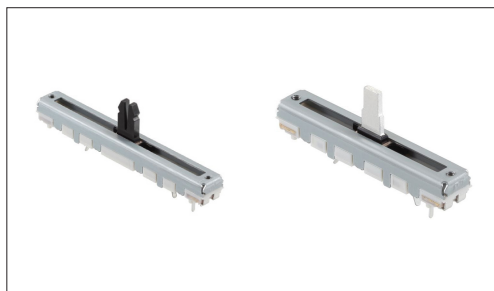
● Indicates applicability to all products in the series, while ○ indicates applicability to some products in the series.

Potentiometers Slide Potentiometer (Standard type)

Super Slide (Standard Type)

RS**1 Series

Wide product variety with auto-dip compatibility.



 Automotive

- Total resistance tolerance: $\pm 20\%$
- Operating life: 15,000 cycles
- Operating temperature range: -25°C to $+70^{\circ}\text{C}$

Applications: Home: Major home appliances, Office equipment
 Audio_TV: Visual, Audio
 Automotive: Navigation/audio systems, HVAC

■ Product List

Products No.	Type	Number of resistor elements	Direction of lever	Travel (mm)	Lever type	Length of lever (mm)	Total resistance	Resistance taper	Detent	Mounting plate	Maximum operating voltage	Automotive	Drawing No.
RS151111J026	Insulated lever	Single-unit	Vertical	15	J-1	5.0	10k Ω	1B	Without	Without	100V AC, 10V DC	●	1
RS201111J011		Single-unit	Vertical	20	J-1	5.0	10k Ω	1B	Without	Without	200V AC, 10V DC	●	2
RS301111A01G		Single-unit	Vertical	30	A	10.0	10k Ω	1B	Without	Without	200V AC, 10V DC	●	3
RS451111B010		Single-unit	Vertical	45	B	10.0	10k Ω	1B	Without	Without	200V AC, 10V DC	●	4
RS151111A9A03	Metal lever	Single-unit	Vertical	15	9-1	10.0	10k Ω	1B	Without	With	100V AC, 10V DC	●	5
RS201111A9A03		Single-unit	Vertical	20	9-1	10.0	10k Ω	1B	Without	With	200V AC, 10V DC	●	6
RS301111A9012		Single-unit	Vertical	30	9-1	10.0	10k Ω	1B	Without	With	200V AC, 10V DC	●	7
RS451111A900F		Single-unit	Vertical	45	9-1	10.0	10k Ω	1B	Without	With	200V AC, 10V DC	●	8
RS601111YA9A07		Single-unit	Vertical	60	9-1	10.0	10k Ω	1B	Without	With	200V AC, 10V DC	●	9
RS301112A900S		Dual-unit	Vertical	30	9-1	10.0	10k Ω	1B	Without	With	200V AC, 10V DC	●	10
RS451112A400G		Dual-unit	Vertical	45	4	20.0	10k Ω	1B	Without	With	200V AC, 10V DC	●	11
RS601112A6A0C		Dual-unit	Vertical	60	6	15.0	10k Ω	1B	Without	With	200V AC, 10V DC	●	12

Note

1. This catalog shows only outline specifications. When using the products, please obtain formal specifications for supply.
2. Please place purchase orders per minimum order unit (integer).
3. Products other than those listed in above products are also available. Please contact us for details.
4. Please read "Lever Types" for the kinds and code of lever type.
5. This products can be used in vehicles. Please contact us for details.

Potentiometers Slide Potentiometer (Standard type)

Super Slide (Standard Type)
RS**1 Series

■ Lever Types

Unit:mm

Metal lever		Insulated lever	
Code	Dimensions	Code	Dimensions
9-2		J-1	
9-1		A	
6		B	
4		C	

■ Packing Specifications

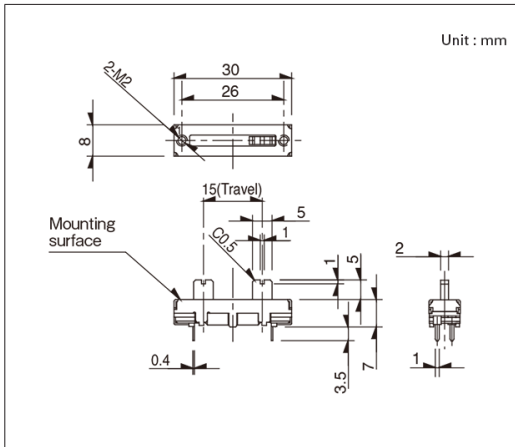
Tray

Products No.	Number of packages (pcs.)		Export package measurements (mm)
	1 case / Japan	1 case / export packing	
RS151111J026 RS201111J011 RS151111A9A03 RS201111A9A03	700	2,800	518 x 378 x 422
RS301111A01G RS301111A9012 RS30112A900S	600	2,400	518 x 378 x 422
RS451111B010 RS451111A900F	1,300	1,300	529 x 373 x 273
RS60111YA9A07 RS60112A6A0C	900	900	529 x 373 x 273
RS45112A400G	1,150	1,150	529 x 373 x 273

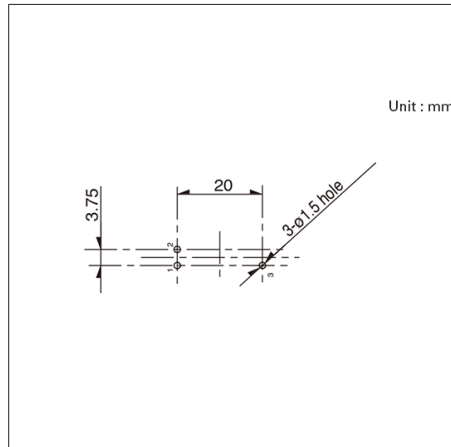
Super Slide (Standard Type)
RS**1 Series

Drawing No.1

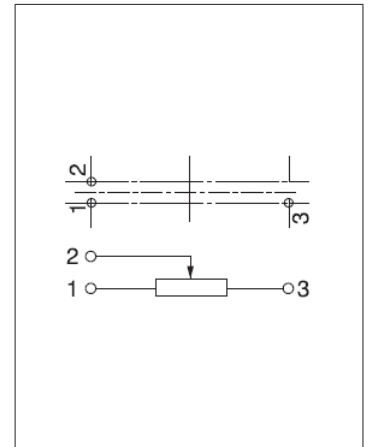
■ Dimensions



■ Mounting Hole Dimensions



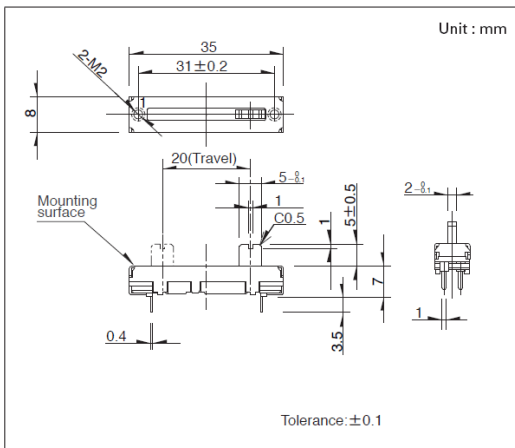
■ Terminal Layout / Circuit Diagram



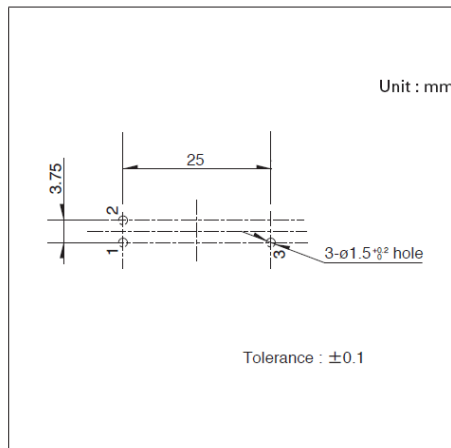
Viewed from mounting side.

Drawing No.2

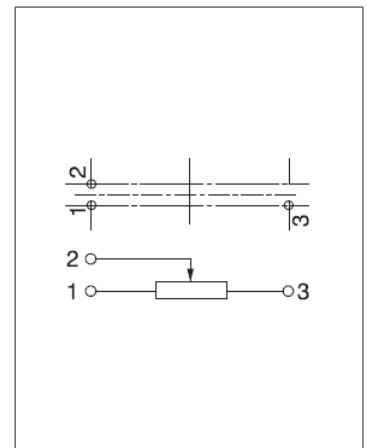
■ Dimensions



■ Mounting Hole Dimensions



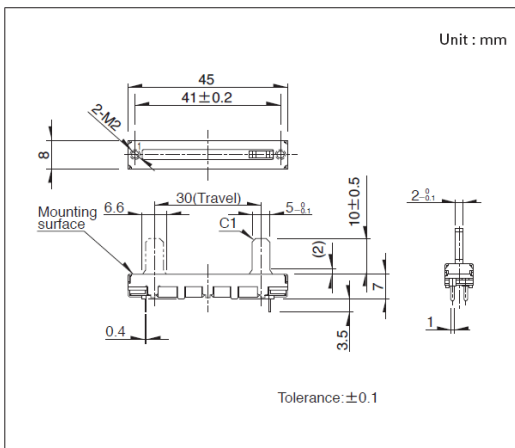
■ Terminal Layout / Circuit Diagram



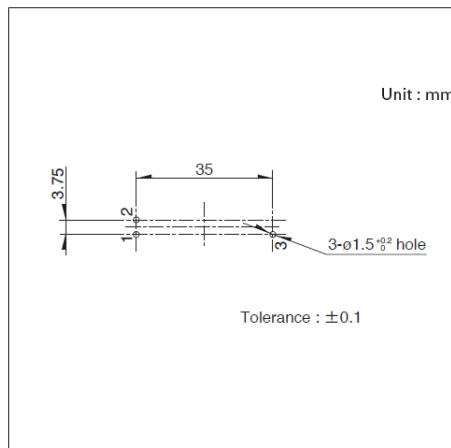
Viewed from mounting side.

Drawing No.3

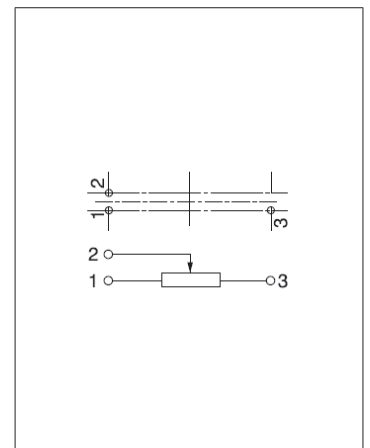
■ Dimensions



■ Mounting Hole Dimensions



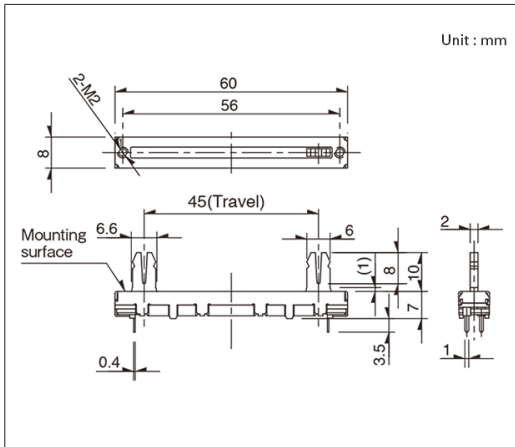
■ Terminal Layout / Circuit Diagram



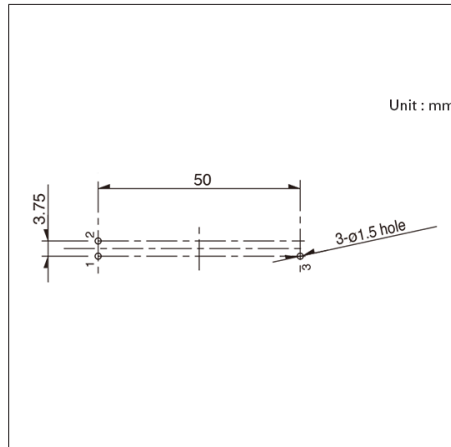
Viewed from mounting side.

Drawing No.4

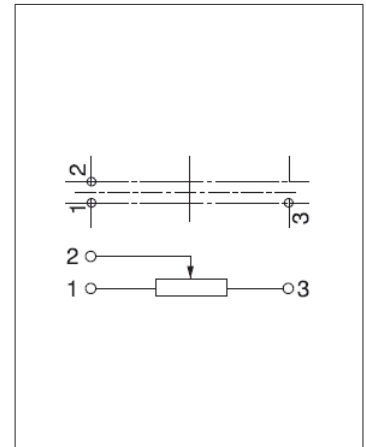
■ Dimensions



■ Mounting Hole Dimensions



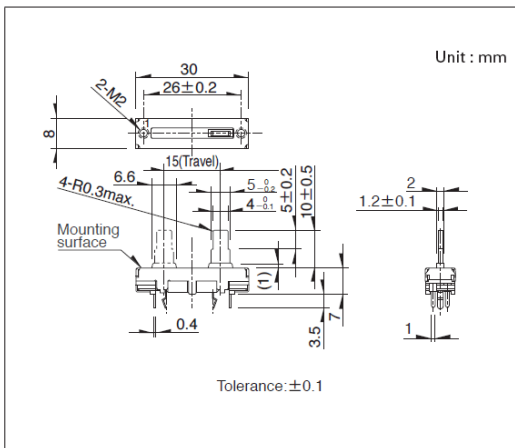
■ Terminal Layout / Circuit Diagram



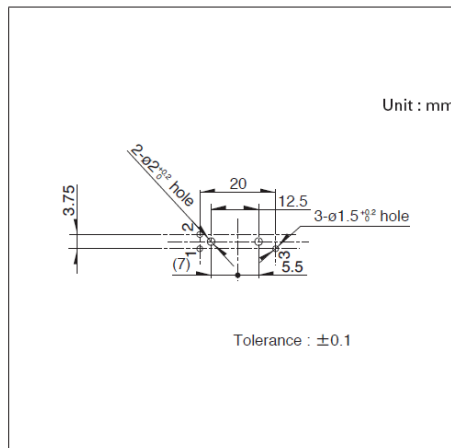
Viewed from mounting side.

Drawing No.5

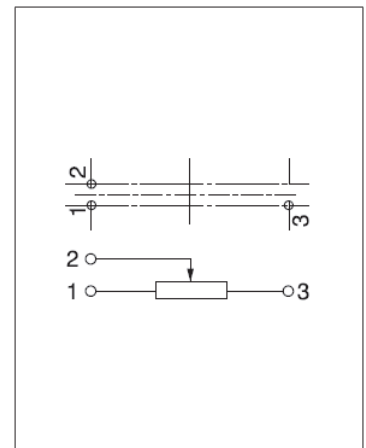
■ Dimensions



■ Mounting Hole Dimensions



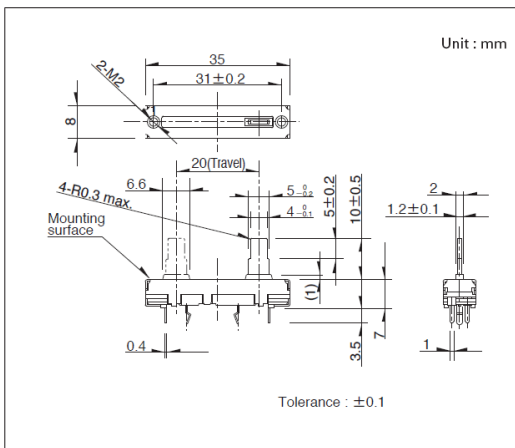
■ Terminal Layout / Circuit Diagram



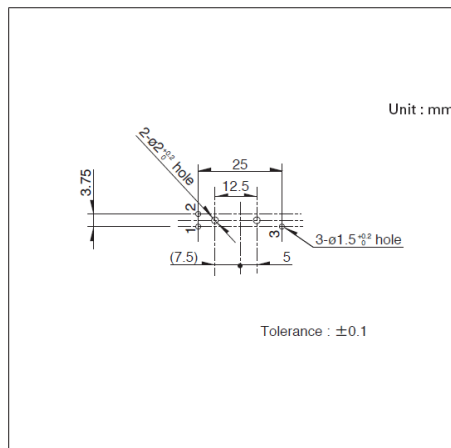
Viewed from mounting side.

Drawing No.6

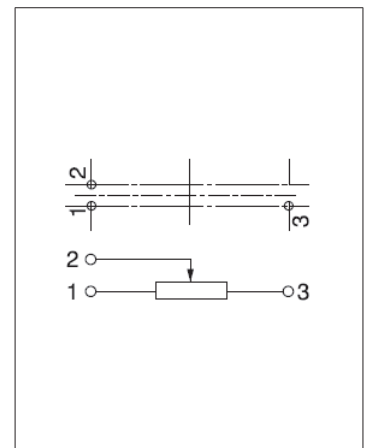
■ Dimensions



■ Mounting Hole Dimensions



■ Terminal Layout / Circuit Diagram

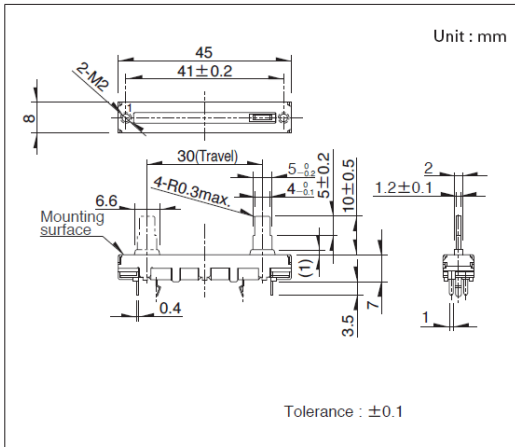


Viewed from mounting side.

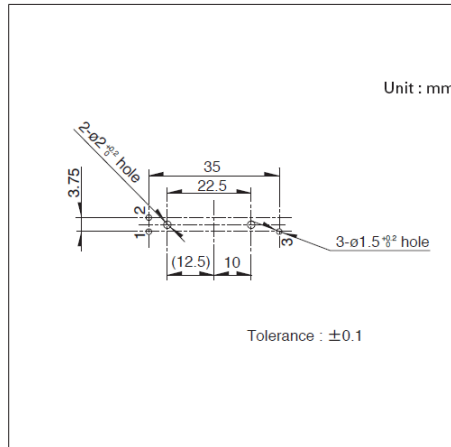
Super Slide (Standard Type)
RS**1 Series

Drawing No.7

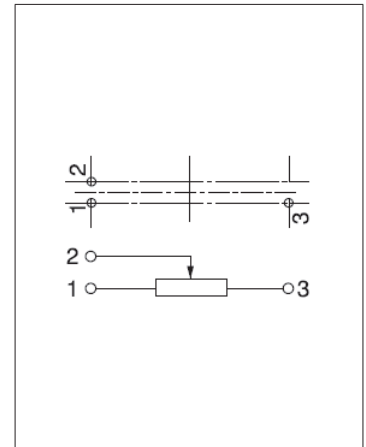
■ Dimensions



■ Mounting Hole Dimensions



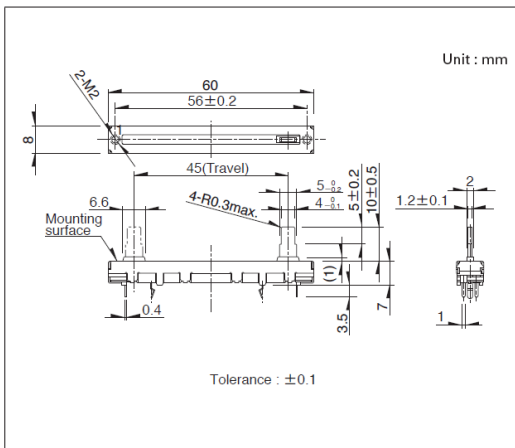
■ Terminal Layout / Circuit Diagram



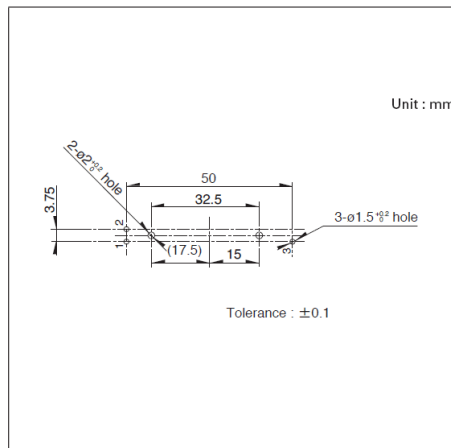
Viewed from mounting side.

Drawing No.8

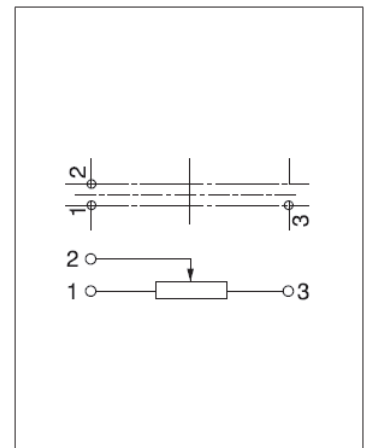
■ Dimensions



■ Mounting Hole Dimensions



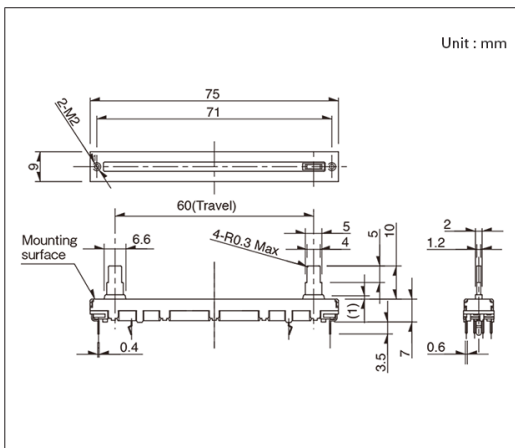
■ Terminal Layout / Circuit Diagram



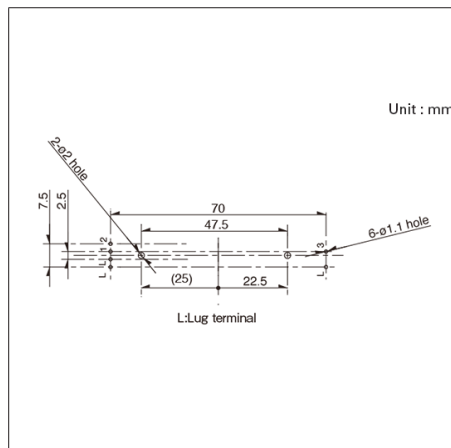
Viewed from mounting side.

Drawing No.9

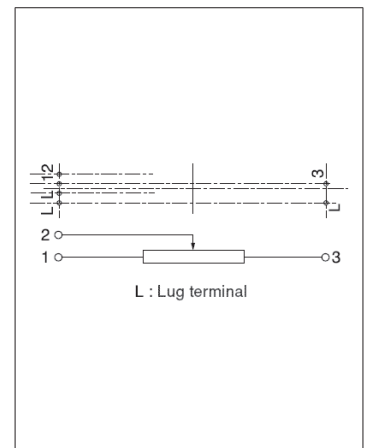
■ Dimensions



■ Mounting Hole Dimensions



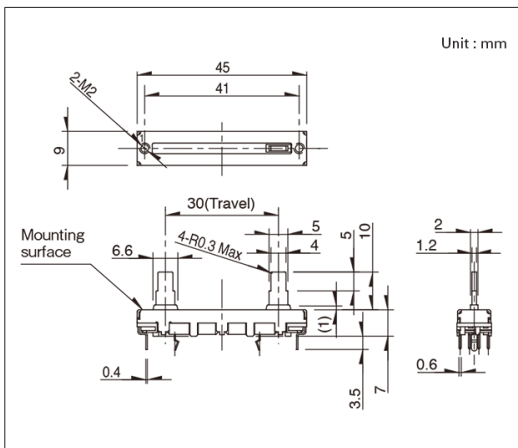
■ Terminal Layout / Circuit Diagram



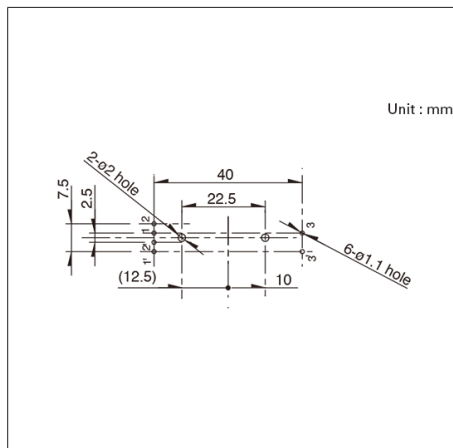
Viewed from mounting side.

Drawing No.10

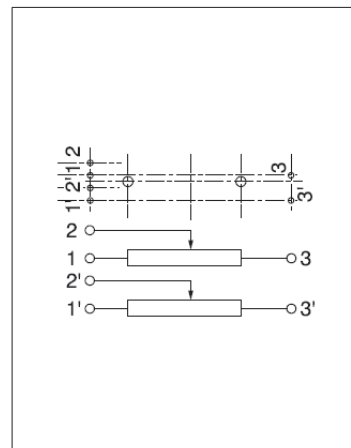
■ Dimensions



■ Mounting Hole Dimensions



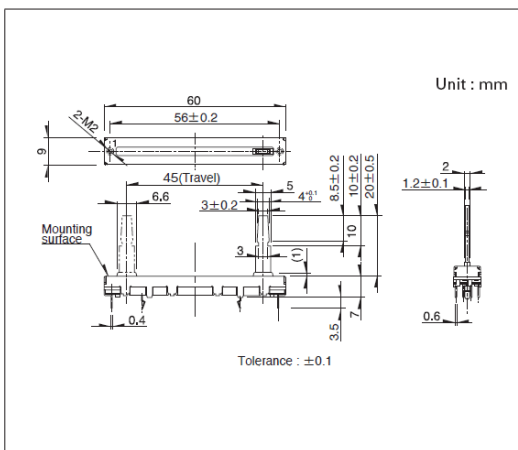
■ Terminal Layout / Circuit Diagram



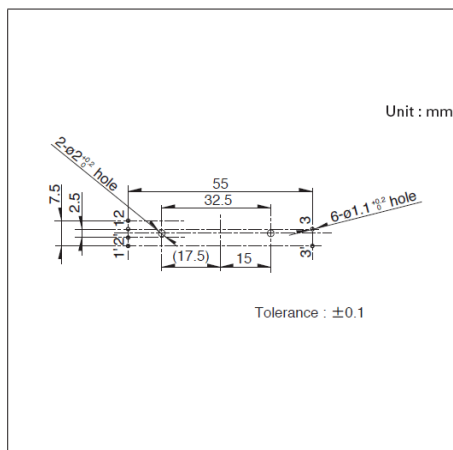
Viewed from mounting side.

Drawing No.11

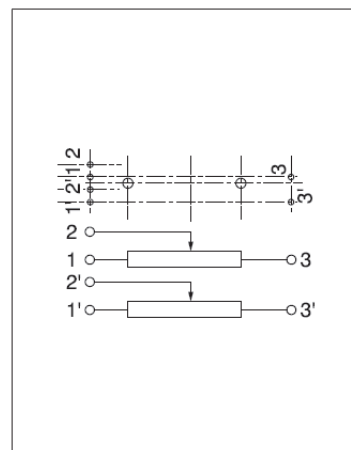
■ Dimensions



■ Mounting Hole Dimensions



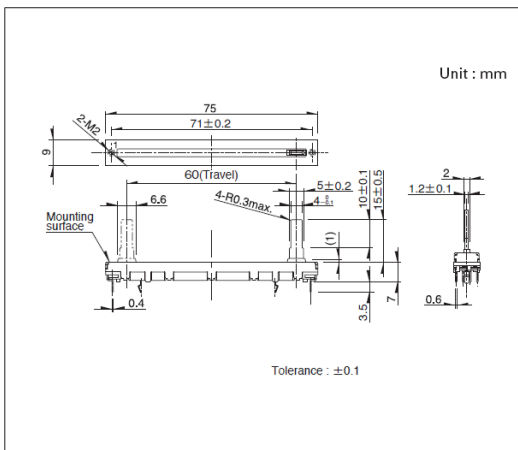
■ Terminal Layout / Circuit Diagram



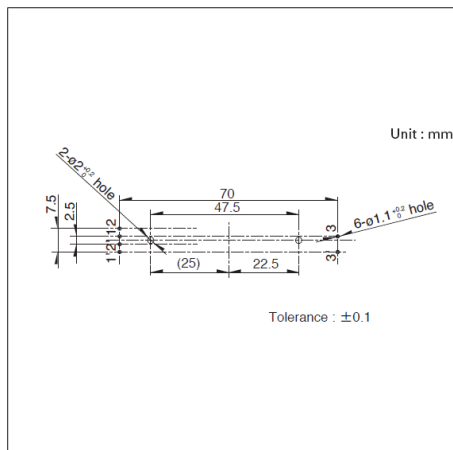
Viewed from mounting side.

Drawing No.12

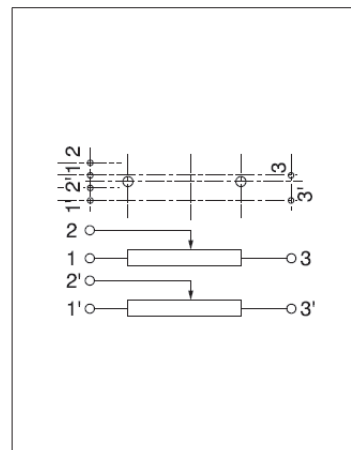
■ Dimensions



■ Mounting Hole Dimensions



■ Terminal Layout / Circuit Diagram



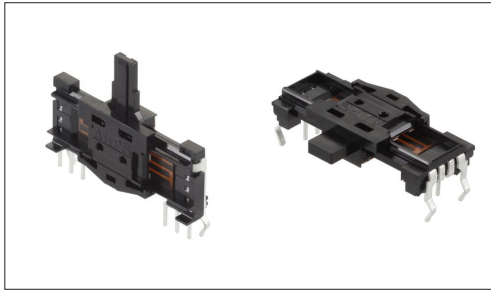
Viewed from mounting side.

Potentiometers

Slide Potentiometer (Standard type)

Slim Slide (Slim 4) RS**H Series

Achieves miniaturization with a total length of travel of +15mm, improving operation feel.



- Total resistance tolerance: $\pm 20\%$
- Operating life: 10,000 cycles
- Operating temperature range: -25°C to $+70^{\circ}\text{C}$

Applications: Home: Major home appliances, Office equipment
Audio_TV: Visual, Audio

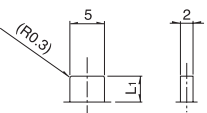
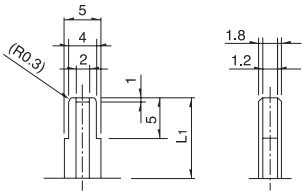
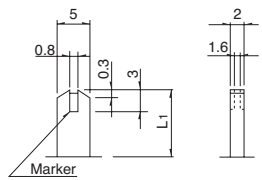
Product List

Products No.	Number of resistor elements	Direction of lever	Travel (mm)	Lever type	Length of lever (mm)	Total resistance	Resistance taper	Detent	Maximum operating voltage	Automotive	Drawing No.
RS15H111CA04	Single-unit	Vertical	15	C	9.5	50k Ω	1B	Without	100V AC, 10V DC	—	1
RS20H111C009	Single-unit	Vertical	20	C	14.5	50k Ω	1B	Without	100V AC, 10V DC	—	2
RS30H111A00D	Single-unit	Vertical	30	A	4.5	10k Ω	15A	Without	150V AC, 10V DC	—	3
RS15H11AA008	Single-unit	Horizontal	15	A	4.5	10k Ω	1B	Without	100V AC, 10V DC	—	4
RS20H11AA015	Single-unit	Horizontal	20	A	4.5	10k Ω	1B	Without	100V AC, 10V DC	—	5
RS30H11AA009	Single-unit	Horizontal	30	A	4.5	10k Ω	1B	Without	200V AC, 10V DC	—	6
RS15H121A009	Dual-unit	Vertical	15	A	4.5	10k Ω	15A	Without	50V AC, 10V DC	—	7
RS20H123A01C	Dual-unit	Vertical	20	A	9.5	100k Ω	1B	Center detent	100V AC, 10V DC	—	8
RS30H121A00B	Dual-unit	Vertical	30	A	4.5	10k Ω	1B	Without	200V AC, 10V DC	—	9
RS15H12AA00F	Dual-unit	Horizontal	15	A	4.5	10k Ω	1B	Without	100V AC, 10V DC	—	10
RS20H12AC002	Dual-unit	Horizontal	20	C	14.5	250k Ω	3B	Without	100V AC, 10V DC	—	11
RS30H12AA003	Dual-unit	Horizontal	30	A	4.5	50k Ω	15A	Without	150V AC, 10V DC	—	12

⚠ Note

1. This catalog shows only outline specifications. When using the products, please obtain formal specifications for supply.
2. Place your purchase order in N minimum package units (N: integer).
3. Products other than those listed in above products are also available. Please contact us for details.
4. Please read "Lever Types" for the kinds and code of lever type.

Lever Types

Configuration code	A		C		D	
Dimensions						
Length L ₁	4.5	9.5	9.5	14.5	9.5	14.5

Potentiometers Slide Potentiometer (Standard type)

Slim Slide (Slim 4)
RS**H Series

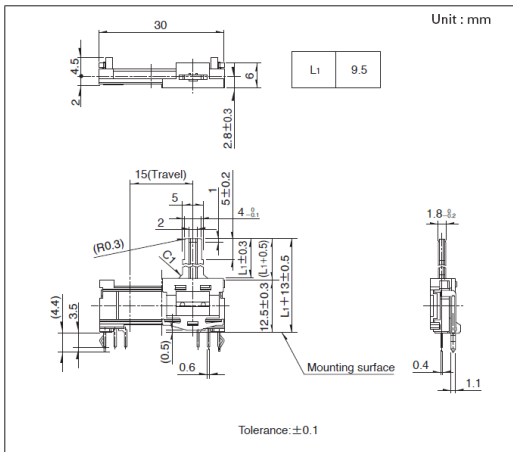
■ Packing Specifications

Tray

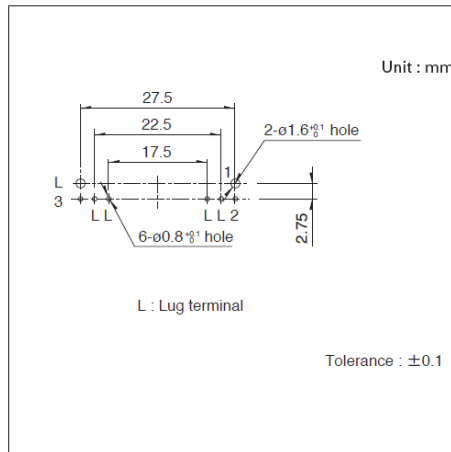
Products No.	Number of packages (pcs.)		Export package measurements (mm)
	1 case / Japan	1 case / export packing	
RS15H111CA04 RS15H121A009	2,900	5,800	514 x 378 x 512
RS20H111C009 RS20H123A01C	2,500	5,000	514 x 378 x 512
RS30H111A00D RS30H121A00B	2,000	4,000	514 x 378 x 512
RS15H11AA008 RS20H11AA015 RS15H12AA00F RS20H12AC002	2,750	5,500	508 x 374 x 408
RS30H11AA009 RS30H12AA003	1,980	3,960	508 x 374 x 408

Drawing No.1

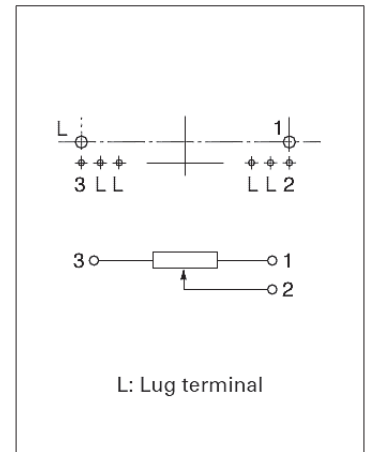
■ Dimensions



■ Mounting Hole Dimensions



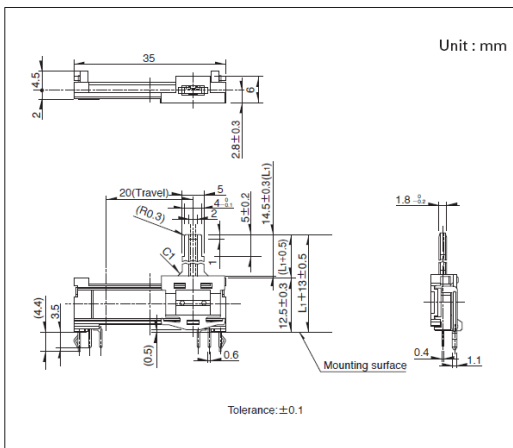
■ Terminal Layout / Circuit Diagram



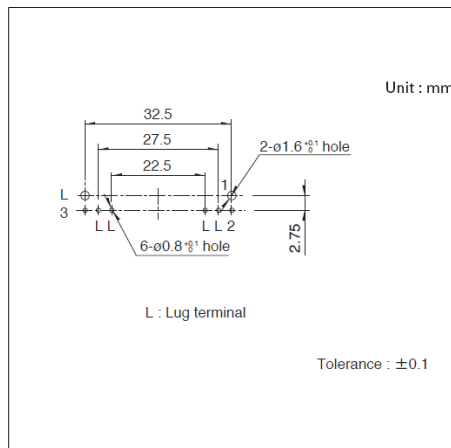
Viewed from mounting side.

Drawing No.2

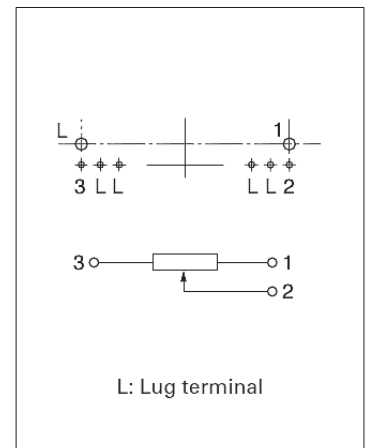
■ Dimensions



■ Mounting Hole Dimensions



■ Terminal Layout / Circuit Diagram



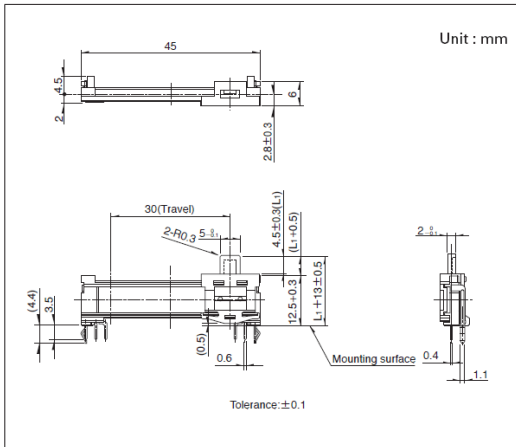
Viewed from mounting side.

Potentiometers Slide Potentiometer (Standard type)

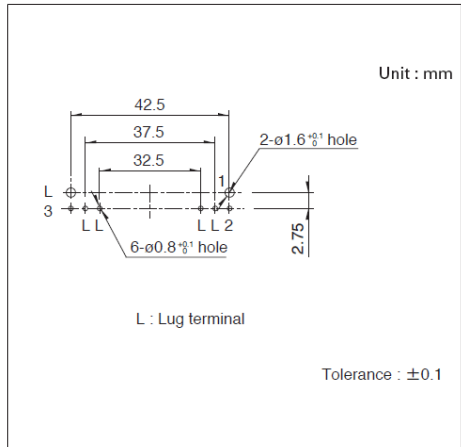
Slim Slide (Slim 4)
RS**H Series

Drawing No.3

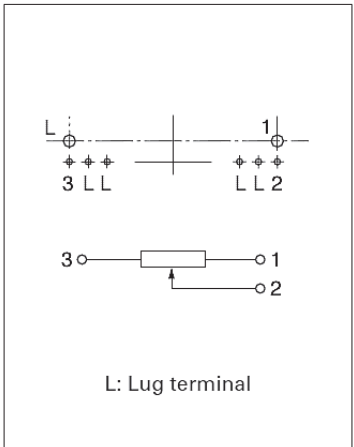
■ Dimensions



■ Mounting Hole Dimensions



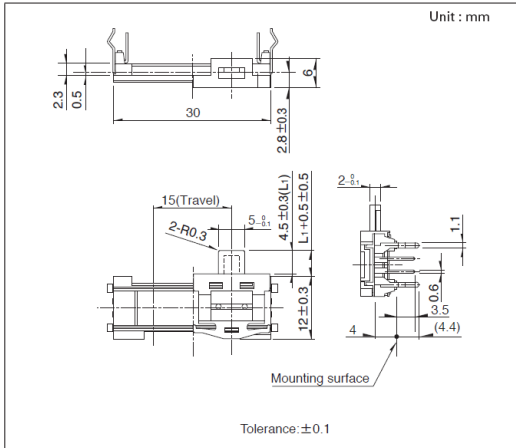
■ Terminal Layout / Circuit Diagram



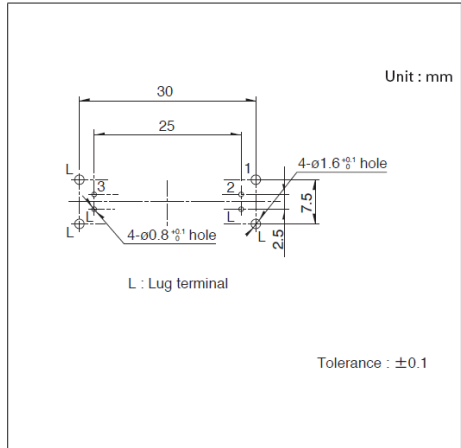
Viewed from mounting side.

Drawing No.4

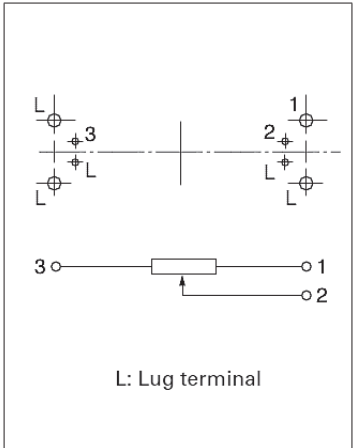
■ Dimensions



■ Mounting Hole Dimensions



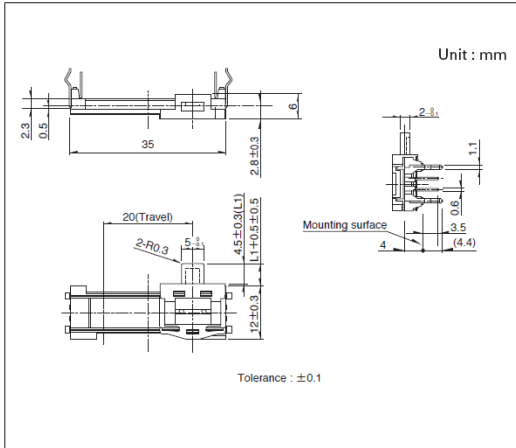
■ Terminal Layout / Circuit Diagram



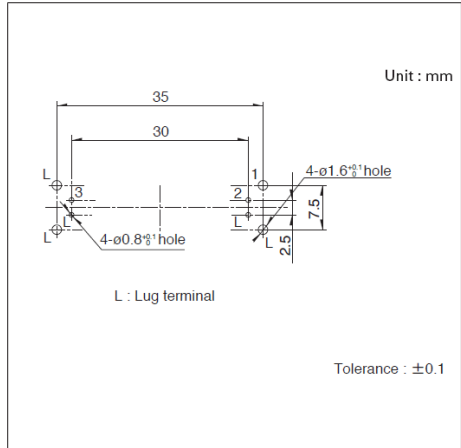
Viewed from mounting side.

Drawing No.5

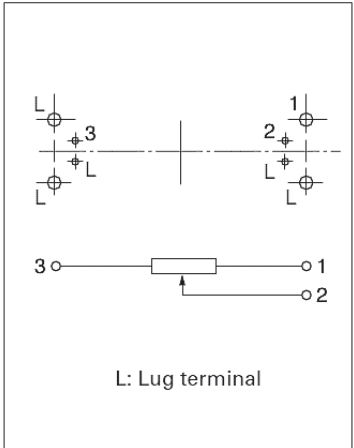
■ Dimensions



■ Mounting Hole Dimensions



■ Terminal Layout / Circuit Diagram



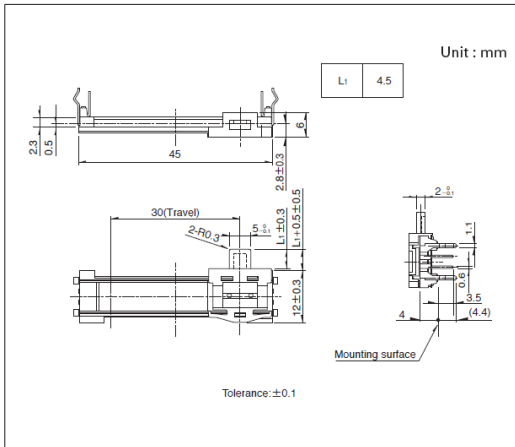
Viewed from mounting side.

Potentiometers Slide Potentiometer (Standard type)

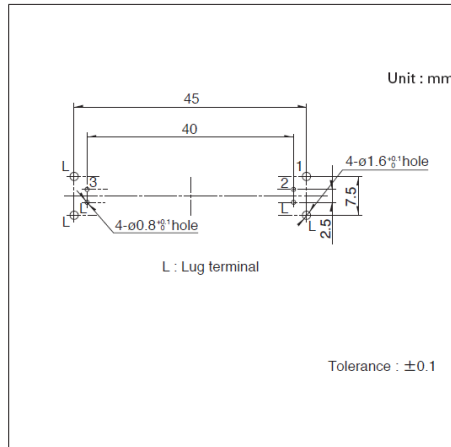
Slim Slide (Slim 4)
RS**H Series

Drawing No.6

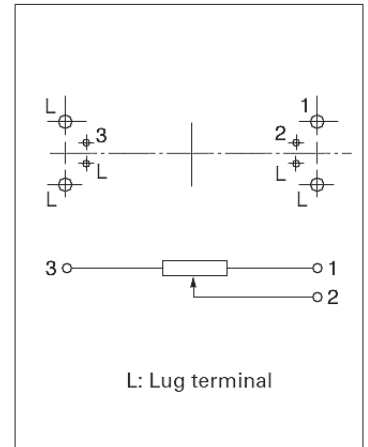
■ Dimensions



■ Mounting Hole Dimensions



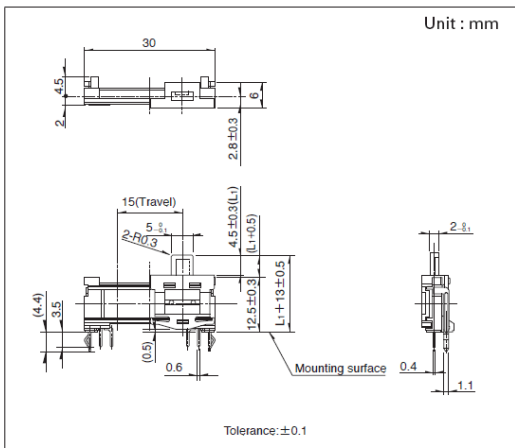
■ Terminal Layout / Circuit Diagram



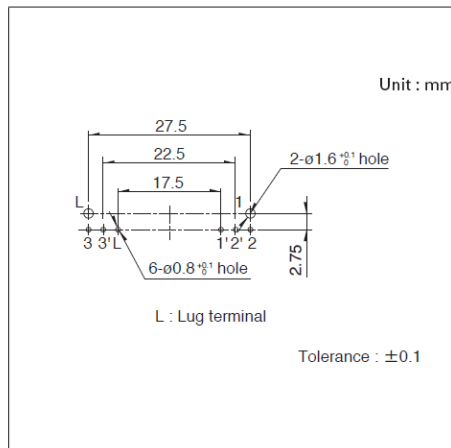
Viewed from mounting side.

Drawing No.7

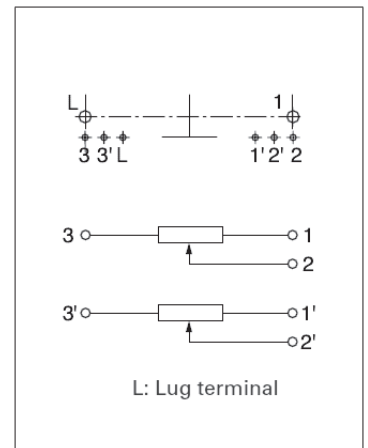
■ Dimensions



■ Mounting Hole Dimensions



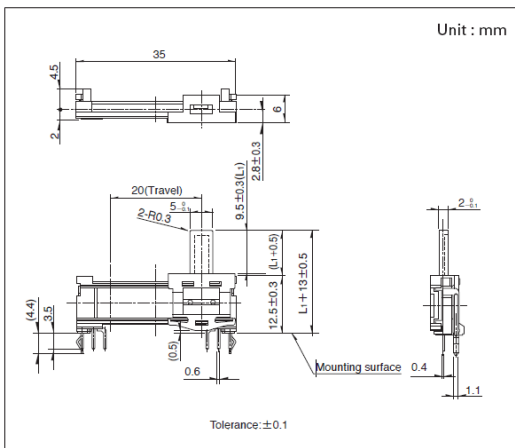
■ Terminal Layout / Circuit Diagram



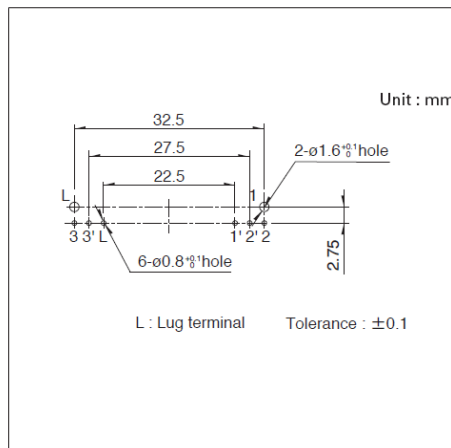
Viewed from mounting side.

Drawing No.8

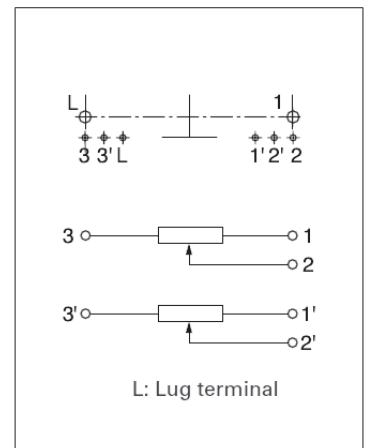
■ Dimensions



■ Mounting Hole Dimensions



■ Terminal Layout / Circuit Diagram

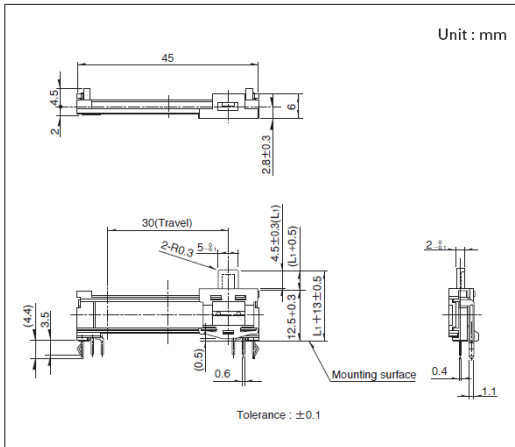


Viewed from mounting side.

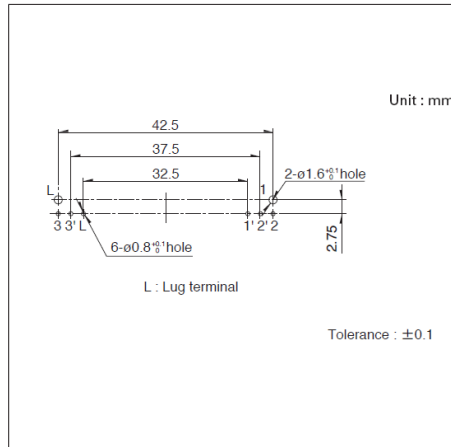
Slim Slide (Slim 4)
RS**H Series

Drawing No.9

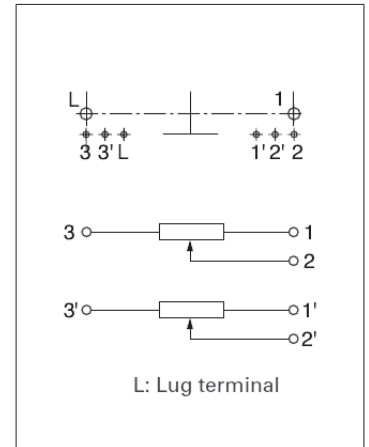
■ Dimensions



■ Mounting Hole Dimensions



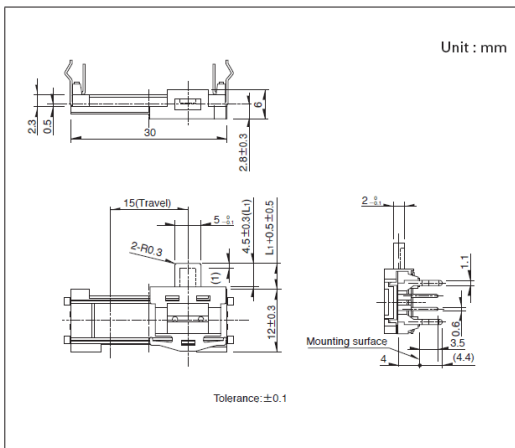
■ Terminal Layout / Circuit Diagram



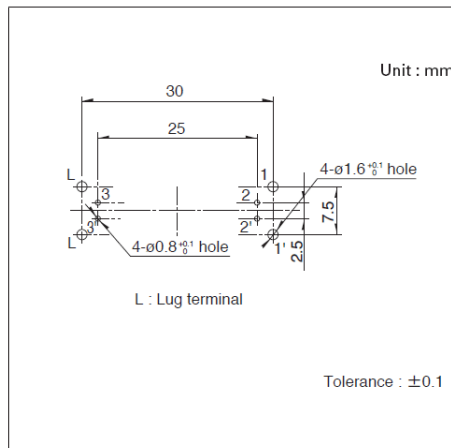
Viewed from mounting side.

Drawing No.10

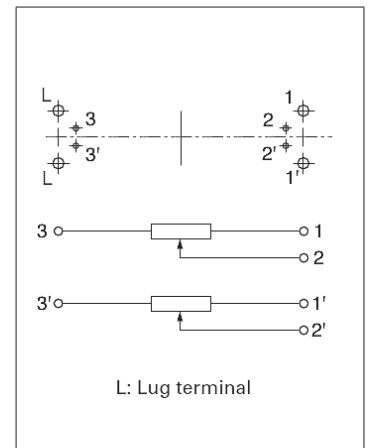
■ Dimensions



■ Mounting Hole Dimensions



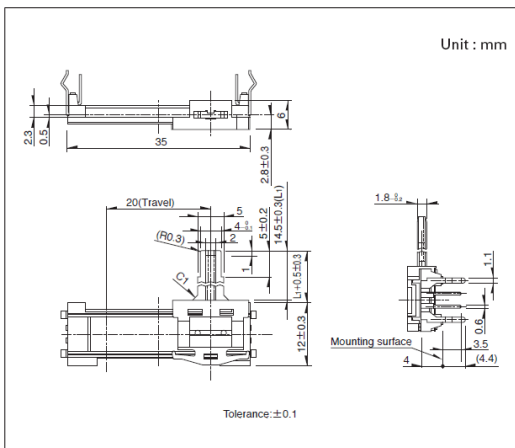
■ Terminal Layout / Circuit Diagram



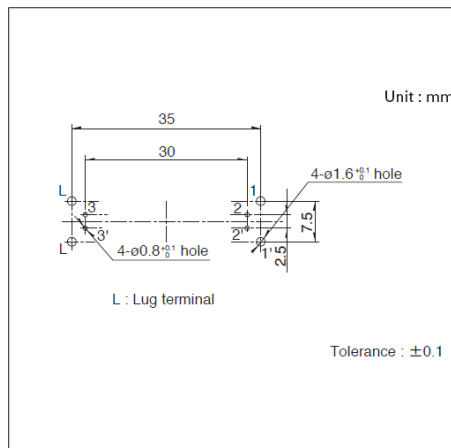
Viewed from mounting side.

Drawing No.11

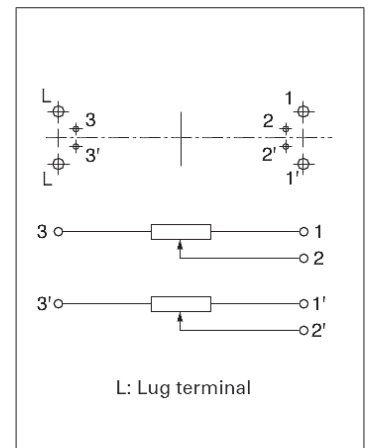
■ Dimensions



■ Mounting Hole Dimensions



■ Terminal Layout / Circuit Diagram

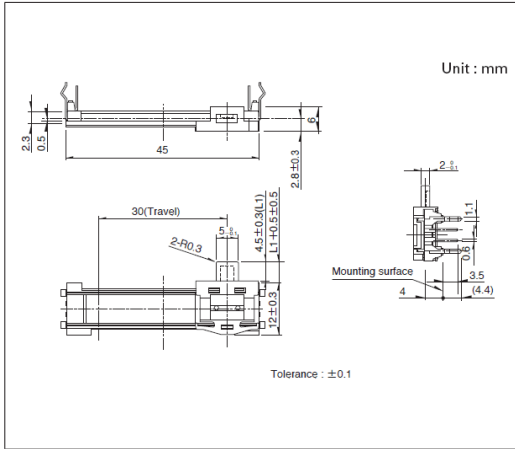


Viewed from mounting side.

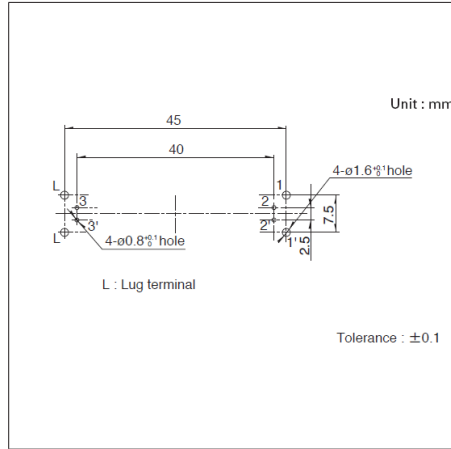
Slim Slide (Slim 4)
RS**H Series

Drawing No.12

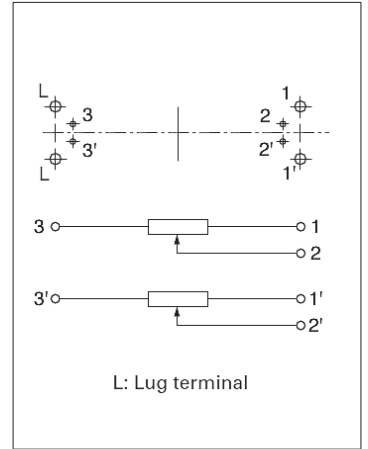
■ Dimensions



■ Mounting Hole Dimensions






■ Terminal Layout / Circuit Diagram



Viewed from mounting side.

Slide Potentiometer (Master type)

List of Varieties

Series		RS**N	RS6011*P	RSA0V11M
Photo				
Direction of lever	Horizontal	—	—	—
	Vertical	●	●	●
Number of resistor elements		Dual-unit Single-unit		Single-unit
Travel (mm)		60 100	60	100
Lever type		9-T (T-Bar)	6	—
Length of lever (mm)		8.2	15	10.95
Operating temperature range		-10°C to +60°C		
Operating life (cycles)		30,000		100,000
Electrical performance	Total resistance	10kΩ	10kΩ 20kΩ	10kΩ
	Resistance taper	15A	1B 15A	1B
	Total resistance tolerance	±20%		
	Rated power	0.1W 0.25W	0.1W 0.2W	0.5W
	Maximum operating voltage	150V AC 350V AC	150V AC, 10V DC 200V AC, 10V DC	500V AC, 10V DC
	Insulation resistance	100MΩ min. 250V DC		
	Voltage proof	250V AC for 1 minute		
Mechanical performance	Operating force	0.3(+0.5, -0.25)N 0.4(+0.5, -0.35)N	0.5(+1.0, -0.4)N	—
	Stopper strength	100N		10N
	Lever push-pull strength	50N		20N
	Lever wobble (Both side)	1.312mm	2.4mm	1.752mm
	Lever deviation (One side)	0.5mm max.		
Automotive		—	—	—

⚠ Note

● Indicates applicability to all products in the series, while ○ indicates applicability to some products in the series.

Potentiometers Slide Potentiometer (Master type)

Low-profile Master Type (N Fader)

RS**N Series

Thin-profile type with excellent operability, contributing to set design flexibility.



- Total resistance tolerance: $\pm 20\%$
- Operating life: 30,000 cycles
- Operating temperature range: -10°C to $+60^{\circ}\text{C}$

Applications: Audio_TV:Pro audio

Product List

Products No.	Number of resistor elements	Direction of lever	Travel (mm)	Lever type	Length of lever (mm)	Total resistance	Resistance taper	Terminal style	Maximum operating voltage	Automotive	Drawing No.
RS60N111900H	Single-unit	Vertical	60	9-T (T-Bar)	8.2	10k Ω	15A	For PC board	150V AC	—	1
RSA0N111900Q	Single-unit	Vertical	100	9-T (T-Bar)	8.2	10k Ω	15A	For PC board	350V AC	—	2
RS60N1219A04	Dual-unit	Vertical	60	9-T (T-Bar)	8.2	10k Ω	15A	For PC board	150V AC	—	3
RSA0N1219A03	Dual-unit	Vertical	100	9-T (T-Bar)	8.2	10k Ω	15A	For PC board	350V AC	—	4

Note

1. This catalog shows only outline specifications. When using the products, please obtain formal specifications for supply.
2. Place your purchase order in N minimum package units (N: integer).
3. Products other than those listed in above products are also available. Please contact us for details.
4. Please read "Lever Types" for the kinds and code of lever type.

Lever Types

Configuration code	1	4	9-T (T-Bar)
Dimensions			

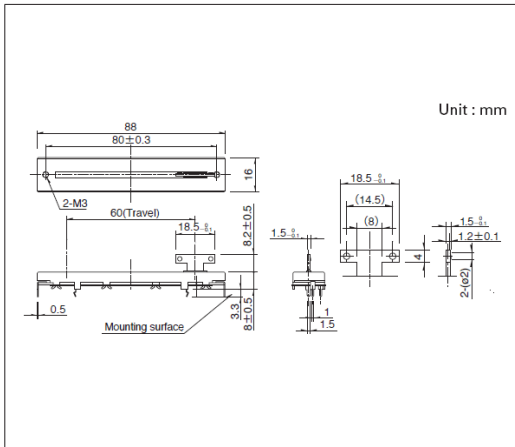
Packing Specifications

Tray

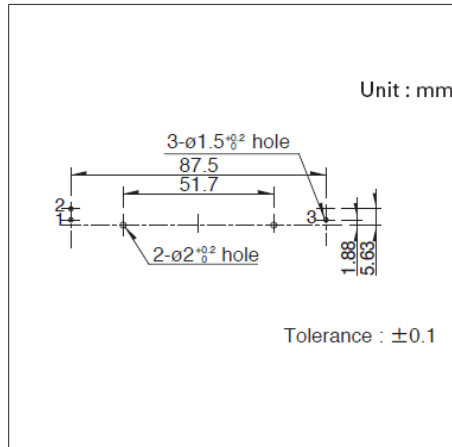
Products No.	Number of packages (pcs.)		Export package measurements (mm)
	1 case / Japan	1 case / export packing	
RS60N111900H RS60N1219A04	300	600	517 x 377 x 371
RSA0N111900Q RSA0N1219A03	200	400	517 x 377 x 371

Drawing No.1

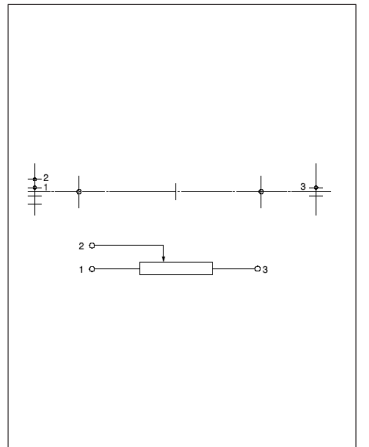
■ Dimensions



■ Mounting Hole Dimensions



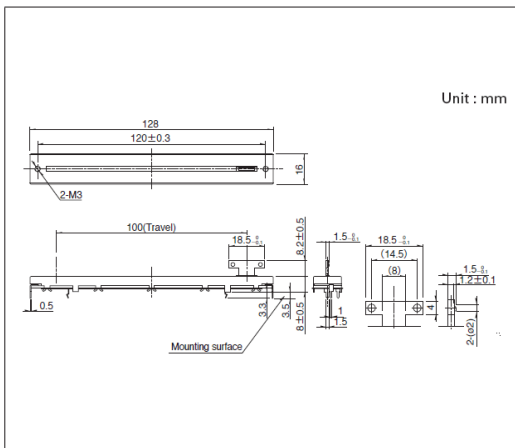
■ Terminal Layout / Circuit Diagram



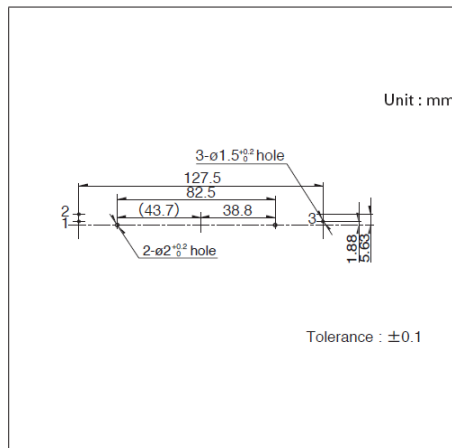
Viewed from mounting side.

Drawing No.2

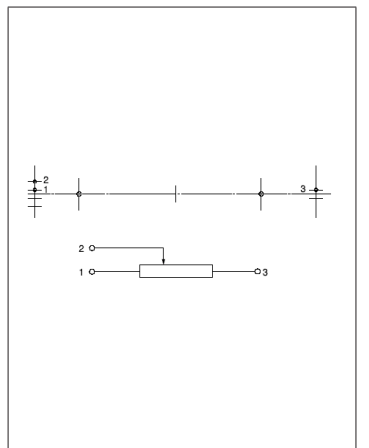
■ Dimensions



■ Mounting Hole Dimensions



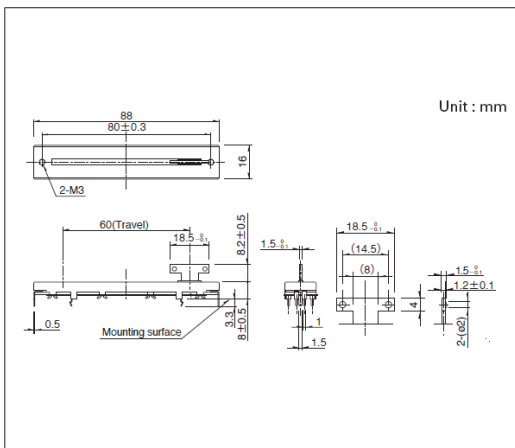
■ Terminal Layout / Circuit Diagram



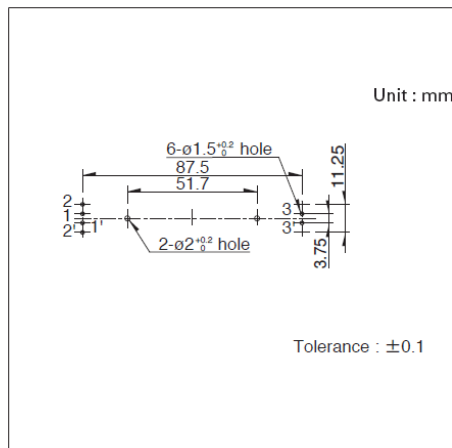
Viewed from mounting side.

Drawing No.3

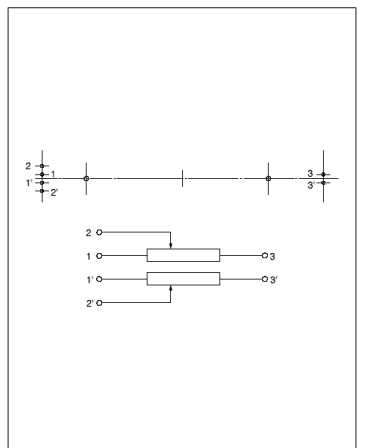
■ Dimensions



■ Mounting Hole Dimensions



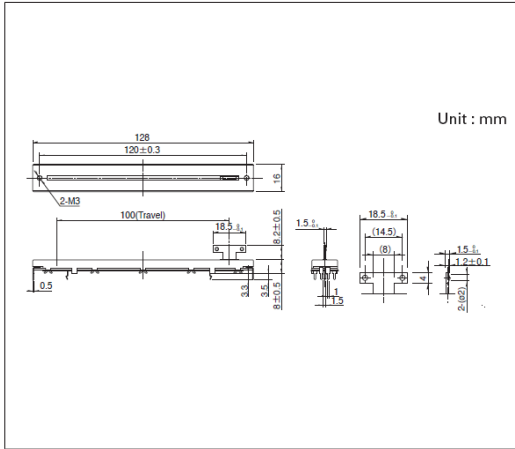
■ Terminal Layout / Circuit Diagram



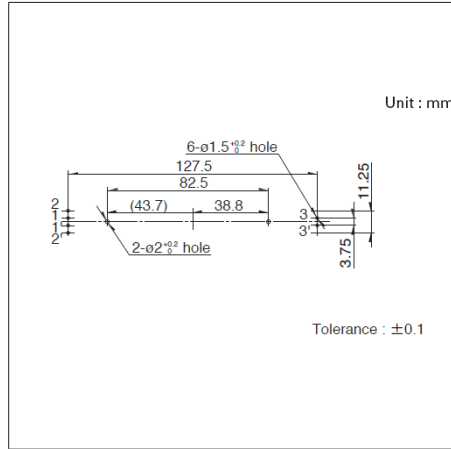
Viewed from mounting side.

Drawing No.4

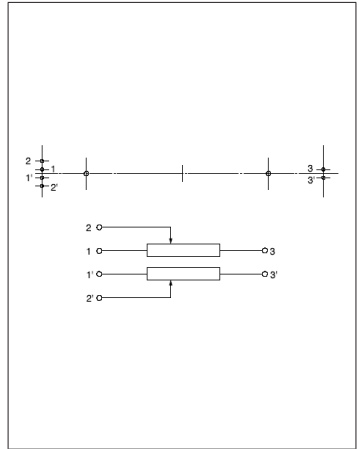
■ Dimensions



■ Mounting Hole Dimensions



■ Terminal Layout / Circuit Diagram



Viewed from mounting side.

Potentiometers

Slide Potentiometer (Master type)

Low-profile Master Type (Super P Fader)

RS6011*P Series

Compact design with excellent operation feel, ideal for mixer faders.



- Total resistance tolerance: $\pm 20\%$
- Operating life: 30,000 cycles
- Operating temperature range: -10°C to $+60^{\circ}\text{C}$

Applications: Audio_TV:Pro audio

Product List

Products No.	Number of resistor elements	Direction of lever	Travel (mm)	Lever type	Length of lever (mm)	Total resistance	Resistance taper	Maximum operating voltage	Automotive	Drawing No.
RS6011SP6003	Single-unit	Vertical	60	6	15	10k Ω	1B	200V AC, 10V DC	—	1
RS6011SP6004	Single-unit	Vertical	60	6	15	20k Ω	15A	200V AC, 10V DC	—	
RS6011DP6002	Dual-unit	Vertical	60	6	15	10k Ω	15A	150V AC, 10V DC	—	2
RS6011DP6003	Dual-unit	Vertical	60	6	15	20k Ω	15A	150V AC, 10V DC	—	

Note

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2. Place your purchase order in N minimum package units (N: integer).
3. Products other than those listed in above products are also available. Please contact us for details.
4. Please read "Lever Types" for the kinds and code of lever type.

Lever Types

Configuration code	Unit:mm		
	9-1 (Metal lever)	6 (Metal lever)	4 (Metal lever)
Dimensions			
Length L ₁	10	15	15 20

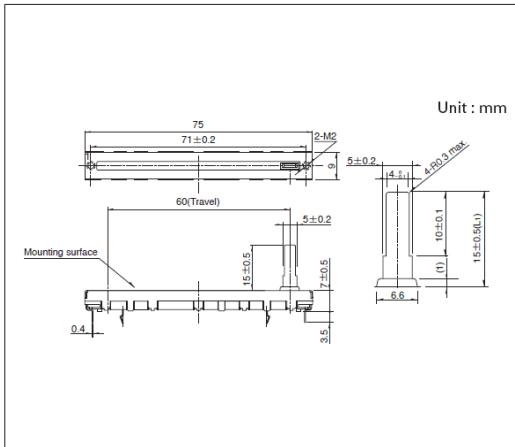
Packing Specifications

Tray

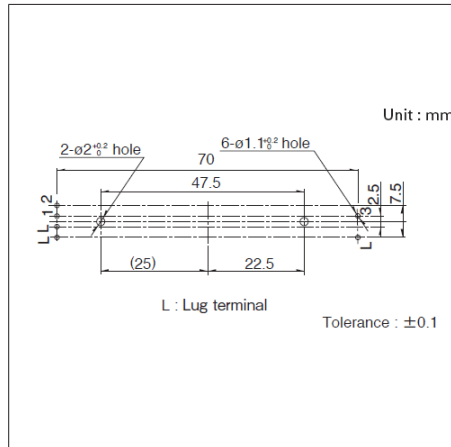
Number of packages (pcs.)		Export package measurements (mm)
1 case / Japan	1 case / export packing	
900	900	529 x 373 x 273

Drawing No.1

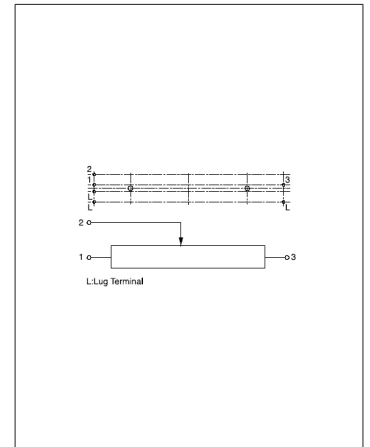
■ Dimensions



■ Mounting Hole Dimensions



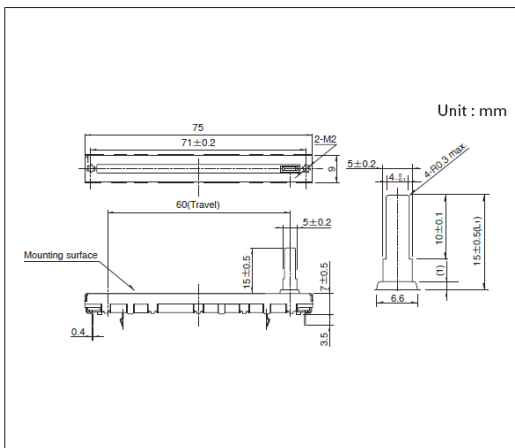
■ Terminal Layout / Circuit Diagram



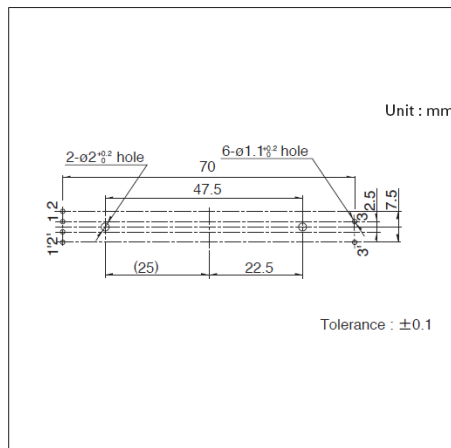
1. Viewed from mounting side.
2. Lug terminals for terminals '1' '2' '3'.

Drawing No.2

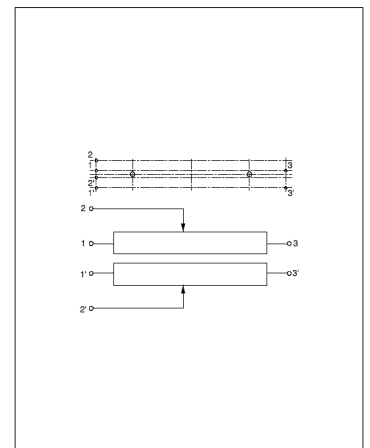
■ Dimensions



■ Mounting Hole Dimensions



■ Terminal Layout / Circuit Diagram



Viewed from mounting side.

Potentiometers Slide Potentiometer (Master type)

Motor-driven Master Type (Motor V Fader)
RSAOV11M Series

Delivers excellent operation feel and high-speed tracking during motor-driven operation.



- Total resistance tolerance: ±20%
- Operating life: 100,000 cycles
- Operating temperature range: -10°C to +60°C

Applications: Audio_TV:Pro audio

■ Product List

Products No.	Number of resistor elements	Direction of lever	Travel (mm)	Length of lever (mm)	Total resistance	Resistance taper	Terminal style	Maximum operating voltage	Automotive	Drawing No.
RSAOV11M9002	Single-unit	Vertical	100	10.95	10kΩ	1B	Connector	500V AC, 10V DC	—	1

⚠ Note

1. This catalog shows only outline specifications. When using the products, please obtain formal specifications for supply.
2. Please place purchase orders per minimum order unit (integer).

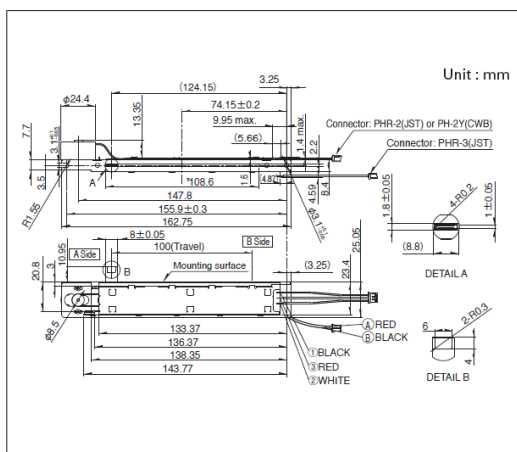
■ Packing Specifications

Tray

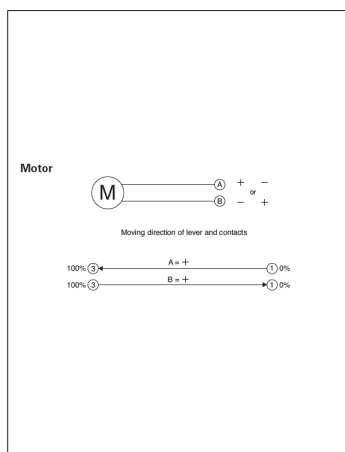
Number of packages (pcs.)		Export package measurements (mm)
1 case / Japan	1 case / export packing	
80	80	540 x 360 x 205

Drawing No.1

■ Dimensions



■ Circuit Diagram



Slide Potentiometers / Soldering Conditions

■ Reference for Manual Soldering

Series	Tip temperature	Duration of Soldering time	No. of solders
RS□□1, RS□□H, RS□□N, RS6011□P	350°C max.	3s max.	1 time

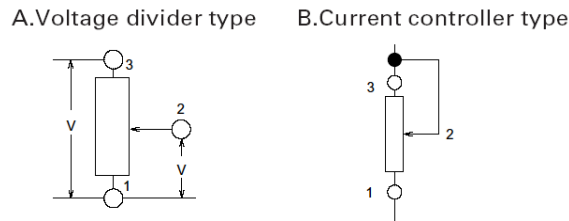
■ Reference for Dip Soldering

Series	Preheating		Dip soldering		Number of soldering
	Soldering surface temperature	Heating time	Soldering temperature	Soldering time	
RS□□1, RS□□H, RS□□N, RS6011□P	100°C max.	1 min. max.	260°C	5s max.	1 time

Potentiometers / Cautions

Recommended Circuit Configuration

Please use the potentiometer in the voltage adjustment circuit (Fig. A). Avoid using it in the current adjustment circuit (Fig. B) as it is affected by the contact resistance between the resistive element and the wiper.



Direct Voltage

When direct voltage is flown through this part, terminal to terminal insulation may deteriorate depending on the use environment. This is due to a migration phenomenon. Contact us if you are planning to use this part under direct voltage.

Impedance on the Output Side

There is a possibility that might be affected by contact resistance of resistive element and wiper in case of low impedance of output side in voltage regulation circuit. For this reason, we require that you adjust to impedance of output side more than 100 times of total resistance.

Residual Resistance

Although electric poles of resistors are generally formed by silver printing, we provide carbon coating over the silver poles to enhance reliability against sulfurization. Contact us if you wish to use the part in a low residual resistance state.

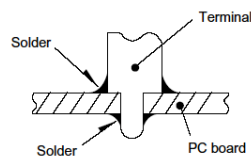
Dew Condensation

Avoid using the potentiometer where dew or water drops might occur on the surface of the resistor, etc. Deterioration of insulation or shorting may occur.

Soldering

To avoid potential contact issues, please do not solder wires to the top surface of the printed circuit board as shown in the diagram.

Solder all metal lugs into a substrate before use.



Stress Being Applied to the Terminals

Always pay special attention not to apply excessive stress when handling the terminals. Also, be sure to design appropriate soldering conditions.

Looseness of the Shaft

When lengthy shaft lengths are being employed, the looseness (deviation) tends to grow in proportion to the shaft length. Conducting a test under actual operating conditions is recommended.

Potentiometers / Cautions

Chassis Mounting

The use of a nut to fasten this part may lead to excessive tightening and can deteriorate the rotary contact performance, or strip the threads. Handle with care when tightening the nut.

Use of Chemicals

Since synthetic resins such as polycarbonate are being used as the material for the insulated type shafts, avoid using this part under gassy environments of such chemicals as ammonia, amines, alkali water solutions, aromatic hydrocarbons, ketones, esters and halogenated hydrocarbons, especially, under their intensive gas environments.

Operation at Low Temperature

When these products are expected to be used under low temperature environments such as applications for car radios and car stereos, we can customize them for easier and more smooth rotary movements. When placing orders, indicate whether the low temperature specification is necessary or not.

Storage

1. Store the products as delivered, at a normal temperature and humidity, without direct sunshine and corrosive gas ambient. Use them at an earliest possible timing, not later than six months upon receipt.
2. After breaking the seal, keep the products in a plastic bag to shut out ambient air, store them in the same environment as above, and use them up as soon as possible.
3. Do not stack too many switches.

The above operation notes are quoted from the "Precaution and Guideline of Potentiometer for Electrical Devices", which is a technical report issued by the Japan Electronics and Information Technology Industries Association RCR-2191A (in March 2002).

For details, see the above technical report.