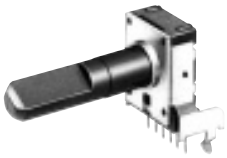
12 mm Square Two-in-One Rotary Potentiometers (Dual Type)

Type: **EVJC/EVJY**

Japan
Malaysia



■ Features

- Rectangular-shaped, automatic mounting type
- High tactile feedback
- Available for automatic dip soldering (Flux-proof structure)
- Highly reliable and dust-proof

■ Recommended Applications

- Audio Equipment
- Video Equipment
- Electronic Musical Instruments

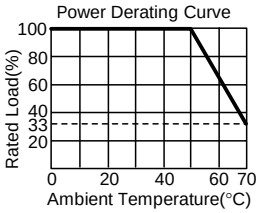
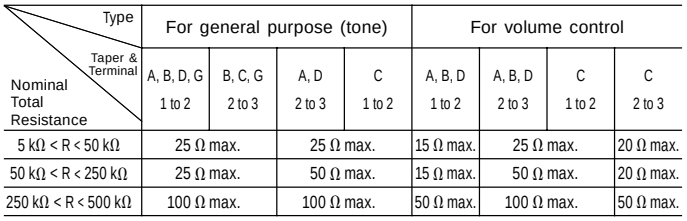
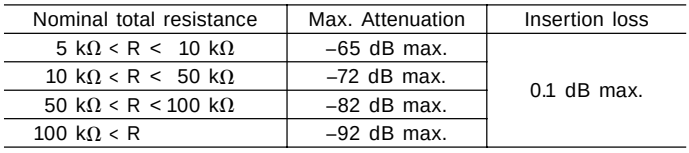
■ Explanation of Part Numbers

1	2	3	4	5	6	7	8	9	10	11	12
E	V	J	C/Y								
Product Code			Specifications			Shaft Trims & Dimensions			Taper & Resistance		

■ Product Chart

Installation direction	Style	Height (H=mm)	Applications	Detent	Type
Horizontal	Without bushing	10.0	Volume control	Without detent	EVJC00
			Tone control	Without detent	EVJC30
				Midpoint	EVJC31
		12.5	Volume control	Without detent	EVJC90
			Tone control	Without detent	EVJC40
				Midpoint	EVJC41
	With bushing	10.0	Volume control	Without detent	EVJC20
			Tone control	Without detent	EVJC50
				Midpoint	EVJC51
		12.5	Volume control	Without detent	EVJCB0
			Tone control	Without detent	EVJCH0
				Midpoint	EVJCH1
	With sleeve	10.0	Volume control	Without detent	EVJC25
			Tone control	Without detent	EVJC55
				Midpoint	EVJC56
		12.5	Volume control	Without detent	EVJCB5
			Tone control	Without detent	EVJCH5
				Midpoint	EVJCH6
Vertical	Without bushing	—	Volume control	Without detent	EVJY00
			Tone control	Without detent	EVJY80
				Midpoint	EVJY81
	With bushing	—	Volume control	Without detent	EVJY10
			Tone control	Without detent	EVJY90
				Midpoint	EVJY91
	With sleeve	—	Volume control	Without detent	EVJY15
			Tone control	Without detent	EVJY95
				Midpoint	EVJY96

■ Specifications

Classification	Item		
Applications	12 mm square Two-in-One		
Mechanical Specifications	Rotation Angle	300 °	
	Rotation Torque	2 mN·m to 20 mN·m	
	Shaft Stopper Strength	0.5 N·m min.	
	Shaft Pull/Push Strength	80 N min.	
	Shaft Inclination (Measured at the top of the shaft)	0.35 mm max.	
	Bushing-Nut Tightening Torque	1 N·m max.	
Electrical Specifications	Nominal Total Resistance	5 kΩ to 500 kΩ (Tolerance ±20 %)	
	Taper	A, B, C, D, G, BH	
	Power Rating	0.05 W (0 °C to 50 °C) For potentiometers operating in ambient temperatures above 50 °C, Rating should be derated in accordance with the figure on the right.	
	Residual Resistance		
	Maximum Attenuation (for volume control, taper A, B, D)		
	Tracking	For volume control within ±3 dB at –40 to 0 dB For Tone control within ±3 dB at midpoint	
	Insulation Resistance	100 MΩ min. at 250 Vdc	
	Dielectric Withstand Voltage	300 Vac for 1 minute	
	Noise Level	47 mV max. Apply 20 V (When Voltage Rating < 20 V, use the rated voltage.) Rotate shaft at 30 r/min.	
Endurance	Operating Life ✻1	15000 cycles min.	
Minimum Quantity/Packing Unit ✻2		80 pcs. (Tray Pack)	L≦20.0 mm
		60 pcs. (Tray Pack)	L>20.0 mm
Packing Unit ✻2		800 pcs.	L≦20.0 mm
		600 pcs.	L>20.0 mm

Type / Taper & Terminal / Nominal Total Resistance	For general purpose (tone)				For volume control			
	A, B, D, G 1 to 2	B, C, G 2 to 3	A, D 2 to 3	C 1 to 2	A, B, D 1 to 2	A, B, D 2 to 3	C 1 to 2	C 2 to 3
5 kΩ < R < 50 kΩ	25 Ω max.		25 Ω max.		15 Ω max.	25 Ω max.		20 Ω max.
50 kΩ < R < 250 kΩ	25 Ω max.		50 Ω max.		15 Ω max.	50 Ω max.		20 Ω max.
250 kΩ < R < 500 kΩ	100 Ω max.		100 Ω max.		50 Ω max.	100 Ω max.		50 Ω max.

Nominal total resistance	Max. Attenuation	Insertion loss
5 kΩ < R < 10 kΩ	–65 dB max.	0.1 dB max.
10 kΩ < R < 50 kΩ	–72 dB max.	
50 kΩ < R < 100 kΩ	–82 dB max.	
100 kΩ < R	–92 dB max.	

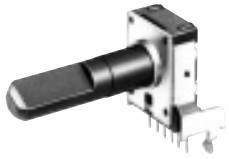
✻1 : No direct current should be applied.
✻2 : With bushing : L=L+7.5 mm

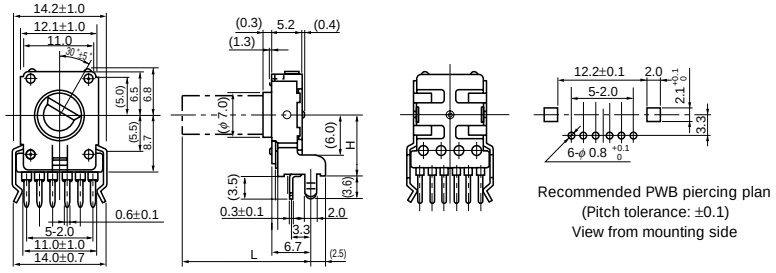
■ Dimensions in mm (not to scale)

for Volume : EVJC00, EVJC90
for Tone : EVJC30, EVJC40 (without detent)

● Horizontal, without Bushing ..... EVJC31, EVJC41 (with detent)

No. 1

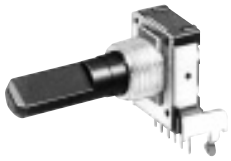


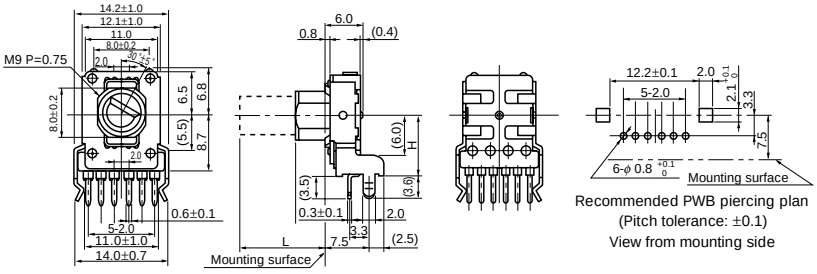


for Volume : EVJC20, EVJCB0
for Tone : EVJC50, EVJCH0 (without detent)

● Horizontal, with Bushing ..... EVJC51, EVJCH1 (with detent)

No. 2

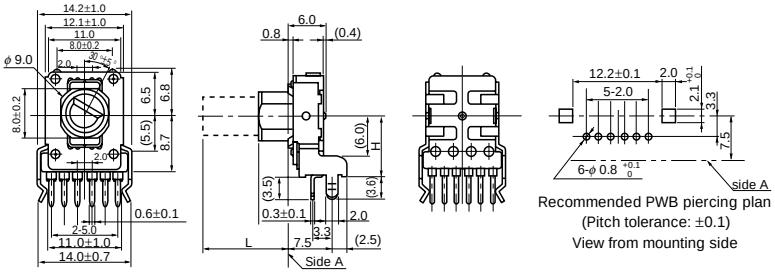




for Volume : EVJC25, EVJCB5
for Tone : EVJC55, EVJCH5 (without detent)

● Horizontal, with Sleeve ..... EVJC56, EVJCH6 (with detent)

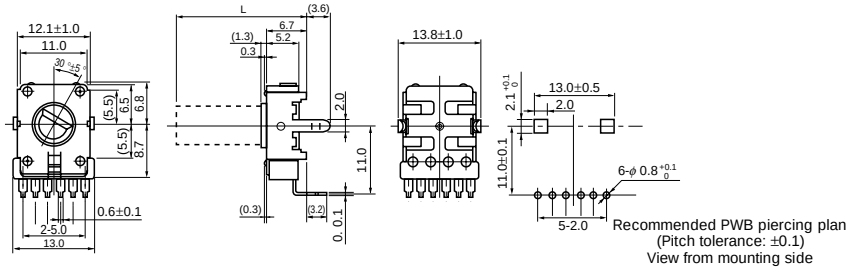
No. 3



for Volume : EVJY00
for Tone : EVJY80 (without detent)

● Vertical, without Bushing ..... EVJY81 (with detent)

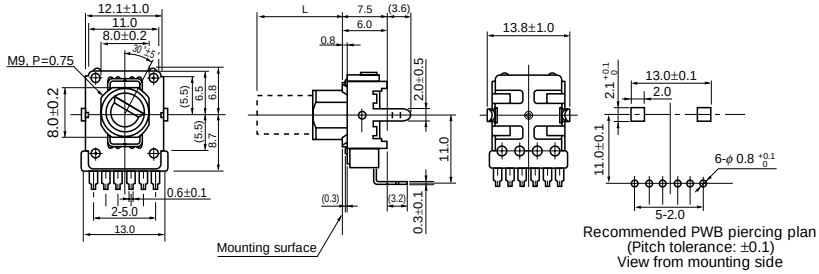
No. 4



for Volume : EVJY10
for Tone : EVJY90 (without detent)

● Vertical, with Bushing ..... EVJY91 (with detent)

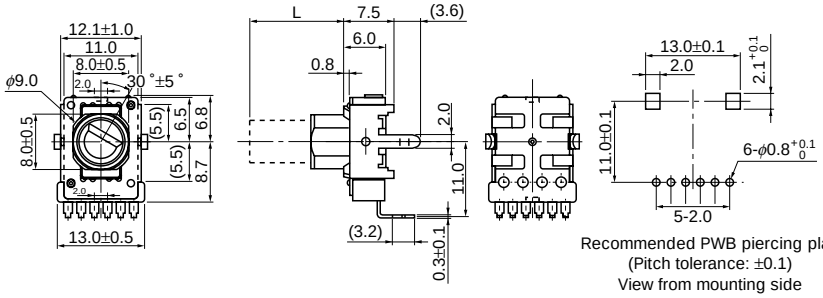
No. 5



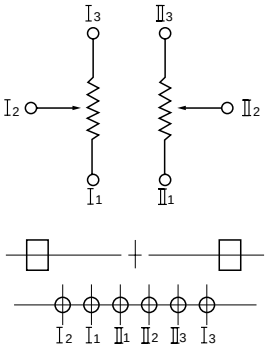
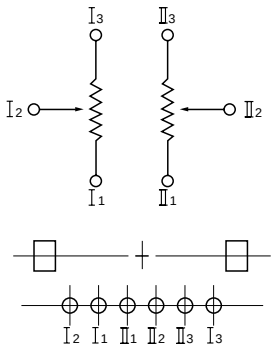
for Volume : EVJY15
for Tone : EVJY95 (without detent)

● Vertical, with Sleeve ..... EVJY96 (with detent)

No. 6

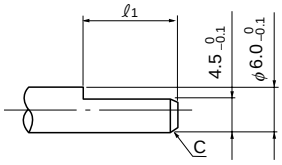
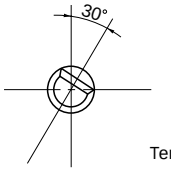


■ Circuit Diagram and PWB Piercing Plan

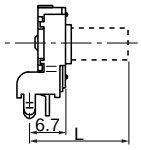
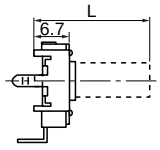
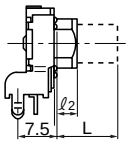
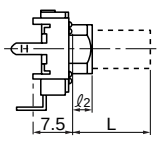
	Volume control without tap	With tap	Tone control
Relation of mounting holes and terminals		———	

Notes:
1. I=Resistor 1, II=Resistor 2
2. Relation of mounting holes and terminals. Refer to each piercing plan for dimensions.
3. View from mounted part side.

■ Shaft Trims and Dimensions in mm

Dimensions	Trim Position
	 Terminal side

Note: The drawing at full CCW position

Style			Dimensions in mm			
			Shaft			Bushing, Sleeve
			L	ℓ_1	Corner cut	ℓ_2
without Bushing	Horizontal		15.0	4.5	C0.5	—
			20.0	7.0	C1.0	—
			25.0	12.0	C1.0	—
			30.0	12.0	C1.0	—
	Vertical		15.0	4.5	C0.5	—
			20.0	7.0	C1.0	—
			25.0	12.0	C1.0	—
			30.0	12.0	C1.0	—
with Bushing or with Sleeve	Horizontal		12.5	7.0	C1.0	5.0
			15.0	7.0	C1.0	5.0
			17.5	12.0	C1.0	5.0
			20.0	12.0	C1.0	5.0, 7.0
			22.5	12.0	C1.0	5.0, 7.0
	Vertical		12.5	7.0	C1.0	5.0
			15.0	7.0	C1.0	5.0
			17.5	12.0	C1.0	5.0
			20.0	12.0	C1.0	5.0, 7.0
			22.5	12.0	C1.0	5.0, 7.0