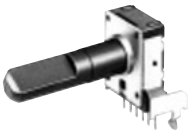


12 mm Square Two-in-One Potentiometers

Type: **EVJC/EVJY**



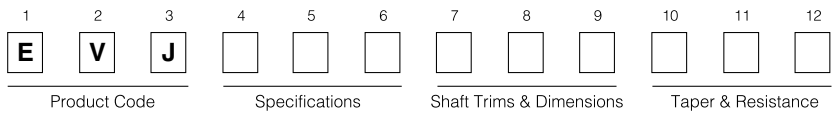
■ Features

- Rectangular-shaped, automatic mounting type
- High tactile feedback (various types with bushing available)
- Available for automatic dip soldering (Flux-proof structure ensured by using the insert soldering method)
- Highly reliable, dust-proof type

■ Recommended Applications

- Audio Equipment
- Video Equipment
- Electronic Musical Instruments

■ Explanation of Part Numbers



■ 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.

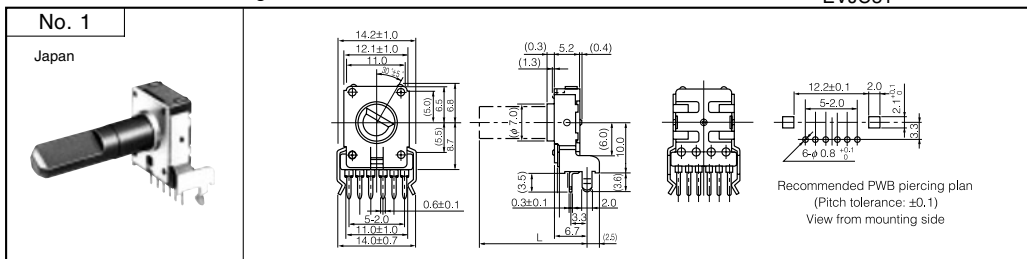
■ Dimensions in mm (not to scale)

for Volume : **EVJC00** (without detent)

for Tone : EVJC30 (with detent)

EVJC31

- Horizontal, without Bushing

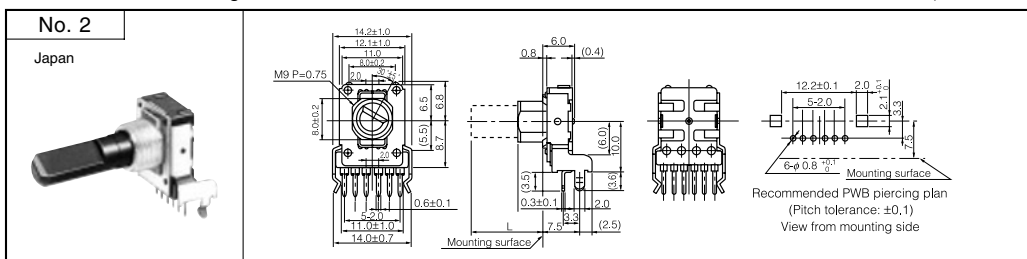


for Volume: EVJC20

for Tone : EVJC50(without detent)

EVJC5

- Horizontal, with Bushing

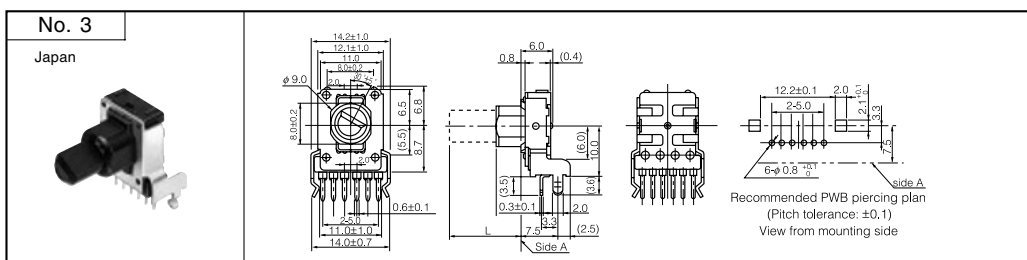


for Volume: EVJC25

for Tone : EVJC55(without detent)

FV.JC5

- Horizontal, with Sleeve

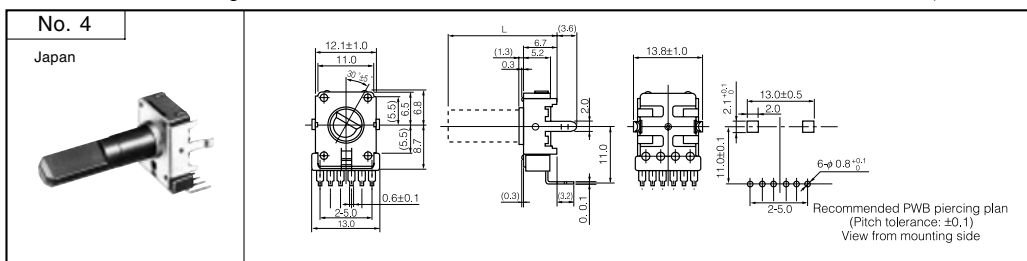


for Volume: EVJY00

for Tone : EVJY80 (without detent)

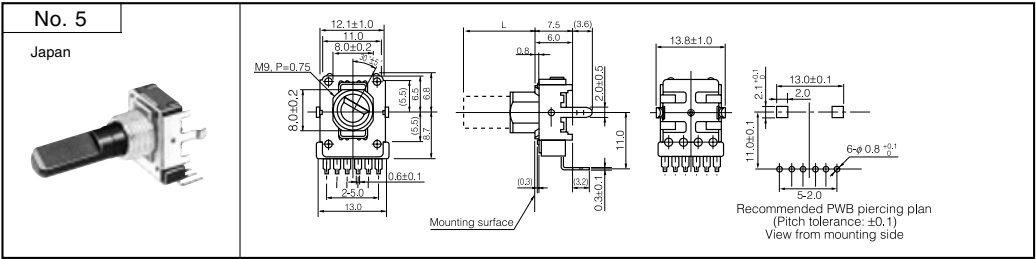
EVJY8

- Vertical, without Bushing

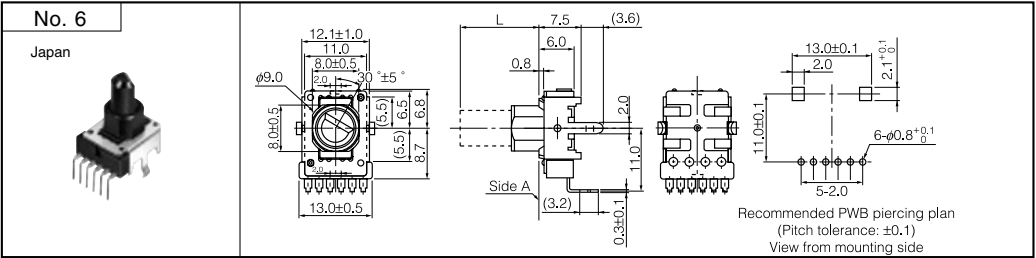


■ Dimensions in mm (not to scale)

- for Volume: EVJY10
- for Tone : EVJY90 (without detent)
- EVJY91 (with detent)
- Vertical, with Bushing



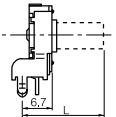
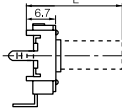
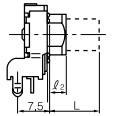
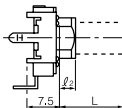
- for Volume: EVJY15
- for Tone : EVJY95 (without detent)
- EVJY96 (with detent)
- Vertical, with Sleeve



■ Shaft Trims and Dimensions in mm

Dimensions	Trim Position
	 Terminal side

Note: The drawing at full CCW position

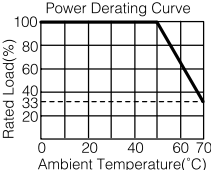
Style			Dimensions in mm			
			Shaft			Bushing
			L	ℓ ₁	Cornercut	ℓ ₂
without Bushing	Horizontal		15.0	4.5	C0.5	—
			20.0	7.0	C1.0	—
			25.0	12.0	C1.0	—
			30.0	12.0	C1.0	—
	Vertical		15.0	4.5	C0.5	—
			20.0	7.0	C1.0	—
			25.0	12.0	C1.0	—
			30.0	12.0	C1.0	—
with Bushing	Horizontal		12.5	7.0	C1.0	5.0
			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
			22.5	12.0	C1.0	5.0, 7.0
			22.5	12.0	C1.0	5.0, 7.0

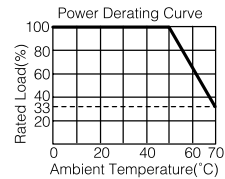
■ Major Specifications

1. Mechanical Specifications

Applications	12 mm square Two-in-One
Rotation Angle	300 °±5 °
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.

2. Electrical Specifications

Nominal Total Resistance	5 kΩ to 500 kΩ (Tolerance ±20 %)																																																		
Taper	A, B, C, D, G, BH																																																		
Power Rating	<div>0.05 W (0 °C to 50 °C)</div> <div>For potentiometers operated in ambient temperatures above 50 °C, Rating shall be derated in accordance with the figure at right.</div> <div><div>Power Derating Curve</div></div>																																																		
Voltage Rating	<div>$E = \sqrt{P \cdot R}$ but $E \leq 50$ Vac</div> <div>E=Voltage Rating (V)</div> <div>P=Power Rating (W)</div> <div>R=Nominal Total Resistance (Ω)</div>																																																		
Residual Resistance	<table><tr><th rowspan="2">Nominal Total Resistance</th><th rowspan="2">Type Taper & Terminal</th><th colspan="4">For general purpose (tone)</th><th colspan="4">For volume control</th></tr><tr><th>A, B, D, G 1 to 2</th><th>B, C, G 2 to 3</th><th>A, D 2 to 3</th><th>C 1 to 2</th><th>A, B, D 1 to 2</th><th>A, B, D 2 to 3</th><th>C 1 to 2</th><th>C 2 to 3</th></tr><tr><td>5 kΩ < R ≤ 50 kΩ</td><td></td><td>25 Ω max.</td><td></td><td>25 Ω max.</td><td></td><td>15 Ω max.</td><td>25 Ω max.</td><td>20 Ω max.</td><td></td></tr><tr><td>50 kΩ < R ≤ 250 kΩ</td><td></td><td>25 Ω max.</td><td></td><td>50 Ω max.</td><td></td><td>15 Ω max.</td><td>50 Ω max.</td><td>20 Ω max.</td><td></td></tr><tr><td>250 kΩ < R ≤ 500 kΩ</td><td></td><td>100 Ω max.</td><td></td><td>100 Ω max.</td><td></td><td>50 Ω max.</td><td>100 Ω max.</td><td>50 Ω max.</td><td></td></tr></table>			Nominal Total Resistance	Type Taper & Terminal	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	Type Taper & Terminal	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																																										
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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.																																											
Maximum Attenuation (for volume control, taper A, B, D)	<table><tr><th>Nominal total resistance</th><th>Max. Attenuation</th><th>Insertion loss</th></tr><tr><td>5 kΩ ≤ R < 10 kΩ</td><td>−65 dB max.</td><td rowspan="4">0.1 dB max.</td></tr><tr><td>10 kΩ ≤ R < 50 kΩ</td><td>−72 dB max.</td></tr><tr><td>50 kΩ ≤ R < 100 kΩ</td><td>−82 dB max.</td></tr><tr><td>100 kΩ ≤ R</td><td>−92 dB max.</td></tr></table>			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.																																				
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50 kΩ ≤ R < 100 kΩ	−82 dB max.																																																		
100 kΩ ≤ R	−92 dB max.																																																		
Tracking	<div>For volume control within</div> <div>3 dB at −40 to 0 dB</div> <div>For Tone control within</div> <div>3 dB at midpoint</div>																																																		
Insulation Resistance	100 MΩ min. at 250 Vdc																																																		
Dielectric Withstanding Voltage	300 Vac for 1 minute																																																		
Noise Level	<div>47 mV max.</div> <div>Apply 20 Vdc (When Voltage Rating < 20 V, use the rated voltage.)</div> <div>Rotate shaft at 30 r/min.</div>																																																		



3. Endurance

Rotation Life	15000 cycles min.
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Note: No direct current should be applied.

4. Minimum Quantity/Packing Unit

Minimum Quantity/ Packing Unit	EVJC/EVJY	80 pcs. (Tray Pack)	L ≥ 20.0 mm
		60 pcs. (Tray Pack)	L < 20.0 mm
Quantity/ Carton	EVJC/EVJY	800 pcs.	L ≥ 20.0 mm
		600 pcs.	L < 20.0 mm