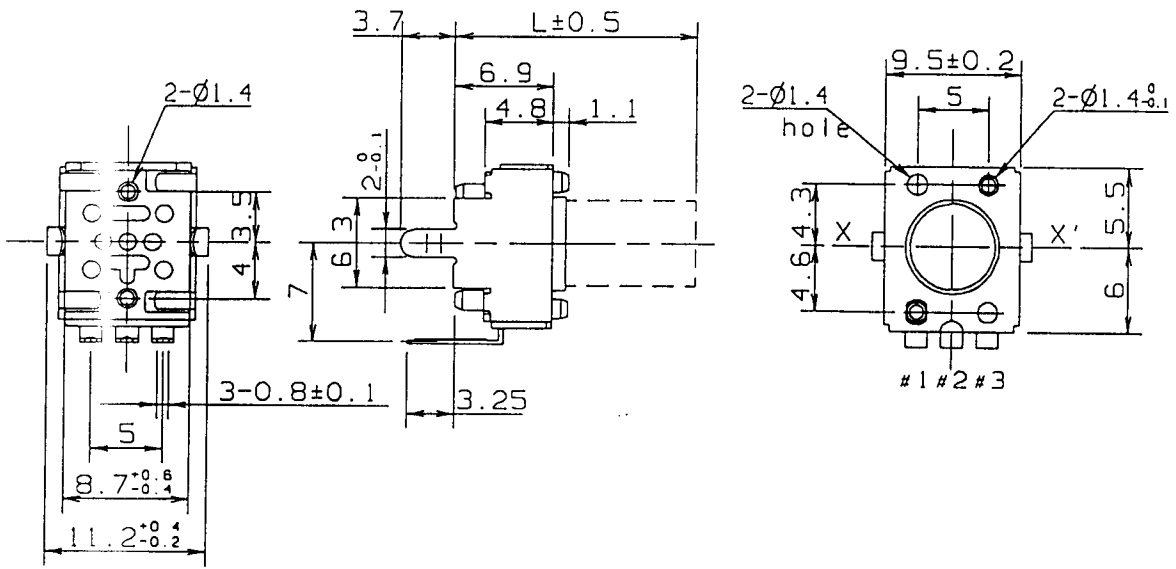


Tolerance unless otherwise specified ± 0.5



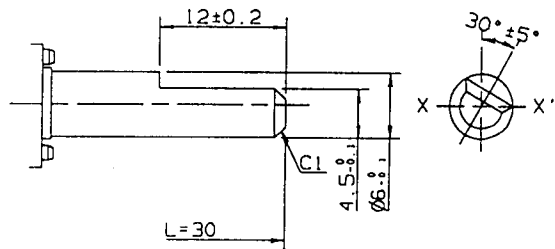
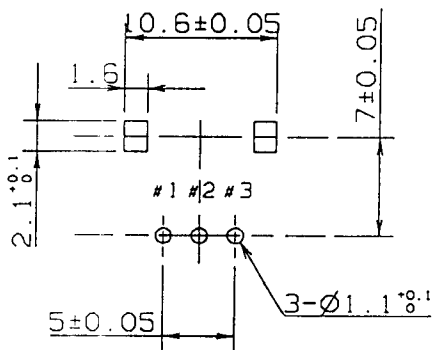
P.C.B. piercing plan.

(Tolerance : ± 0.1)
 (View from mounting side)
 P.C.B. thickness $t=1.6$

Shaft diagram.
 (Side view)

Shaft rotation angle detail.

Shaft shown in full
 C.C.W. position.



DESIGN	Y. Sakamoto	Jan 12, 1996	NAME			
DRAW			VARIABLE RESISTOR	ISSUE	REVISIONS	DATE
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Scope :

- Control shown is designed in reference with our specifications.
- Also see samples attached.

Mechanical Specifications :

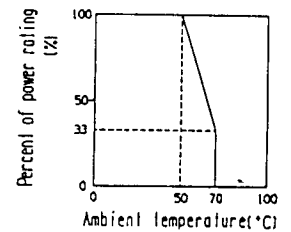
- Shaft rotation angle : 300° ± 5°
- Shaft rotation torque : 1.0 to 8.0 mN·m(10 to 80 gf·cm) (At 5 to 35°C)
(Revolutionary speed : 60° /sec.)
- Shaft stopper strength : 0.3 N·m(3kgf·cm)min.
- Shaft pull-push strength : Axis direction · 100 N(10kgf)min.
The perpendicular shaft direction · 0.4 N·m(4kgf·cm)min.
- Shaft wobble : 0.8×L/20mm max. for one side. (After soldering)
When a moment of 25 mN·m(250gf·cm) is applied to the shaft, perpendicularly at a point 5mm from the top the shaft.
(L=Please refer to external dimensions.)

Electrical Specifications :

- Taper

Taper (Our code)	Out put voltage between term. 1 & 2 Operating voltage between term. 1 & 3	Out put voltage between term. 2 & 3 Operating voltage between term. 1 & 3
	×100 (%)	×100 (%)
	At 150° rotation	At 150° rotation
B	40 to 60	
D	6 to 15	

Power Derating Curve



- Insulation resistance : 50 MΩ min. (At DC 250 V)
- Withstand voltage : AC 250 V , 1 minute min.

Durability :

- Rotation life : 10,000 T min.
- Soldering heat : No intermittent and breakdown after soldering.
(270°C , 5 sec. max.)

Notes :

- Shaft material : Polycarbonate. Color "Black" (94V-2)
Do be carefull to use oil,grease and adhesive.
- Marking : • Our identification mark **M**
• Nominal resistance value **M** . Date code
• Taper code
- Others : JPN
: Correspond to JIS-C-6443 requirements.

DESIGN	Y. Sakamoto	Jan 12,1996	NAME			
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*1

No.	Part No.	Nominal total res. value and tolerance	Taper (Our code)	Minimum resistance between terminals		Rated power (W)	Rated Voltage(V)		Noise level (mV)
				#1 & #2	#2 & #3		AC	DC	
1	EVU F2A F30 B53	5k $\Omega \pm 20\%$	B	50 Ω max.	50 Ω max.	0.05	15	15	100max.
2	EVU F2A F30 B14	10k $\Omega \pm 20\%$	B	50 Ω max.	50 Ω max.	0.05	22	20	100max.
3	EVU F2A F30 B24	20k $\Omega \pm 20\%$	B	50 Ω max.	50 Ω max.	0.05	31	20	100max.
4	EVU F2A F30 B54	50k $\Omega \pm 20\%$	B	50 Ω max.	50 Ω max.	0.05	50	20	100max.
5	EVU F2A F30 D53	5k $\Omega \pm 20\%$	D	50 Ω max.	50 Ω max.	0.05	15	15	100max.
6	EVU F2A F30 D14	10k $\Omega \pm 20\%$	D	50 Ω max.	50 Ω max.	0.05	22	20	100max.
7	EVU F2A F30 D24	20k $\Omega \pm 20\%$	D	50 Ω max.	50 Ω max.	0.05	31	20	100max.
8	EVU F2A F30 D54	50k $\Omega \pm 20\%$	D	50 Ω max.	50 Ω max.	0.05	50	20	100max.
9		$\Omega \pm 20\%$		Ω max.	Ω max.	0.05			100max.
10		$\Omega \pm 20\%$		Ω max.	Ω max.	0.05			100max.
11		$\Omega \pm 20\%$		Ω max.	Ω max.	0.05			100max.
12		$\Omega \pm 20\%$		Ω max.	Ω max.	0.05			100max.
13		$\Omega \pm 20\%$		Ω max.	Ω max.	0.05			100max.
14		$\Omega \pm 20\%$		Ω max.	Ω max.	0.05			100max.
15		$\Omega \pm 20\%$		Ω max.	Ω max.	0.05			100max.
16		$\Omega \pm 20\%$		Ω max.	Ω max.	0.05			100max.
17		$\Omega \pm 20\%$		Ω max.	Ω max.	0.05			100max.
18		$\Omega \pm 20\%$		Ω max.	Ω max.	0.05			100max.
19		$\Omega \pm 20\%$		Ω max.	Ω max.	0.05			100max.
20		$\Omega \pm 20\%$		Ω max.	Ω max.	0.05			100max.
21		$\Omega \pm 20\%$		Ω max.	Ω max.	0.05			100max.
22		$\Omega \pm 20\%$		Ω max.	Ω max.	0.05			100max.
23		$\Omega \pm 20\%$		Ω max.	Ω max.	0.05			100max.
24		$\Omega \pm 20\%$		Ω max.	Ω max.	0.05			100max.
25		$\Omega \pm 20\%$		Ω max.	Ω max.	0.05			100max.
26		$\Omega \pm 20\%$		Ω max.	Ω max.	0.05			100max.
27		$\Omega \pm 20\%$		Ω max.	Ω max.	0.05			100max.
28		$\Omega \pm 20\%$		Ω max.	Ω max.	0.05			100max.
29		$\Omega \pm 20\%$		Ω max.	Ω max.	0.05			100max.
30		$\Omega \pm 20\%$		Ω max.	Ω max.	0.05			100max.

*1 For potentiometers operated in ambient temperatures above 50°C,
Power Rating shall be derated in accordance with the Power Derating Curve.

DESIGN	Y. Sakamoto	Jan 12, 1996	NAME	VARIABLE RESISTOR	ISSUE	REVISIONS	DATE
DRAW			TYPE NO.	EVU F2A F30 TYPE	DRAWING NO.		
CHECK	<i>C. J. O...</i>	Jan 12, 1996			RV-H- 52190		
APPROVAL	<i>S. Shida</i>	Jan 12, 1996			3 / 4		

Tsuyama Masushita Electric Co., Ltd.

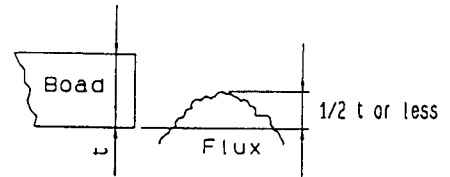
Soldering conditions :

- 1) When dipping in solder, apply the flux by the foaming method under conditions mentioned below.

Specific gravity of flux — 0.83 ± 0.05

Flux foaming time ————— Within 5 sec.

Flux foaming level ————— 1 / 2t or less.



- 2) After flux application, sufficiently dry the flux by preheating under the conditions mentioned below.

Temperature ————— 90 to 100°C max. (Ambient temp.)

Time ————— 50 to 70 sec.

- 3) Soldering should be performed at 270°C or less within 5 sec.

- 4) P. C. B condition.

Thickness ————— t=1.6mm

Material ————— Phenol raminated plate with single side copper plating. ※

Pierced hole diameter ——— Please refer P. C. B piercing plan in the dimensional drawing.

※ In case you use phenol raminated plate with both sides copper plating, please aconsult us.

- 5) Please avoid wasing after soldering, it may cause electrical cantact failure by flux.

- 6) If the conditions 1) to 5) are satisfied, there will be no problems such as flux sucked up from terminals and electrical contact.

But, care should be taken in the case of wiring such as jumper wire near the VR body where flux is detained.

DESIGN	<i>Y. Sakamoto</i>	Jan 12, 1996	NAME			
DRAW			VARIABLE RESISTOR	ISSUE	REVISIONS	DATE
CHECK	<i>C. J. O.</i>	Jan 12, 1996	TYPE NO.	DRAWING NO.		
APPROVAL	<i>S. Takeda</i>	Jan 12, 1996	EVU F2A F30 TYPE	RV-H- 52190	4 / 4	