

# POWER RELAY

## 1 POLE—5 A (MEDIUM LOAD CONTROL)

### JV SERIES

#### ■ FEATURES

- UL, CSA, VDE, SEMKO recognized
- UL class B (130°C) insulation
- Low profile and space saving
  - Height: 12.5 mm
  - Mounting space: 175 mm<sup>2</sup>
- High sensitivity in small package
  - Operating power: 0.112 to 0.13 W
  - Nominal power: 0.2 to 0.3 W
- High insulation with reinforced insulation system (between coil and contacts)
  - Insulation distance: 8 mm
  - Dielectric strength: 5,000 VAC
  - Surge strength: 10,000 V
- Plastic materials—UL94 flame class V-0
  - UL CTI level class 2
- Plastic sealed type
- Cadmium free contacts



#### ■ ORDERING INFORMATION

[Example]       $\frac{JV}{(a)}$  -  $\frac{12}{(*)}$   $\frac{S}{(b)}$  -  $\frac{K}{(c)}$   $\frac{T}{(d)}$   $\frac{T}{(e)}$

(a)	Series Name	JV : JV Series
(b)	Nominal Voltage	Refer to the COIL DATA CHART
(c)	Coil Type	Nil : Single type S : High sensitivity type
(d)	Enclosure	K : Plastic sealed type
(e)	Mounting	T : High density mounting type

Note: Actual marking omits the hyphen (-) of (\*)

## ■ SAFETY STANDARD AND FILE NUMBERS

UL 508, 873 (File No. E56140)  
 C22.2 No. 14 (File No. LR35579)  
 CSA certified to NRTL/C (class 3211-87)  
 VDE 0435, 0631, 0700 (File No. 11039-4940-1012)

Nominal voltage	Contact rating
3 to 48 VDC	1/8 HP 125 VAC/250 VAC 5 A 30 VDC/250 VAC, resistive 2 A 250 VAC inductive (PF=0.4) Pilot duty C 300

## ■ SPECIFICATIONS

Item		Standard Type JV-( )	High Sensitivity Type JV-( ) S
Contact	Arrangement	1 form A (SPST-NO)	
	Material	Silver alloy	
	Type	Single	
	Resistance (initial)	Maximum 70 mΩ (at 1 A 6 VDC)	
	Rating (resistive)	5 A 250 VAC or 5 A 30 VDC	
	Maximum Carrying Current	5 A	
	Maximum Switching Power	1,250 VA, 150 W	
	Maximum Switching Voltage	250 VAC, 150 VDC	
	Maximum Switching Current	5 A	
	Minimum Switching Load*1	100 mA 5 VDC	
Coil	Nominal Power (at 20°C)	0.3 W	0.2 W
	Operate Power (at 20°C)	0.13 W	0.113 W
	Operating Temperature	-40°C to +70°C (no frost) (refer to the CHARACTERISTIC DATA)	
Time Value	Operate (at nominal voltage)	Maximum 8 ms	
	Release (at nominal voltage)	Maximum 4 ms	
Insulation	Resistance (500 VDC)	Minimum 1,000 MΩ	
	Dielectric Strength	between open contacts	750 VAC 1 minute
		between coil and contacts	5,000 VAC 1 minute
	Surge Strength	10,000 V (1.2 x 50 μs (between coil and contacts))	
Life	Mechanical	5 × 10 <sup>6</sup> operations minimum	
	Electrical	1 × 10 <sup>5</sup> operations minimum (contact rating)	
Other	Vibration Resistance	Misoperation	10 to 55 Hz (double amplitude of 1.65 mm)
		Endurance	10 to 55 Hz (double amplitude of 5.0 mm)
	Shock Resistance	Misoperation	100 m/s <sup>2</sup> (11 ±1 ms)
		Endurance	1,000 m/s <sup>2</sup> (6 ±1 ms)
	Weight	Approximately 4.3 g	

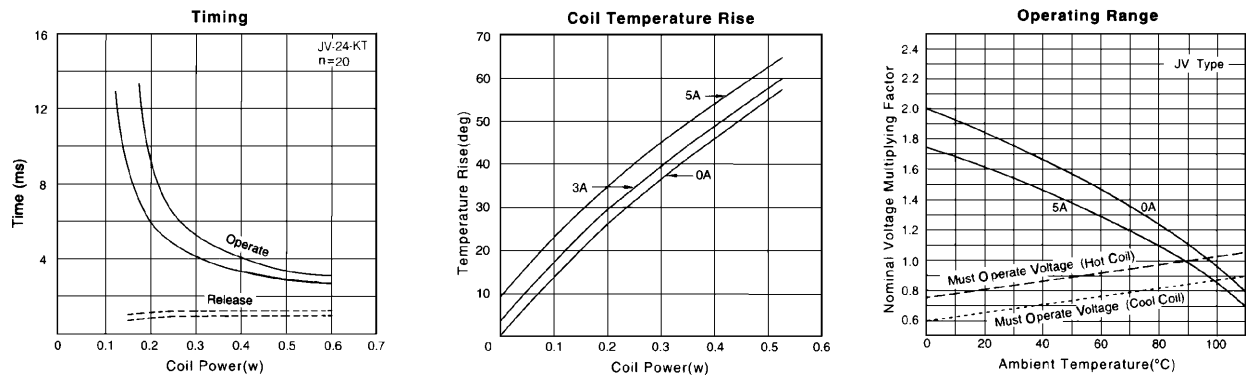
\*1 Minimum switching loads mentioned above are reference values. Please perform the confirmation test with the actual load before production since reference values may vary according to switching frequencies, environmental conditions and expected reliability levels.

## COIL DATA CHART

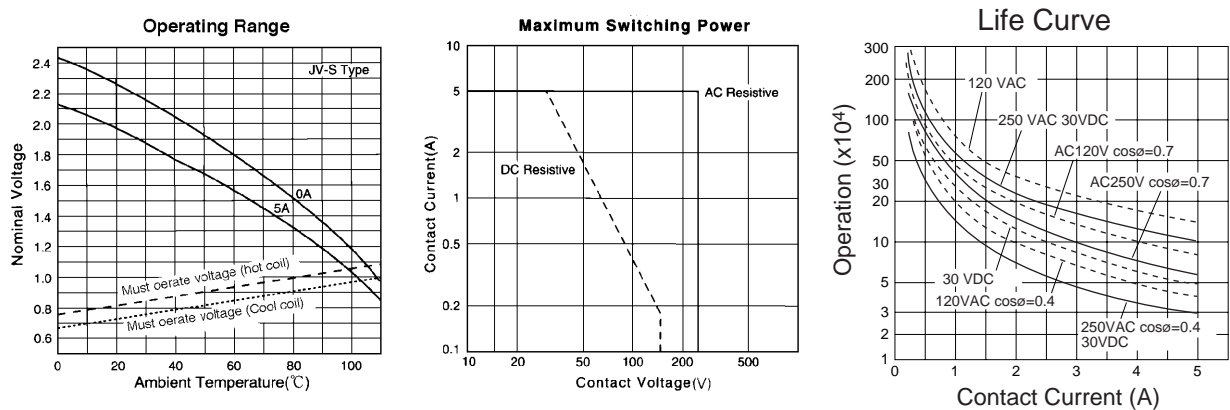
	MODEL	Nominal voltage	Coil resistance ( $\pm 10\%$ )	Must operate voltage	Must release voltage	Nominal power
Standard Type	JV- 3-KT	3 VDC	30 $\Omega$	+1.98 VDC	+0.15 VDC	300 mW
	JV- 5-KT	5 VDC	83.3 $\Omega$	+3.3 VDC	+0.25 VDC	300 mW
	JV- 6-KT	6 VDC	120 $\Omega$	+3.96 VDC	+0.3 VDC	300 mW
	JV- 9-KT	9 VDC	270 $\Omega$	+5.94 VDC	+0.45 VDC	300 mW
	JV-12-KT	12 VDC	480 $\Omega$	+7.9 VDC	+0.6 VDC	300 mW
	JV-18-KT	18 VDC	1,080 $\Omega$	+11.9 VDC	+0.9 VDC	300 mW
	JV-24-KT	24 VDC	1,920 $\Omega$	+15.8 VDC	+1.2 VDC	300 mW
	JV-48-KT	48 VDC	7,680 $\Omega$	+31.7 VDC	+2.4 VDC	300 mW
High Sensitivity Type	JV- 3S-KT	3 VDC	45 $\Omega$	+2.25 VDC	+0.15 VDC	200 mW
	JV- 5S-KT	5 VDC	125 $\Omega$	+3.75 VDC	+0.25 VDC	200 mW
	JV- 6S-KT	6 VDC	180 $\Omega$	+4.5 VDC	+0.3 VDC	200 mW
	JV- 9S-KT	9 VDC	405 $\Omega$	+6.75 VDC	+0.45 VDC	200 mW
	JV-12S-KT	12 VDC	720 $\Omega$	+9.0 VDC	+0.6 VDC	200 mW
	JV-18S-KT	18 VDC	1,620 $\Omega$	+13.5 VDC	+0.9 VDC	200 mW
	JV-24S-KT	24 VDC	2,880 $\Omega$	+18.0 VDC	+1.2 VDC	200 mW

Note : All values in the table are measured at 20°C.

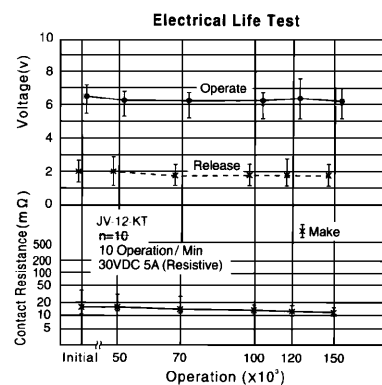
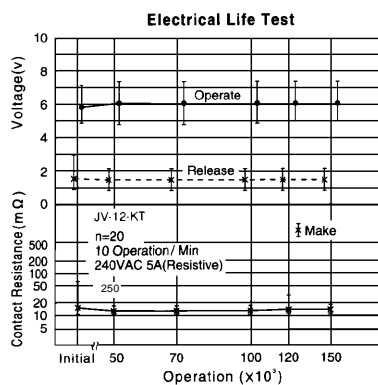
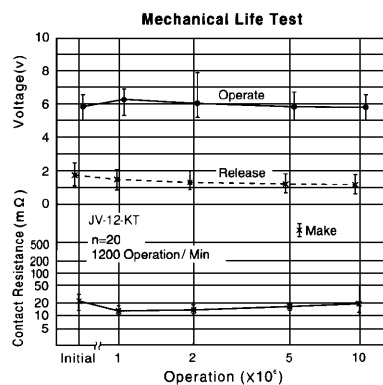
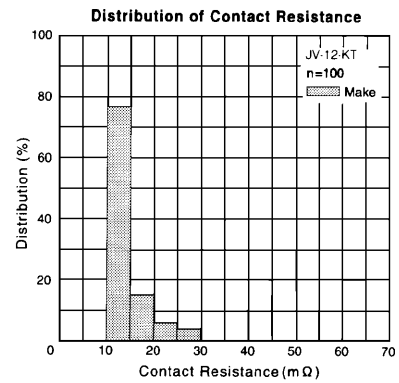
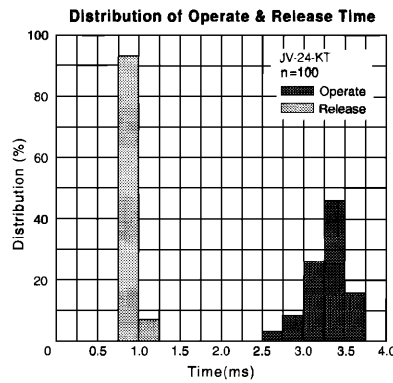
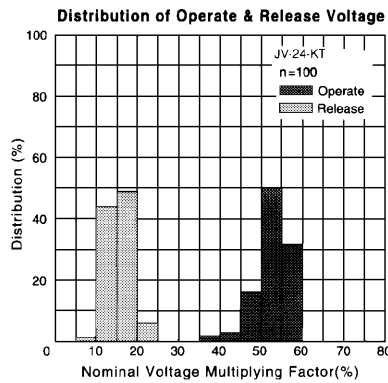
## CHARACTERISTIC DATA



## REFERENCE DATA



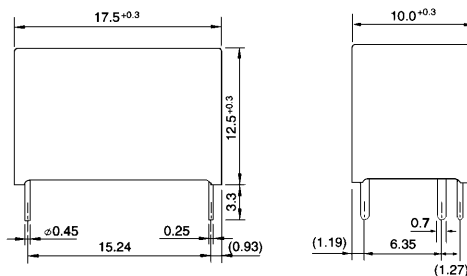
## REFERENCE DATA



## DIMENSIONS

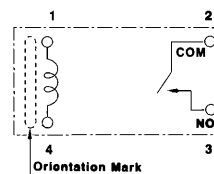
### ● Dimensions

JV-KT type



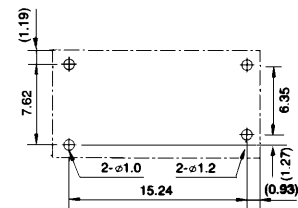
### ● Schematics

(BOTTOM VIEW)



### ● PC board mounting

hole layout  
(BOTTOM VIEW)



Unit: mm

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