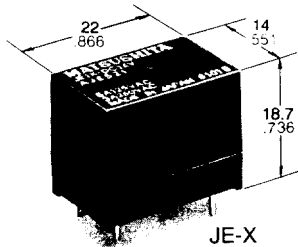
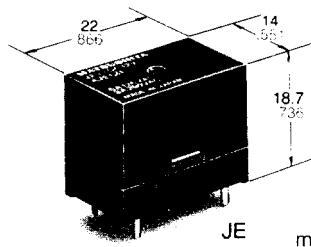


JE-X

515-800, 515-814

**NAIS****COMPACT ECONOMICAL  
POWER RELAYS****JE-X  
RELAYS**

JE-X



JE

mm inch

UL File No.: E43028

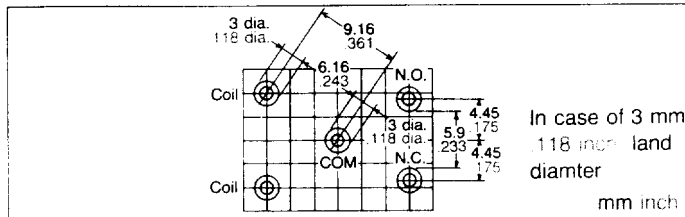
CSA File No.: LR26550

TÜV File No.: 91021645558

- Compact size—Height Max. 18.7 mm (.736 inch) lower than JY relay (22.5 mm) (.886 inch)
- High contact capacity—5 A 125 V AC
- Safety-oriented between coil and contact terminals
- All plastic materials: UL flame retardance 94V-0

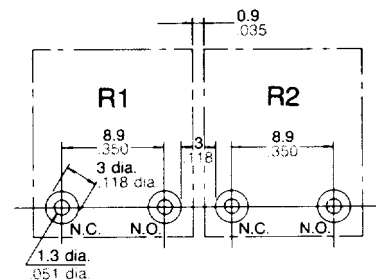
**TERMINAL LAYOUT****• JE-X**

Distance of 9.16 mm (.360 inch) between common and coil terminals and 8.9 mm (.350 inch) between contacts give room to the land diameter width when the relay is mounted on PC board, and allow design of patterns with insulation distances of 6 mm (.236 inch) between common and coil and 5.9 mm (.232 inch) between contacts.



- 3 mm (.118 inch) or more insulation distance for close mounting can be kept easily with JE-X relays.

Compared with JE relays, each N.O. and N.C. terminal is 0.63 mm (.025 inch) toward inside. It gives room to the distance between the land of terminals when closely mounted, to maintain 3 mm (.118 inch) or more insulation distance.

**JE-X****SPECIFICATIONS****Contact**

Arrangement	1 Form A	1 Form C
Initial contact resistance, max. (By voltage drop 6 V DC 1 A)	100 mΩ	
Contact material	Silver alloy	
Rating (resistive)	831 VA	
Max. switching power	277 V AC, 30 V DC	
Max. switching voltage	5 A	
Max. switching current	3 A 1/10 HP 277 V AC 5 A 1/10 HP 125 V AC 5 A 30 V DC	
UL/CSA rating	5 A 125 V ~ (cos φ = 0.4, 1.0) 3 A 250 V ~ (cos φ = 0.4, 1.0) 3 A 30 V ~	
TÜV rating	5 × 10 <sup>5</sup>	
Expected life (min. operations)	5 × 10 <sup>5</sup>	
Mechanical	10 <sup>5</sup> (3A, 250VAC, 5A 125VAC, 5A 30VDC)	
Electrical (resistive)		
Coil		
Minimum operating power	256mW (196 mW for JE1aXN, JE1XN, JE1aN & JE1N types)	
Nominal operating power	400 mW	

**Characteristics (at 25°C 77°F)**

Max. operating speed	20 cpm (at 70°C)	
Operate time (at nominal voltage)	Approx. 10 msec.	
Release time (at nominal voltage)	Approx. 10 msec.	
Initial breakdown voltage		
Between open contacts	750 Vrms	
Between contacts and coil	1,500 Vrms	
Surge voltage between coil and contact	Min. 5,000 V	
Initial insulation resistance	Min. 100 MΩ (at 500 V DC)	
Temperature rise	Max. 65 deg. (at nominal voltage)	
Ambient temperature	-40 to +70°C -40 to +158°F	
Shock resistance	Functional	Min. 10 G
	Destructive	Min. 100 G
Vibration resistance	Functional	10 G, 10 to 55 Hz at double amplitude of 1.6 mm
	Destructive	12 G, 10 to 55 Hz at double amplitude of 2.0 mm
Unit weight	Approx. 9.2 g, .32 oz	

## TYPICAL APPLICATIONS ORDERING INFORMATION

- Home appliances  
Oven, range, dryer, heater,  
Air conditioner etc.
- Automotive
- Garage door opener
- Personal computer
- Programmable controller

Ex. JE <span style="border: 1px solid black; padding: 0 5px;">1</span> <span style="border: 1px solid black; padding: 0 5px;">X</span> <span style="border: 1px solid black; padding: 0 5px;">N</span> — <span style="border: 1px solid black; padding: 0 5px;">DC12V</span> — <span style="border: 1px solid black; padding: 0 5px;">H</span>				
Contact arrangement	Type	Pick-up voltage	Coil voltage	Protective construction
1a: 1 form a 1: 1 form C	X: JE-X relay	Nil: 80% of nominal voltage N: 70% of nominal voltage	DC 5, 6, 9, 12, 24, 48 V	Nil: Dust cover type H: Flux-resistant type

(Note) Standard packing Carton: 100 pcs. Case: 500 pcs.

## TYPES

Contact arrangement	Coil voltage	Part No.	
		JE-X	
		Standard type	Flux-resistant type
1 Form A	5 V DC	JE1aX-DC5V	JE1aX-DC5V-H
	6 V DC	JE1aX-DC6V	JE1aX-DC6V-H
	9 V DC	JE1aX-DC9V	JE1aX-DC9V-H
	12 V DC	JE1aX-DC12V	JE1aX-DC12V-H
	24 V DC	JE1aX-DC24V	JE1aX-DC24V-H
	48 V DC	JE1aX-DC48V	JE1aX-DC48V-H
1 Form C	5 V DC	JE1X-DC5V	JE1X-DC5V-H
	6 V DC	JE1X-DC6V	JE1X-DC6V-H
	9 V DC	JE1X-DC9V	JE1X-DC9V-H
	12 V DC	JE1X-DC12V	JE1X-DC12V-H
	24 V DC	JE1X-DC24V	JE1X-DC24V-H
	48 V DC	JE1X-DC48V	JE1X-DC48V-H

Note: Pick-up 70% voltage types (JE1aXN, JE1XN, JE1aN, JE1N) are available.

## COIL DATA at 20°C 68°F

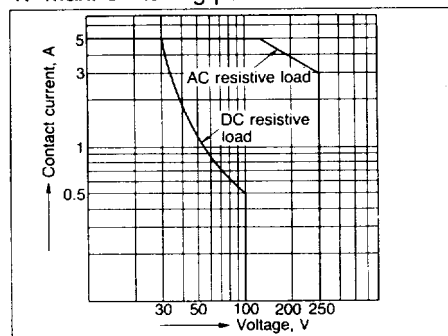
Nominal voltage, V DC	Pick-up voltage, V DC (max.)	Drop-out voltage, V DC (min.)	Nominal operating current, mA (±10%)	Coil resistance, Ω (±10%)	Nominal operating power, mW	Maximum allowable voltage, V DC (at 70°C)
5	4.0	0.5	80	62.5	400	6.5
6	4.8	0.6	67	90	400	7.8
9	7.2	0.9	44	202	400	11.7
12	9.6	1.2	33	360	400	15.6
24	19.2	2.4	17	1,440	400	31.2
48	38.4	4.8	8.3	5,760	400	62.4

Notes: 1. Flux-resistant types have the same coil data as standard types.

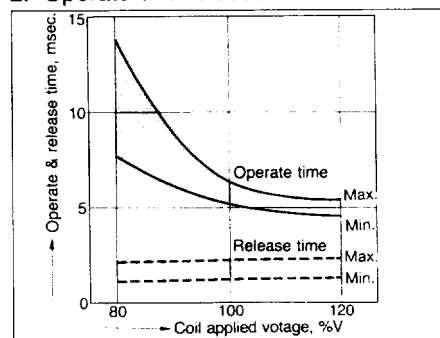
2. Pick-up 70% voltage types (JE1aXN, JE1XN, JE1aN, JE1N) have also the same coil data as above except for pick-up voltage.

## DATA

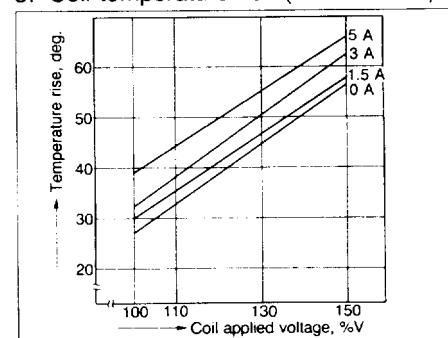
### 1. Max. switching power



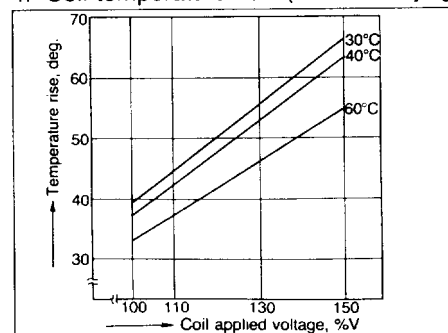
### 2. Operate and release time



### 3. Coil temperature rise (at 30°C 86°F)



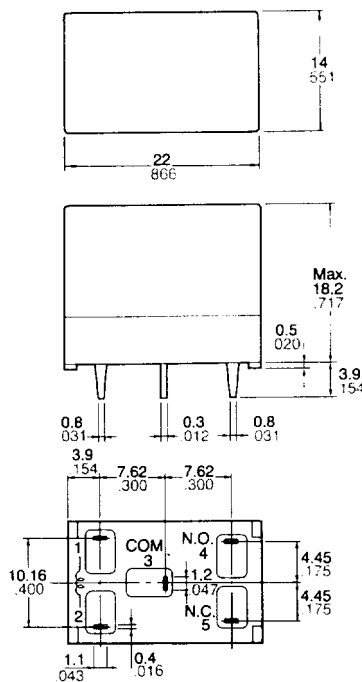
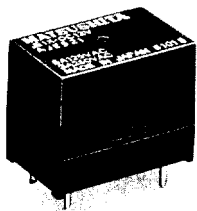
### 4. Coil temperature rise (Contact carrying current: 5 A)



# JE-X, JE

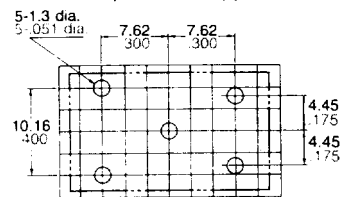
## DIMENSIONS

### 1. JE-X



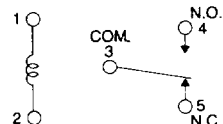
General tolerance:  $\pm 0.3 \pm .012$

### PC board pattern (Copper-side view)



Tolerance:  $\pm 0.1 \pm .004$

### Schematic (BOTTOM VIEW)



Note: The above shows 1 form C type, and No. 5 terminal is eliminated on the 1 form A type.

## NOTES

1. Soldering should be carried out within 3 sec. at 350°C 662 F or within 5 sec. at 250°C 482 F.
2. Do not remove covers from relays to keep operating characteristics.
3. Avoid using in a location where there is excessive dust, dirt, organic vapors, humidity, water dropping, oil, vibration and shock.