

# JS SERIES RELAY – NONLATCH 1PDT, 10 AMP



Applicable sockets: SO-1063-9033/9034



Application Notes: 002 007 023

## All weld construction

• C	Contact arrangement	1 PDT		
• Q	ualified to	MIL-PRF-83536/36		

## PRINCIPLE TECHNICAL CHARACTERISTICS

Contacts rated at	115 Vac 60Hz		
• Weight	0.1 lbs. max		
Dimensions	1.01in x 0.51in x 1in		
Special models available upon request			
Hermetically sealed, corrosion resistant metal can			

## CONTACT ELECTRICAL CHARACTERISTICS

Contact rating per pole and load type [1]	Load current in Amps 115 Vac, 60 Hz, 1Ø (CASE GROUNDED)				
Resistive	10				
Inductive	10				
Motor	8				
Lamp	4				
Overload	20				
Rupture	N/A				

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specification. Dimensions are in inches unless otherwise specified. Rev. 3/2016. Export Control Regulation : EAR 99 - These commodities, technology or software are exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to U.S. law is prohibited

### COIL CHARACTERISTICS (Vdc/Vac)

CODE	А	В	С	м	N [5]	R [5]	V [5]
	(Vdc)	(Vdc)	(Vdc)	(Vdc)	(Vdc)	(Vdc)	(Vdc)
Nominal operating voltage	28	12	6	48	28	12	6
Maximum operating voltage	29	14.5	7.3	50	29	14.5	7.3
Maximum pickup voltage							
- Cold coil at +125° C	18	9	4.5	36	18	9	4.5
- During high temp test at +125° C	19.8	9.9	5	38	19.8	9.9	5
- During continuous current test at +125° C	22.5	11.25	5.7	42	22.5	11.25	5.7
Maximum drop-out voltage	7	4.5	2.5	14	7	4.5	2.5
Coil resistance $\Omega \pm 10\%$ at $\pm 25^{\circ}$ C or max coil current (AMPS) at $\pm 25^{\circ}$ C	320 Ω	80 Ω	20 Ω +20% -10%	1000 Ω	320 Ω	80 Ω	20 Ω +20% -10%

## **GENERAL CHARACTERISTICS**

Temperature range	-70°C to +125°C			
Minimum operating cycles (life) at rated load	25,000			
Minimum operating cycles (life) at 25% rated load	100,000			
Dielectric strength at sea level				
- All circuits to ground and circuit to circuit	1250 Vrms			
- Coil to ground and coil to coil	1000 Vrms			
Dielectric strength at altitude 80,000 ft	500 Vrms [2]			
Insulation resistance				
- Initial (500 Vdc)	100 M Ω min			
- After environmental tests (500 Vdc)	50 M Ω min			
Sinusoidal vibration (A, D and J mounting)	0.12 d.a. / 10 to 70 Hz 30G / 70 to 3000 Hz			
Random vibration				
- Applicable specification	MIL-STD-202			
- Method	214			
- Test condition - A, D and J mounting	1G (0.4G <sup>2</sup> /Hz, 50 to 2000 Hz)			
- Duration	15 minutes each plane			
Shock (A, D and J mounting)	200G / 6 ms			
Maximum contact opening time under vibration and shock	10 µs			
Operate time at nominal voltage - Series JS @ 25°C	10 ms max			
Release time at nominal voltage - Series JS @ 25°C	10 ms max			
Contact make bounce at nominal voltage @ 25°C	1 ms max			
Contact release break bounce at nominal voltage @ 25°C	0.1 ms max			
Weight maximum	0.1lbs			

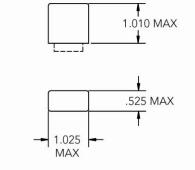
Unless otherwise noted, the specified temperature range applies to all relay characteristics.



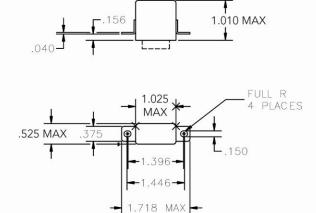
### **MOUNTING STYLES**

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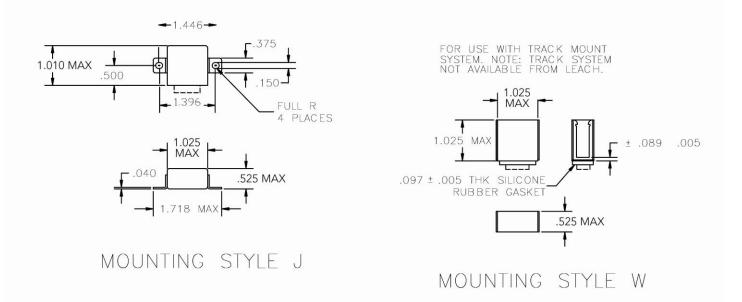
Dimensions in inches Tolerances, unless otherwise specified, ± 0.03 in



MOUNTING STYLE A



MOUNTING STYLE D

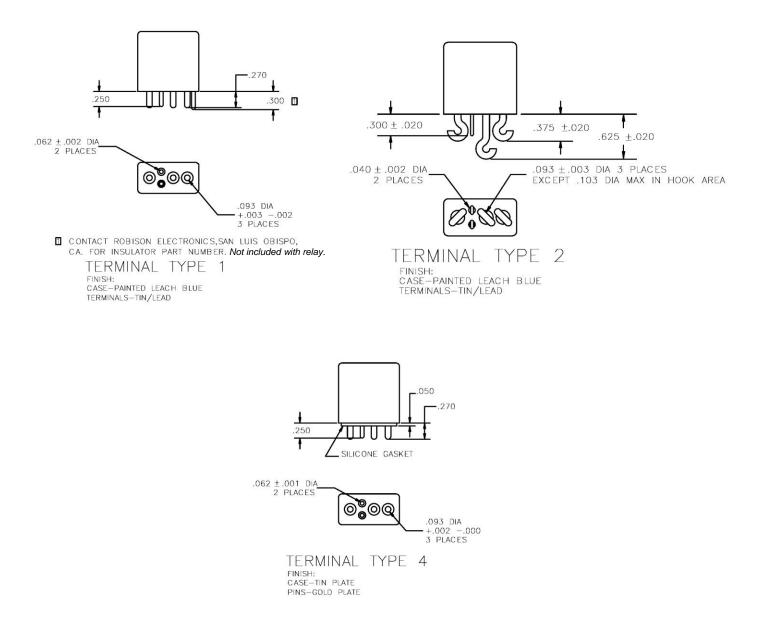




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Dimensions in inches Tolerances, unless otherwise specified,  $\pm\,0.03$  in

#### **TERMINAL TYPES**

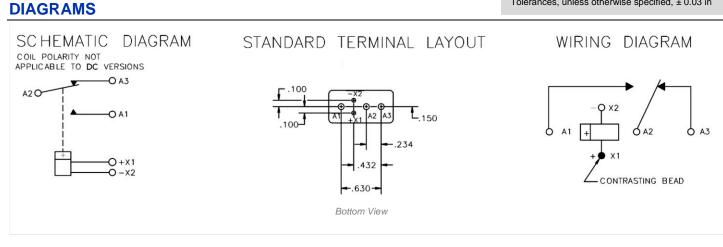




# JS SERIES RELAY – NONLATCH 1PDT, 10 AMP

XXX

Dimensions in inches Tolerances, unless otherwise specified,  $\pm 0.03$  in



JS

D

1

А

STANDARD TOLERANCE: .xx= ±.010 [1] COIL POLARITY NOT APPLICABLE TO AC VERSIONS.

#### NUMBERING SYSTEM

#### **Basic series designation**

- 1. Mounting styles (A, D, E, G, J)
- **2.** Terminal types (1, 2, 4,)
- 3. Coil voltage, see coil characteristics (A, B, C, M, N, R, V)
- 4. XXX Designators

Example : JS-D1A-XXX JS-D1A (Commercial) JS-D2A-300 L (MIL) JS-D1A-123 (Customer Part)

#### **NOTES**

- 1. Standard Intermediate current test applicable.
- 2. 500 Vrms with silicone gasket compressed, 350 Vrms all other conditions.
- 3. Applicable military specification MIL-PRF-83536/36
- 4. "N," "R" & "V" coils have back EMF suppression to 42 volts maximum.
- 5. Relay will not operate, but will not be damaged by application of reverse polarity to coil.

For any inquiries, please contact your local Esterline Power Systems representative <u>http://www.esterline.com/powersystems/Contact/TheAmericas.aspx</u>