



## Features

- JWD has dual in-line package (DIP) configuration. (14-pin DIP)
- JWS has single in-line package (SIP) configuration.
- Low cost, dry reed reliability with various contact arrangements.
- Wave solderable and immersion cleanable.
- Optional coil suppression diode.

## Contact Data @ 25°C

**Arrangements:** 1 Form A (SPST - NO) on JWD & JWS. 1 Form B (SPST - NC), 1 Form C (SPDT) and 2 Form A (DPST-NO) on JWD only.

**Material:** Ruthenium.

**Expected Mechanical Life:** 100 million operations.

**Expected Electrical Life:**

	Resistive Load	End of Life Criteria	No. of Operations
Forms A & B	20VDC, 500mA	500mV Loss	$1 \times 10^6$
	20VDC, 250mA	500mV Loss	$20 \times 10^6$
	Low Level (5VDC, 1mA)	50 Ohms	$100 \times 10^6$
Form C	12VDC, 500mA	500mV Loss	$1 \times 10^6$
	10VDC, 10mA	50 Ohms	$25 \times 10^6$
	Low Level (5VDC, 1mA)	50 Ohms	$100 \times 10^6$

## Contact Ratings:

**Maximum Switched Voltage:** 100VDC for Forms A & B; 28VDC for Form C.

**Maximum Switched Current:** 500mA for all models.

**Maximum Switched Power:** 10W for Forms A & B; 3W for Form C.

**Initial Contact Resistance:** 200 milliohms, max. at 10mA, 6VDC.

## Initial Dielectric Strength

**Between Open Contacts:** 250VDC for Forms A & B; 175VDC for Form C.  
**Between Contacts and Coil:** 500VDC.

## Initial Insulation resistance

**Between Mutually Insulated Conductors:**  $10^{10}$  ohms at 100VDC.

## Coil Data @ 25°C

See Ordering Information table.

## Operate Data @ 25°C

**Operate Time (Including Bounce)†:** 1.5 ms, max.

**Release Time (Including Bounce)†:** 0.5 ms, max., for Forms A & B;  
3.0 ms, max., for Form C.

† At or from Nominal Coil Voltage.

## Environmental Data

**Temperature Range:** -35°C to +85°C.

**Shock:** 100 g, max., in three planes for 8 ms, 1/2 wave pulse.

**Vibration:** 20 g, max., between 10 and 2,000 Hz.

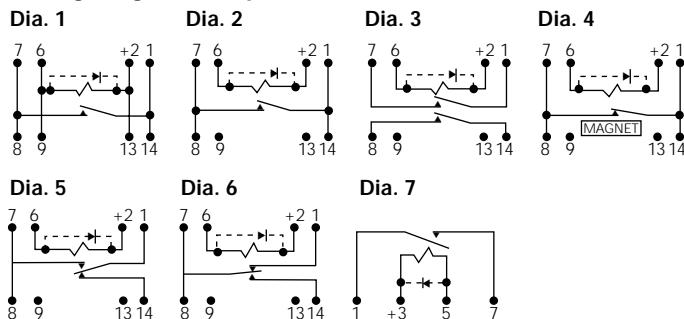
## Mechanical Data

**Termination:** Printed circuit terminals on 0.100" (2.54mm) grid centers.

**Enclosure Type:** Black molded epoxy package.

**Weight:** 0.08 oz. (2.3g) approximately.

## Wiring Diagrams (Top Views)



**Note:** Terminal numbers are for reference only and do not appear on relays.

Users should thoroughly review the technical data before selecting a product part number. It is recommended that users also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.

Dimensions are shown for reference purposes only.

Dimensions are in inches over (millimeters) unless otherwise specified.

## JWD/JWS series

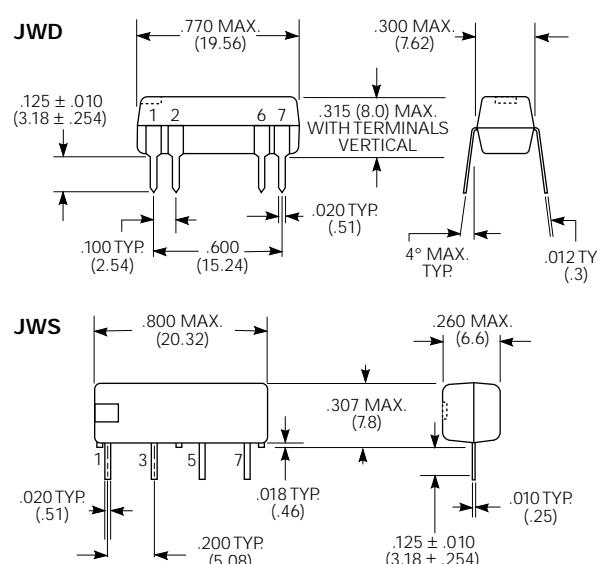
### Dual In-Line Package & Single In-Line Package Dry Reed Relays

**File E29244** **File LR81479**

**Ordering Information – Boldface items are more likely to be stocked.**

Relay Part No.	Diode	Nom. Volt-age (VDC)	Resis-tance $\pm 10\%$ (Ohms)	Must Operate Voltage (VDC)	Must Release Voltage (VDC)	Max. Volt-age (VDC)	Nom. Coil Power (mW)	Wiring Dia. No.
<b>JWD (DIP units) with 1 Form A (SPST-NO) contacts rated 10W max.</b>								
<b>JWD-107-1</b>	No	5/6	500	3.8	0.5	19	50/72	1
<b>JWD-107-5</b>	Yes	5/6	500	3.8	0.5	19	50/72	1
<b>JWD-107-3</b>	No	12	1,200	9.6	1.0	19	120	1
<b>JWD-107-7</b>	Yes	12	1,200	9.6	1.0	19	120	1
<b>JWD-171-5</b>	No	24	2,150	19.2	2.0	40	268	2
<b>JWD-171-10</b>	Yes	24	2,150	19.2	2.0	40	268	2
<b>JWD (DIP units) with 2 Form A (DPST-NO) contacts rated 10W max.</b>								
<b>JWD-171-21</b>	No	5/6	200	3.8	0.5	14	125/180	3
<b>JWD-171-25</b>	Yes	5/6	200	3.8	0.5	14	125/180	3
<b>JWD-171-23</b>	No	12	500	9.6	1.0	19	288	3
<b>JWD-171-27</b>	Yes	12	500	9.6	1.0	19	288	3
<b>JWD-171-24</b>	No	24	2,200	19.2	2.0	40	262	3
<b>JWD-171-28</b>	Yes	24	2,200	19.2	2.0	40	262	3
<b>JWD (DIP units) with 1 Form B (SPST-NC) contacts rated 10W max.</b>								
<b>JWD-171-12</b>	No	5/6	500	3.8	0.5	7	50/72	4
<b>JWD-171-17</b>	Yes	5/6	500	3.8	0.5	7	50/72	4
<b>JWD-171-14</b>	No	12	1,200	9.6	1.0	16	120	4
<b>JWD-171-19</b>	Yes	12	1,200	9.6	1.0	16	120	4
<b>JWD-171-15</b>	No	24	2,200	19.2	2.0	40	262	4
<b>JWD-171-20</b>	Yes	24	2,200	19.2	2.0	40	262	4
<b>JWD (DIP units) with 1 Form C (SPDT) contacts rated 3W max.</b>								
<b>JWD-172-1</b>	No	5/6	200	3.8	0.5	12	125/180	5
<b>JWD-172-5</b>	Yes	5/6	200	3.8	0.5	12	125/180	5
<b>JWD-172-3</b>	No	12	500	9.6	1.0	19	288	5
<b>JWD-172-7</b>	Yes	12	500	9.6	1.0	19	288	5
<b>JWD-172-4</b>	No	24	2,200	19.2	2.0	38	262	5
<b>JWD-172-8</b>	Yes	24	2,200	19.2	2.0	38	262	5
<b>JWD-172-155</b>	No	5/6	200	3.8	0.5	12	125/180	6
<b>JWD-172-159</b>	Yes	5/6	200	3.8	0.5	12	125/180	6
<b>JWD-172-157</b>	No	12	1,000	9.6	1.0	19	144	6
<b>JWD-172-161</b>	Yes	12	1,000	9.6	1.0	19	144	6
<b>JWD-172-158</b>	No	24	2,150	19.2	2.0	38	268	6
<b>JWD-172-162</b>	Yes	24	2,150	19.2	2.0	38	268	6
<b>JWS (SIP units) with 1 Form A (SPST-NO) contacts rated 10W max.</b>								
<b>JWS-117-1</b>	No	5	500	3.8	0.5	16	50	7
<b>JWS-117-6</b>	Yes	5	500	3.8	0.5	16	50	7
<b>JWS-117-3</b>	No	12	530	9.6	1.0	19	272	7
<b>JWS-117-8</b>	Yes	12	530	9.6	1.0	19	272	7
<b>JWS-117-13</b>	No	12	1,850	9.6	1.0	30	78	7
<b>JWS-117-18</b>	Yes	12	1,850	9.6	1.0	30	78	7
<b>JWS-117-5</b>	No	24	2,150	19.2	2.0	36	268	7
<b>JWS-117-10</b>	Yes	24	2,150	19.2	2.0	36	268	7

## Outline Dimensions



**Note:** Magnetic shielding may be required between relays when they are placed in very close proximity to one another.

Dimensions are shown for reference purposes only.

Dimensions are in inches over (millimeters) unless otherwise specified.

Specifications and availability subject to change.

www.tycoelectronics.com  
Technical support:  
Refer to inside back cover.