



JWD/JWS series

DUAL IN-LINE PACKAGE & SINGLE IN-LINE PACKAGE

DRY REED RELAYS

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 x 10 ⁶
	20VDC, 250mA	500mV Loss	20 x 10 ⁶
	Low Level (5VDC, 1mA)	50 Ohms	100 x 10 ⁶
Form C	12VDC, 500mA	500mV Loss	1 x 10 ⁶
	10VDC, 10mA	50 Ohms	25 x 10 ⁶
	Low Level (5VDC, 1mA)	50 Ohms	100 x 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: 10¹⁰ 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

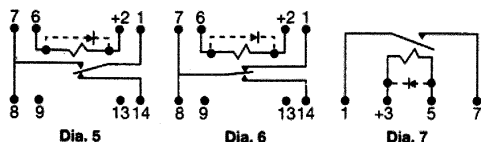
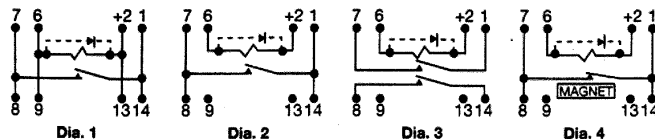
Termination: Printed circuit terminals on 0.100" (2.54 mm) grid centers.

Enclosure Type: Black molded epoxy package.

Weight: 0.08 oz. (2.3 g) approximately.

WIRING DIAGRAMS (Top Views)

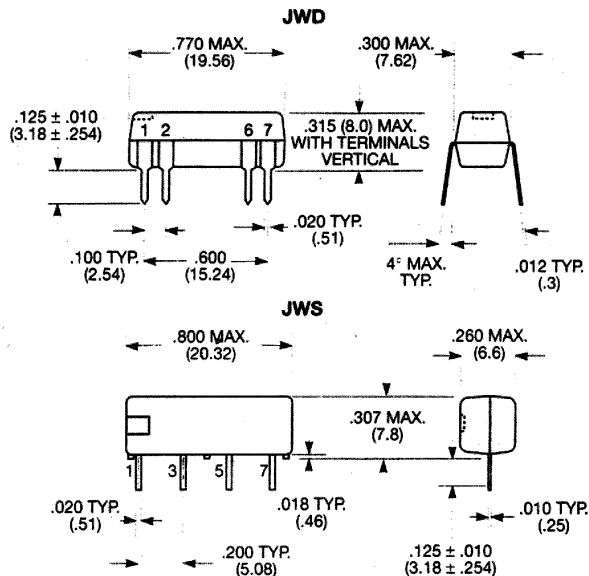
Terminal numbers are for reference only and do not appear on relays.



ORDERING INFORMATION - Boldface items are stocked.

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