

JWD/JWS Series Reed Relays

- 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 molded epoxy package
- Optional coil suppression diode

Typical applications

Telecommunications, measurement and control, automated test equipment, security systems, medical equipment.





| Approvals | |
|---|-----------------------|
| UL E29244, CSA LR81479 | |
| Technical data of approved types on request | |
| | |
| Contact Data | |
| Contact arrangement | |
| JWD and JWS | 1 form A (NO) contact |

| JVVD and JVVJ | r ioitii A (NO) contact | | | | |
|---------------------------------|-------------------------------|--|--|--|--|
| JWD only | 1 form B (NC), 1 form C (CO), | | | | |
| | 2 form A (NO) | | | | |
| Rated voltage | | | | | |
| 1 form A, 1 form B and 2 form A | 20VDC, 500mA | | | | |
| 1 form C (CO) | 10 VDC, 500mA and 10VDC, 10m/ | | | | |
| Max. switching voltage | | | | | |
| 1 form A 1 form P and 2 form A | 100\/DC | | | | |

| 1 101111 0 (00) | TO VDO, SOUTHA AND TOVDO, TOTTA |
|---------------------------------------|---------------------------------|
| Max. switching voltage | |
| 1 form A, 1 form B and 2 form A | 100VDC |
| 1 form C (CO) | 28VDC |
| Rated current | |
| 1 form A, 1 form B and 2 form A | 500mA, 20VDC |
| 1 form C (CO) | 500mA, 10VDC |
| Limiting making current | 500mA |
| Limiting breaking current | 500mA |
| Switching power | |
| form A (NO) and form B (NC) | 10W |
| form C (CO) | 3W |
| Contact material | Ruthenium |
| Min. recommended contact load | 10mV, 10mA |
| Minimum switching voltage | 10mV |
| Initial contact resistance | 200mΩ max. at 10mA, 6VDC |
| Frequency of operation | 100Hz |
| Operate/release time max., incl. boun | ce |
| form A (NO) and form B (NC) | 1.5/0.5ms |
| form C (CO) | 1.5/3.0ms |
| Electrical endurance | |
| form A (NO) and form P (NC) racio | tive lead + 25°C |

| Initial contact resistance | 200mΩ max. at 10mA, 6VDC |
|---------------------------------------|--------------------------------|
| Frequency of operation | 100Hz |
| Operate/release time max., incl. boun | ce |
| form A (NO) and form B (NC) | 1.5/0.5ms |
| form C (CO) | 1.5/3.0ms |
| Electrical endurance | |
| form A (NO) and form B (NC), resis | tive load, +25°C |
| 20VDC, 500mA | 1x10 ⁶ ops. |
| 20VDC, 250mA | 20x10 ⁶ ops. |
| 5VDC, 1mA | 100x10 ⁶ ops. |
| form C (CO) contact, resistive load | , +25°C |
| 10VDC, 500mA | 1x10 ⁶ ops. |
| 10VDC, 250mA | 20x10 ⁶ ops. |
| 5VDC, 1mA | 100x10 ⁶ ops. |
| Contact ratings | |
| 1 form A, 1 form B and 2 form A | 500mA, 20VDC |
| 1 form C (CO) | 500mA, 10VDC |
| Mechanical endurance | 100x10 ⁶ operations |
| | |
| | |

| Coil Data | |
|-------------------------------------|-----------------------|
| Coil voltage range | 5 to 24VDC |
| Min./Max. energization duration | continuous |
| Max. coil temperature | 105° C |
| Thermal resistance | approximately 100°C/W |
| Coil insulation system according UL | class A |

| Insulation Data | | |
|-----------------------------------|------------------------------|--|
| Initial dielectric strength | | |
| between open contacts | | |
| form A (NO) and form B (NC) | 250VDC, | |
| form C (CO) | 175VDC | |
| between contact and coil | 500VDC | |
| between adjacent contacts | | |
| 2 form A (NO) of JWD only | 500VDC | |
| Initial insulation resistance | | |
| between insulated elements | 10 ¹⁰ Ω at 100VDC | |
| Capacitance between open contacts | typ. 0.5pF | |

| Other | Data |
|-------|--------------|
| • | - utu |

| Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content | | | | | |
|--|---|--|--|--|--|
| refer to the P | refer to the Product Compliance Support Center at | | | | |
| www.te.com | www.te.com/customersupport/rohssupportcenter | | | | |
| Ambient temperature | -35°C to +85°C | | | | |
| Category of environmental protection | | | | | |
| IEC 61810 | RTIII -wash tight | | | | |
| Vibration resistance (functional) | 20g, 10 to 2000 Hz | | | | |
| Shock resistance (functional), 3 planes | s, half sine pulse, 8ms | | | | |
| form A (NO) | 100g | | | | |
| form B (NC) and form C (CO) | 50g | | | | |
| Terminal type | PCB-THT | | | | |
| Mounting position | any | | | | |
| Weight | approximately 2.3g (0.08 oz.) | | | | |
| Resistance to soldering heat THT | | | | | |
| IEC 60068-2-20, wave solder | max. 260°C/10s | | | | |
| Ultrasonic cleaning | no | | | | |
| Conformal coating | yes | | | | |
| Packaging/unit | tray/50 pcs., | | | | |
| | bundle/250 pcs., | | | | |
| | | | | | |

Datasheets and product specification

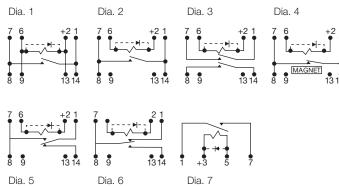
box/500 pcs.



JWD/JWS Series Reed Relays (Continued)

Terminal assignment

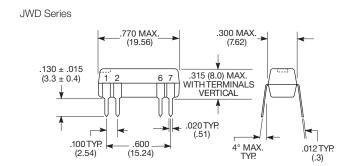
TOP view on component side of PCB



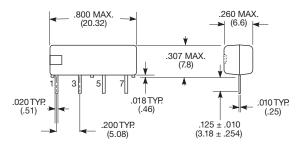
Note: Terminal numbers are for reference only and do not appear on relays.

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

Dimensions



JWS Series



| Product code | Contacts | Max. rating | Diode | Coil voltage | Coil resistance ¹⁾ | Operate voltage | Coil power | Wiring diagram | Part number |
|--------------|---------------|----------------|-------|-----------------|-------------------------------|-----------------|---------------|----------------|-------------|
| JWD-107-1 | 1 form A, | 10W | No | 5/6VDC | 500ohm | 3.8VDC | 50/72mW | 1 | 1393771-3 |
| JWD-107-5 | 1 NO contact | | Yes | 5/6VDC | 500ohm | 3.8VDC | 50/72mW | 1 | 1393771-5 |
| JWD-107-3 | | | No | 12VDC | 1200ohm | 9.6VDC | 120mW | 1 | 1393771-4 |
| JWD-107-7 | | | Yes | 12VDC | 1200ohm | 9.6VDC | 120mW | 1 | 1393771-6 |
| JWD-171-5 | | | No | 24VDC | 2150ohm | 19.2VDC | 268mW | 2 | 2-1393771-0 |
| JWD-171-10 | | | Yes | 24VDC | 2150ohm | 19.2VDC | 268mW | 2 | 1393771-7 |
| JWD-171-21 | 2 form A, | | No | 5/6VDC | 200ohm | 3.8VDC | 125/180mW | 3 | 1-1393771-4 |
| JWD-171-25 | 2 NO contacts | | Yes | 5/6VDC | 200ohm | 3.8VDC | 125/180mW | 3 | 1-1393771-7 |
| JWD-171-23 | | | No | 12VDC | 500ohm | 9.6VDC | 288mW | 3 | 1-1393771-5 |
| JWD-171-27 | | | Yes | 12VDC | 500ohm | 9.6VDC | 288mW | 3 | 1-1393771-8 |
| JWD-171-24 | | | No | 24VDC | 2200ohm | 19.2VDC | 262mW | 3 | 1-1393771-6 |
| JWD-171-28 | | | Yes | 24VDC | 2200ohm | 19.2VDC | 262mW | 3 | 1-1393771-9 |
| JWD-171-12 | 1 form B, | | No | 5/6VDC | 500ohm | 3.8VDC | 50/72mW | 4 | 1393771-8 |
| JWD-171-17 | 1 NCO contact | | Yes | 5/6VDC | 500ohm | 3.8VDC | 50/72mW | 4 | 1-1393771-1 |
| JWD-171-14 | | | No | 12VDC | 1200ohm | 9.6VDC | 120mW | 4 | 1393771-9 |
| JWD-171-19 | | | Yes | 12VDC | 1200ohm | 9.6VDC | 120mW | 4 | 1-1393771-2 |
| JWD-171-15 | | | No | 24VDC | 2200ohm | 19.2VDC | 262mW | 4 | 1-1393771-0 |
| JWD-171-20 | | | Yes | 24VDC | 2200ohm | 19.2VDC | 262mW | 4 | 1-1393771-3 |
| JWD-172-1 | 1 form C, | 3W | No | 5/6VDC | 200ohm | 3.8VDC | 125/180mW | 5 | 2-1393771-1 |
| JWD-172-5 | 1 CO contact | | Yes | 5/6VDC | 200ohm | 3.8VDC | 125/180mW | 5 | 2-1393771-9 |
| JWD-172-3 | | | No | 12VDC | 500ohm | 9.6VDC | 288mW | 5 | 2-1393771-7 |
| JWD-172-7 | | | Yes | 12VDC | 500ohm | 9.6VDC | 288mW | 5 | 3-1393771-0 |
| JWD-172-4 | | | No | 24VDC | 2200ohm | 19.2VDC | 262mW | 5 | 2-1393771-8 |
| JWD-172-8 | | | Yes | 24VDC | 2200ohm | 19.2VDC | 262mW | 5 | 3-1393771-1 |
| JWD-172-155 | | | No | 5/6VDC | 200ohm | 3.8VDC | 125/180mW | 6 | 2-1393771-2 |
| JWD-172-159 | | | Yes | 5/6VDC | 200ohm | 3.8VDC | 125/180mW | 6 | 2-1393771-4 |
| JWD-172-161 | | | Yes | 12VDC | 1000ohm | 9.6VDC | 144mW | 6 | 2-1393771-5 |
| JWD-172-158 | | | No | 24VDC | 2150ohm | 19.2VDC | 268mW | 6 | 2-1393771-3 |
| JWD-172-162 | | | Yes | 24VDC | 2150ohm | 19.2VDC | 268mW | 6 | 2-1393771-6 |
| JWS-117-1 | 1 form A, | 10W | No | 5VDC | 500ohm | 3.8VDC | 50mW | 7 | 3-1393771-2 |
| JWS-117-6 | 1 NO contact | | Yes | 5VDC | 500ohm | 3.8VDC | 50mW | 7 | 3-1393771-8 |
| JWS-117-3 | | | No | 12VDC | 530ohm | 9.6VDC | 272mW | 7 | 3-1393771-4 |
| JWS-117-8 | | | Yes | 12VDC | 530ohm | 9.6VDC | 272mW | 7 | 3-1393771-6 |
| JWS-117-18 | | | Yes | 12VDC | 1850ohm | 9.6VDC | 78mW | 7 | 3-1393771-3 |
| JWS-117-5 | | | No | 24VDC | 2150ohm | 19.2VDC | 268mW | 7 | 3-1393771-5 |

¹⁾ Coil resistance ±10%.

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