

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	1 form A (NO) contact
JWD and JWS	1 form B (NC), 1 form C (CO),
JWD only	2 form A (NO)
Rated voltage	20VDC, 500mA
1 form A, 1 form B and 2 form A	10 VDC, 500mA and 10VDC, 10mA
1 form C (CO)	
Max. switching voltage	100VDC
1 form A, 1 form B and 2 form A	28VDC
1 form C (CO)	
Rated current	500mA, 20VDC
1 form A, 1 form B and 2 form A	500mA, 10VDC
1 form C (CO)	
Limiting making current	500mA
Limiting breaking current	500mA
Switching power	10W
form A (NO) and form B (NC)	3W
form C (CO)	
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. bounce	1.5/0.5ms
form A (NO) and form B (NC)	1.5/3.0ms
form C (CO)	
Electrical endurance	1x10 ⁶ ops.
form A (NO) and form B (NC), resistive load, +25°C	20x10 ⁶ ops.
20VDC, 500mA	100x10 ⁶ ops.
20VDC, 250mA	
5VDC, 1mA	
form C (CO) contact, resistive load, +25°C	1x10 ⁶ ops.
10VDC, 500mA	20x10 ⁶ ops.
10VDC, 250mA	
5VDC, 1mA	
Contact ratings	500mA, 20VDC
1 form A, 1 form B and 2 form A	500mA, 10VDC
1 form C (CO)	
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	250VDC,
between open contacts	175VDC
form A (NO) and form B (NC)	500VDC
form C (CO)	
between contact and coil	
between adjacent contacts	
2 form A (NO) of JWD only	500VDC
Initial insulation resistance	10 ¹⁰ Ω at 100VDC
between insulated elements	
Capacitance between open contacts	typ. 0.5pF

Other Data

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content	refer to the Product Compliance Support Center at www.te.com/customer-support/rohssupportcenter
Ambient temperature	-35°C to +85°C
Category of environmental protection	RTIII -wash tight
IEC 61810	
Vibration resistance (functional)	20g, 10 to 2000 Hz
Shock resistance (functional), 3 planes, 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	max. 260°C/10s
IEC 60068-2-20, wave solder	
Ultrasonic cleaning	no
Conformal coating	yes
Packaging/unit	tray/50 pcs., bundle/250 pcs., 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

JWD Series



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%.