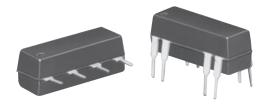


# **JWD/JWS Series Reed Relays**

- 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.



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### Approvals

UL E29244, CSA LR81479 Technical data of approved types on request

## **Contact Data**

Contact Data					
Contact arrangement					
JWD and JWS	1 form 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, 10mA				
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 $\tilde{A}$ (NO) and form B (NC)	10W				
form C (CO)	ЗW				
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. bou	nce				
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), resi	stive load, +25°C				
20VDC, 500mA	1x10 <sup>6</sup> ops.				
20VDC, 250mA	20x10 <sup>6</sup> ops.				
5VDC, 1mA	100x10 <sup>6</sup> ops.				
form C (CO) contact, resistive load	d, +25°C				
10VDC, 500mA	1x10 <sup>6</sup> ops.				
10VDC, 250mA	20x10 <sup>6</sup> ops.				
5VDC, 1mA	100x10 <sup>6</sup> ops.				
Contact ratings					
1 form A, 1 form B and 2 form A	500mA, 20VDC				
1 form C (CO)	500mA, 10VDC				
Mechanical endurance	100x10 <sup>6</sup> operations				
	1				

# 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 <sup>10</sup> Ω at 100VDC	
Capacitance between open contacts	typ. 0.5pF	

#### **Other Data**

Material compliance: EU RoHS/ELV, C	hina RoHS, REACH, Halogen content					
refer to the Product Compliance Support Center a						
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	, 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.,					
	box/500 pcs.					

Datasheets and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.

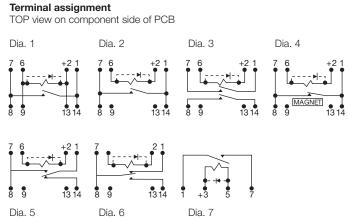
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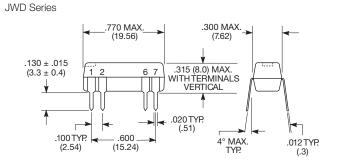


# JWD/JWS Series Reed Relays (Continued)

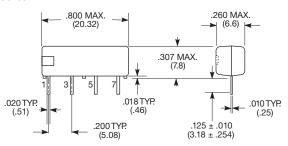


Note: Terminal numbers are for reference only and do not appear on relays.

#### Dimensions



JWS Series



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

Product code	Contacts	Max. rating	Diode	Coil voltage	Coil resistance <sup>1)</sup>	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,	ЗW	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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