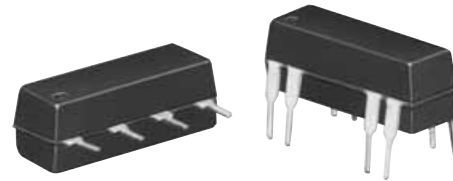


JWD/JWS Series Reed Relays

- 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
	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 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. bounce	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), resistive 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

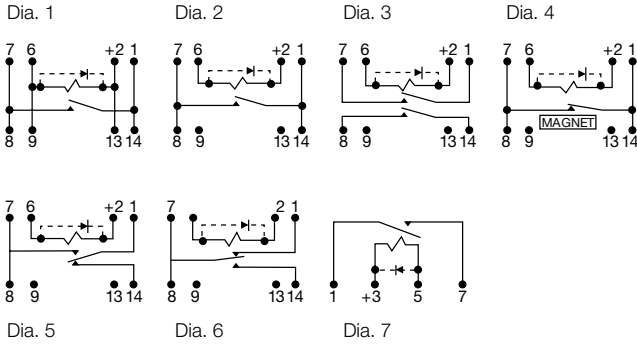
Other Data

Material compliance:	EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.tycoelectronics.com/customersupport/rohssupportcenter	
Ambient temperature	-35°C to +85°C	
Category of environmental protection	IEC 61810	
	RTIII -wwash 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.

JWD/JWS Series Reed Relays (Continued)

Terminal assignment

TOP view on component side of PCB

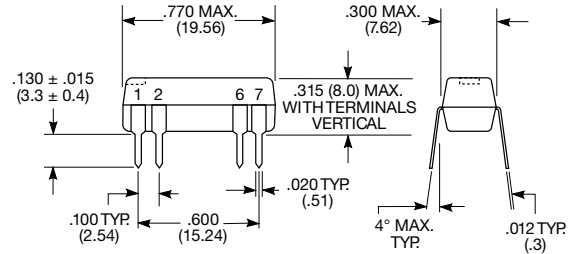


Note: Terminal numbers are for reference only and do not appear on relays.

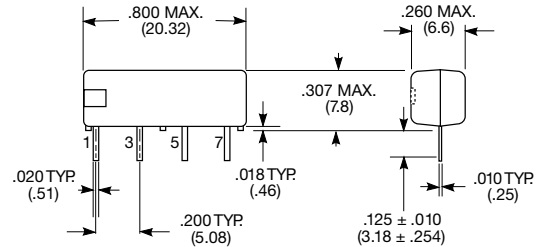
Note: Magnetic shielding may be required between relays when they are placed in very close proximity to one another.

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		3W	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
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%