

**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 <sup>6</sup> ops.
	20VDC, 250mA	20x10 <sup>6</sup> ops.
	5VDC, 1mA	100x10 <sup>6</sup> ops.
	form C (CO) contact, resistive load, +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

**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, China RoHS, REACH, Halogen content	refer to the Product Compliance Support Center at <a href="http://www.tycoelectronics.com/customer-support/rohssupportcenter">www.tycoelectronics.com/customer-support/rohssupportcenter</a>
Ambient temperature	-35°C to +85°C
Category of environmental protection	IEC 61810
Vibration resistance (functional)	RTIII -wwash tight
Shock resistance (functional), 3 planes, half sine pulse, 8ms	20g, 10 to 2000 Hz
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.

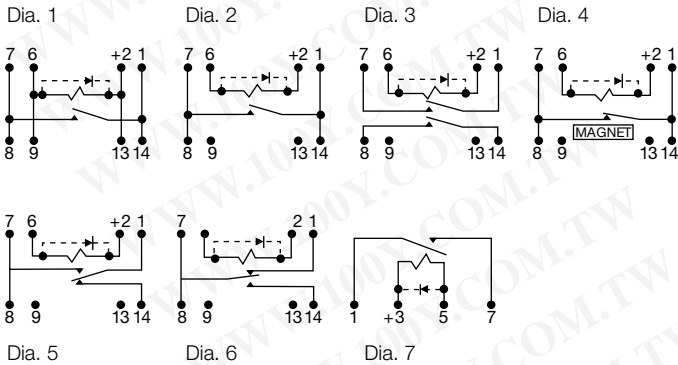
**勝特力材料 886-3-5753170**  
**勝特力电子(上海) 86-21-34970699**  
**勝特力电子(深圳) 86-755-83298787**  
**Http://www.100y.com.tw**

**JWD/JWS Series Reed Relays (Continued)**

勝特力材料 886-3-5753170  
 勝特力电子(上海) 86-21-34970699  
 勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)

**Terminal assignment**

TOP view on component side of PCB

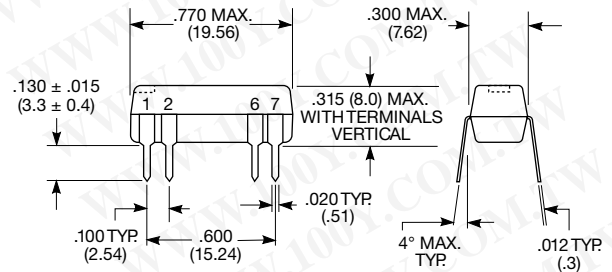


Note: Terminal numbers are for reference only and do not appear on relays.

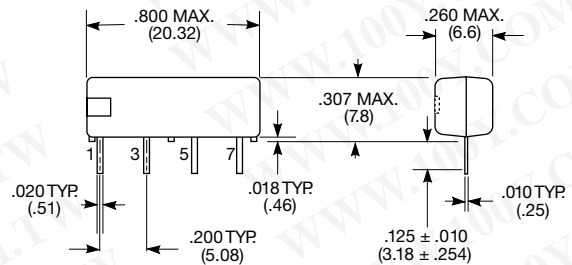
Note: Magnetic shielding may be required between relays when they are placed in very close proximity to one another.

**Dimensions**

JWD Series



JWS Series



Product code	Contacts	Max. rating	Diode	Coil voltage	Coil resistance <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		2 form A, 2 NO contacts	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			No	5/6VDC	200ohm	3.8VDC	125/180mW	3	1-1393771-4	
JWD-171-25			Yes	5/6VDC	200ohm	3.8VDC	125/180mW	3	1-1393771-7	
JWD-171-23		1 form B, 1 NCO contact	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 C, 1 CO contact	No	5/6VDC	500ohm	3.8VDC	50/72mW	4	1393771-8	
JWD-171-17			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		10W	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			No	5/6VDC	200ohm	3.8VDC	125/180mW	5	2-1393771-1	
JWD-172-5			Yes	5/6VDC	200ohm	3.8VDC	125/180mW	5	2-1393771-9	
JWD-172-3		10W	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		10W	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		10W	Yes	24VDC	2150ohm	19.2VDC	268mW	6	2-1393771-6	
JWS-117-1			1 form A, 1 NO contact	No	5VDC	500ohm	3.8VDC	50mW	7	3-1393771-2
JWS-117-6				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		10W	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%