

# REED SWITCH

## ORD2211

Lamp Load

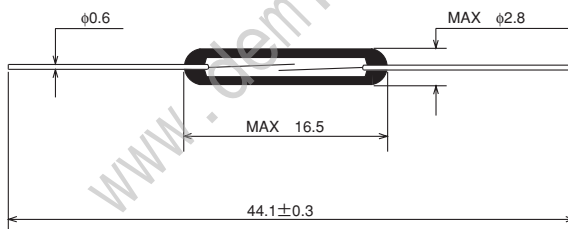
### ■ GENERAL DESCRIPTION

The ORD2211 is a single-contact reed switch designed for direct opening or closing lamps of 12 V - 3.4 W. The contacts are sealed within the glass tube with inert gas to maintain contact reliability.

### ■ FEATURES

- (1) Reed contacts are hermetically sealed within a glass tube with inert gas and do not receive any influence from the external atmospheric environment.
- (2) Quick response
- (3) The structure comprises the operating parts and electrical circuits arranged coaxially. Reed switches are suited to applications in radio frequency operation.
- (4) Reed switches are compact and light weight.
- (5) Superior corrosion resistance and wear resistance of the contacts assures stable switching operation and long life.
- (6) With a permanent magnet installed, reed switches economically and easily become proximity switches.

### ■ EXTERNAL DIMENSIONS (Unit: mm)



### ■ APPLICATIONS

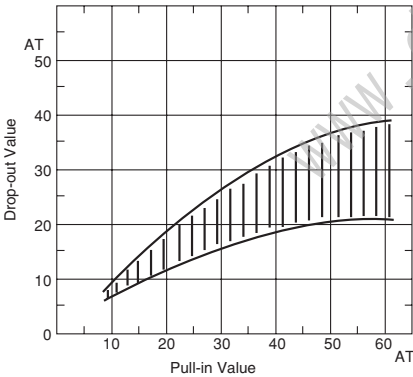
- Automotive electronic devices
- Control equipment
- Communication equipment
- Measurement equipment
- Household appliances

■ ELECTRICAL CHARACTERISTICS

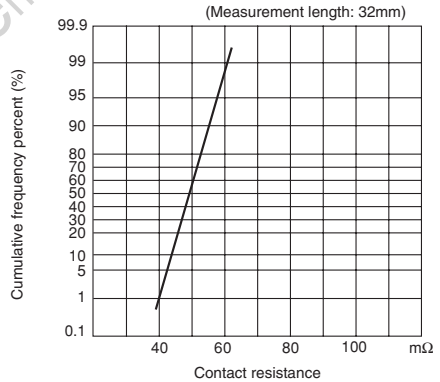
Parameter	Rated value	Unit
Pull-in Value (PI)	20~60	AT
Drop-out Value (DO)	8min	AT
Contact resistance (CR)	100max	mΩ
Breakdown voltage	200min (PI $\geq$ 20)	VDC
Insulation resistance	10 <sup>9</sup> min	Ω
Electrostatic capacitance	0.3max	pF
Contact rating	50 (12V-3.4W lamp)	VA
Maximum switching voltage	100 ( $\frac{DC}{AC}$ )	V
Maximum switching current	0.5 (Inrush 3A)	A
Maximum carry current	2.5	A

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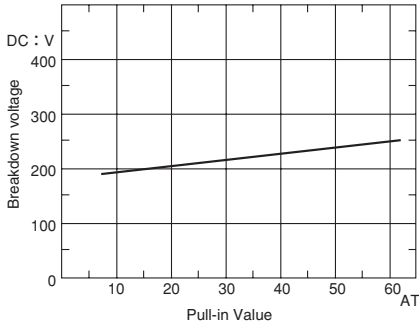
(1) Drop-out Value vs. Pull-in Value



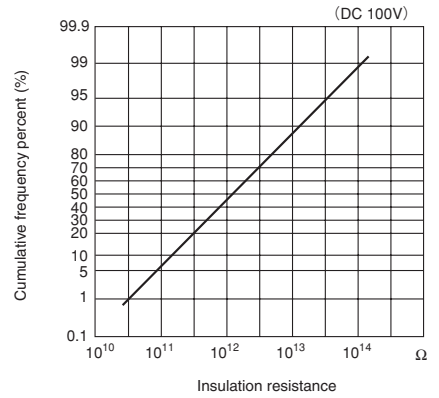
(2) Contact resistance



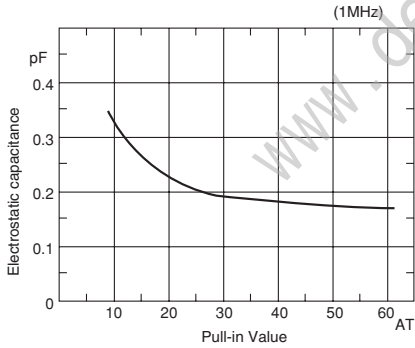
## (3) Breakdown voltage



## (4) Insulation resistance



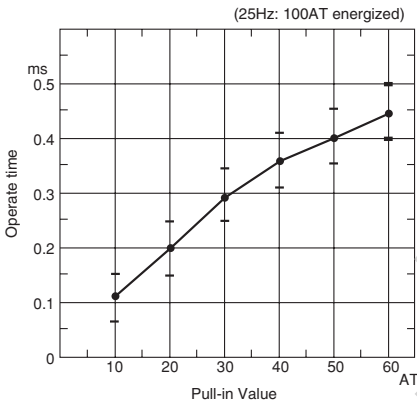
## (5) Electrostatic capacitance



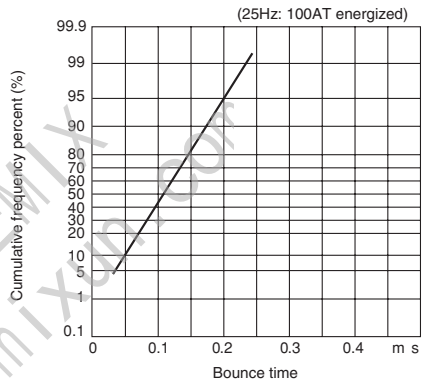
■ OPERATING CHARACTERISTICS

Parameter	Rated value	Unit
Operate time	0.6max	ms
Bounce time	0.4max	ms
Release time	0.05max	ms
Resonant frequency	4600±500	Hz
Maximum operating frequency	500	Hz

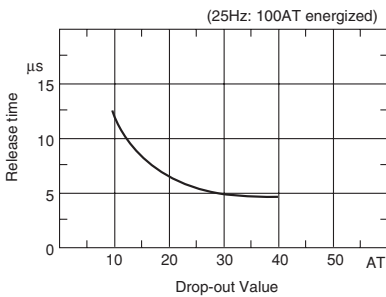
(1) Operate time



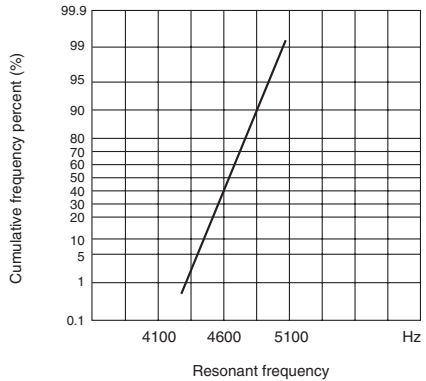
(2) Bounce time



(3) Release time



(4) Resonant frequency

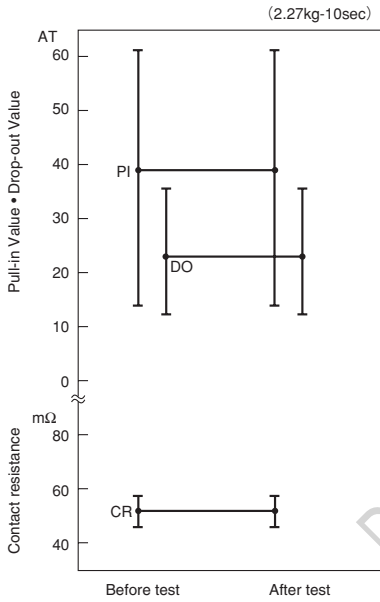


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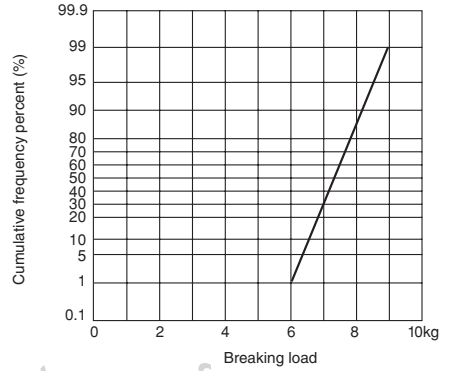
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■ MECHANICAL CHARACTERISTICS

(1) Lead tensile test (static load)



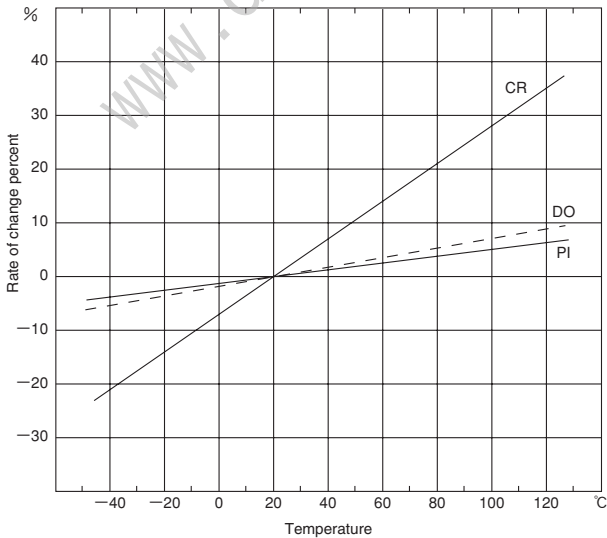
(2) Lead tensile strength



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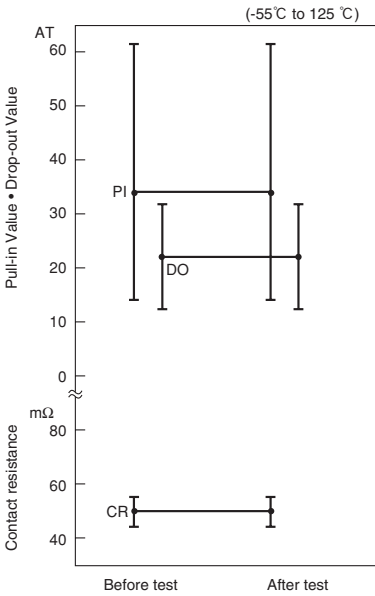
■ ENVIRONMENTAL CHARACTERISTICS

(1) Temperature characteristics

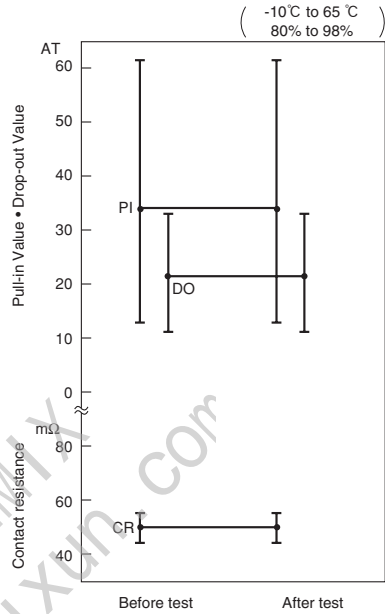


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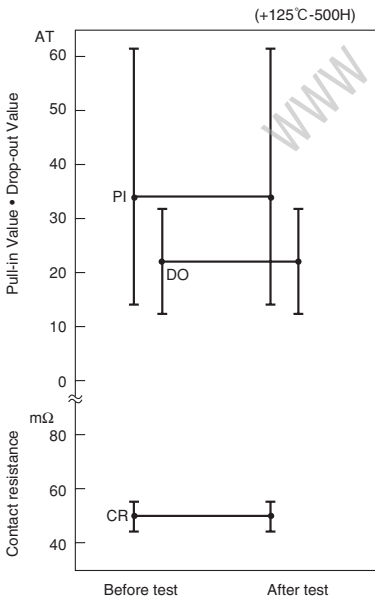
(2) Temperature cycle



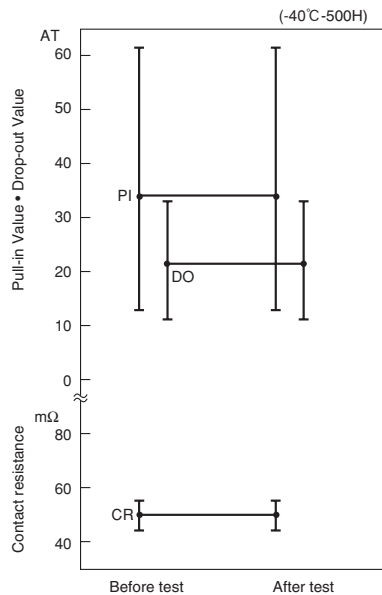
(3) Temperature and humidity cycle



(4) High temperature storage test

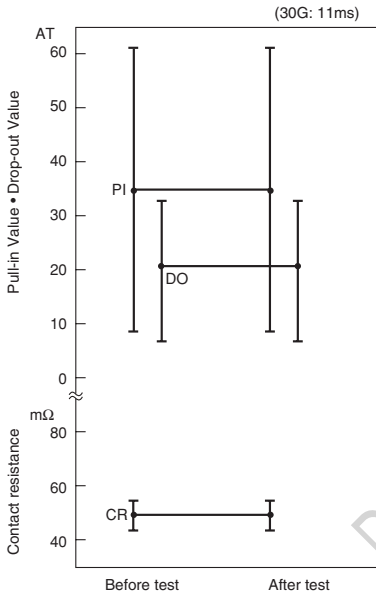


(5) Low temperature storage test

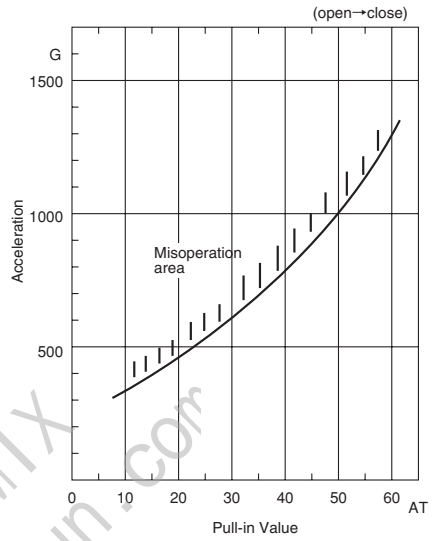


(6) Shock test

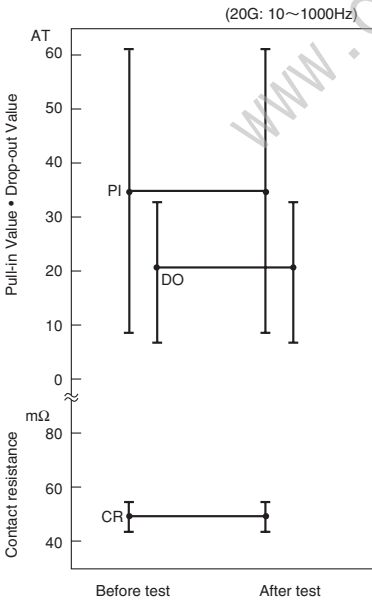
1) Electrical characteristics



2) Misoperation area

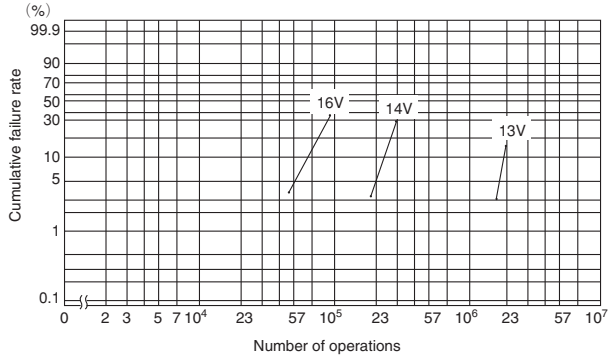


(7) Vibration test

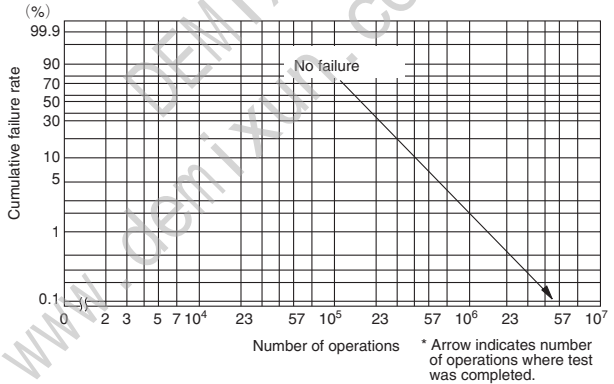


■ LIFE EXPECTANCY DATA: ORD2211

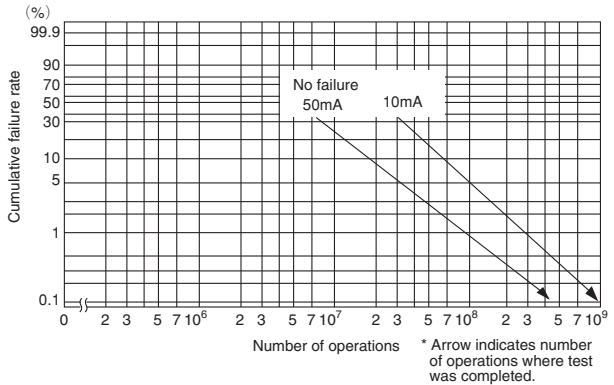
Load conditions  
 Voltage: 13, 14, 16 : VDC  
 Current: 12V-3.4W Lamp



Load conditions  
 Voltage: 50VDC  
 Current: 1A  
 Load: Resistive load



Load conditions  
 Voltage: 6VDC  
 Current: 10mA, 50mA  
 Load: Resistive load



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