

REED SWITCH

ORD2211

Lamp Load

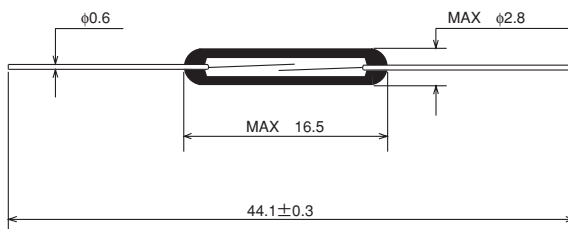
■ GENERAL DESCRIPTION

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

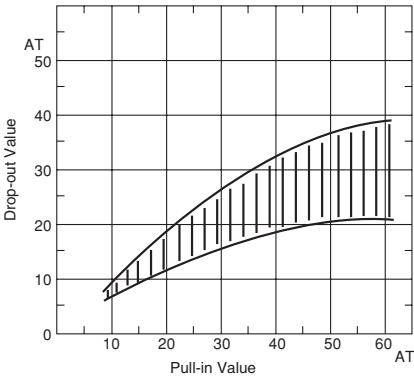
- Automotive electronic devices
- Control equipment
- Communication equipment
- Measurement equipment
- Household appliances

■ ELECTRICAL CHARACTERISTICS

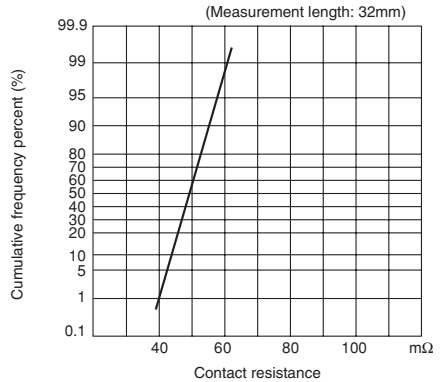
| Parameter | Rated value | Unit |
|---------------------------|-------------------------|------|
| Pull-in Value (PI) | 20~60 | AT |
| Drop-out Value (DO) | 8min | AT |
| Contact resistance (CR) | 100max | mΩ |
| Breakdown voltage | 200min (PI \geq 20) | VDC |
| Insulation resistance | 10 ⁹ min | Ω |
| 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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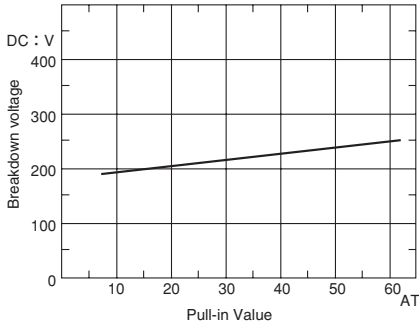
(1) Drop-out Value vs. Pull-in Value



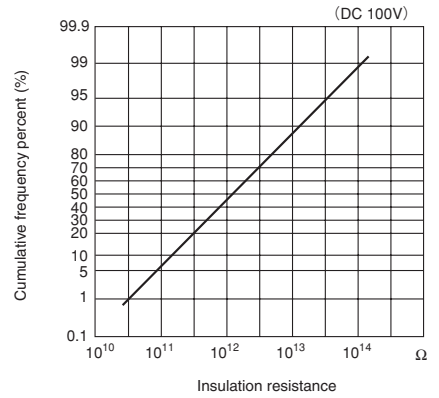
(2) Contact resistance



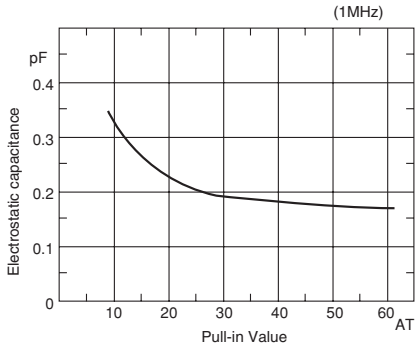
(3) Breakdown voltage



(4) Insulation resistance



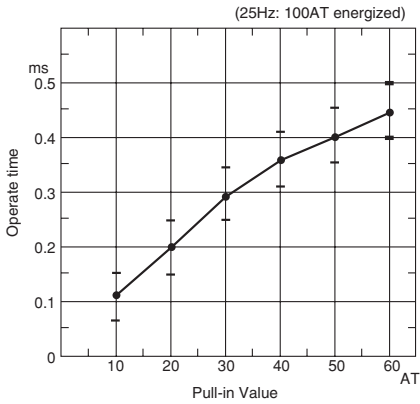
(5) Electrostatic capacitance



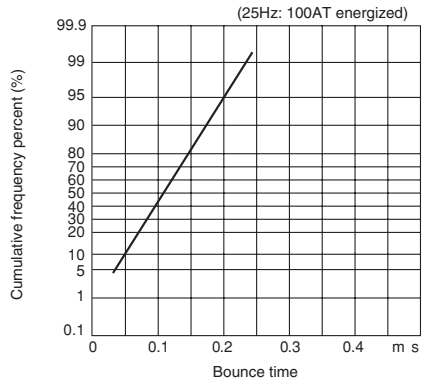
■ OPERATING CHARACTERISTICS

| 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 |

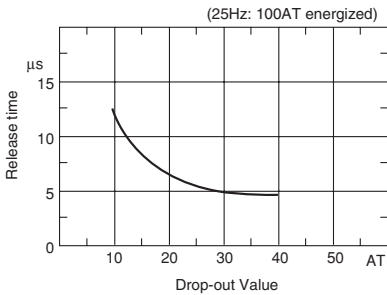
(1) Operate time



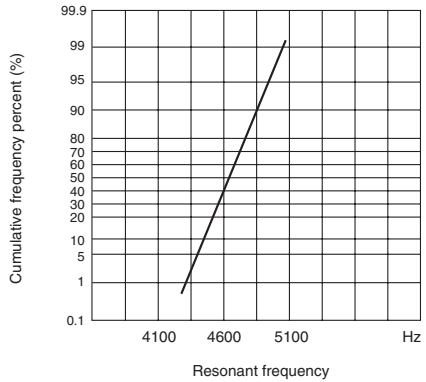
(2) Bounce time



(3) Release time



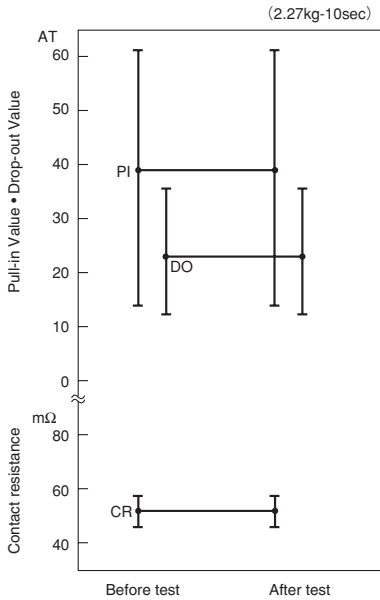
(4) Resonant frequency



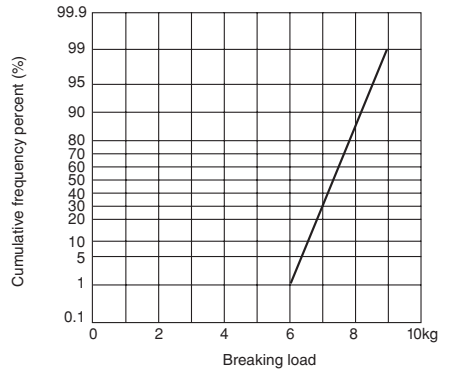
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■ MECHANICAL CHARACTERISTICS

(1) Lead tensile test (static load)



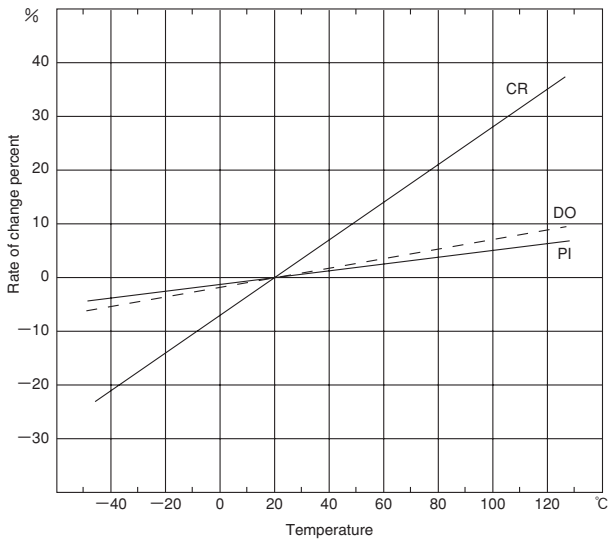
(2) Lead tensile strength



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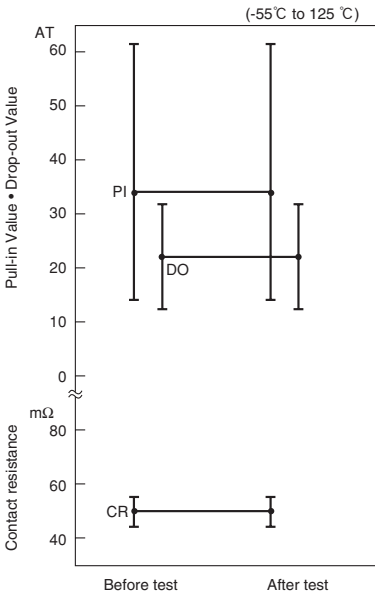
■ ENVIRONMENTAL CHARACTERISTICS

(1) Temperature characteristics

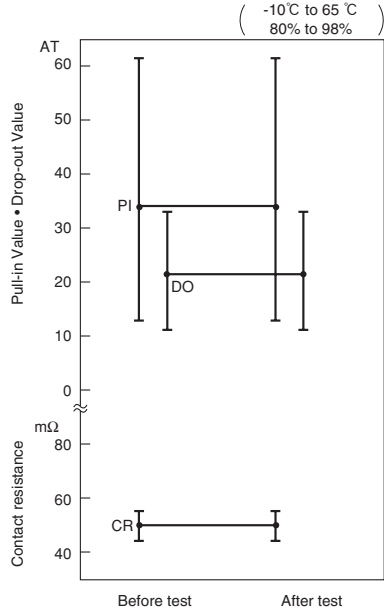


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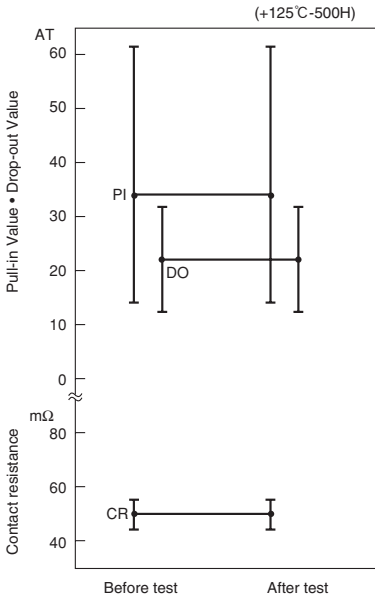
(2) Temperature cycle



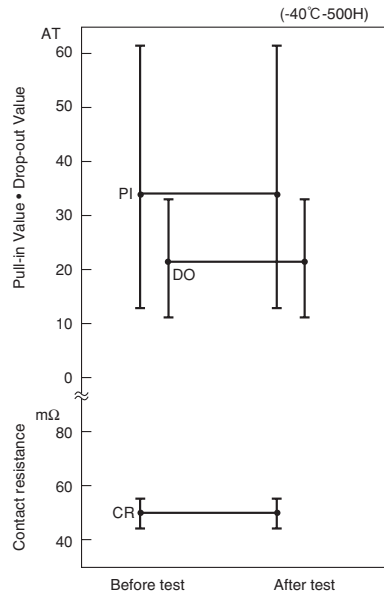
(3) Temperature and humidity cycle



(4) High temperature storage test

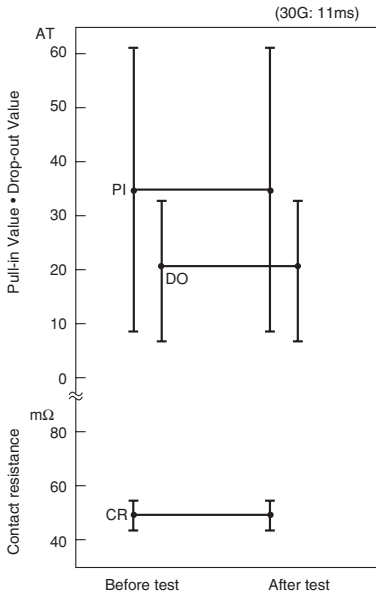


(5) Low temperature storage test

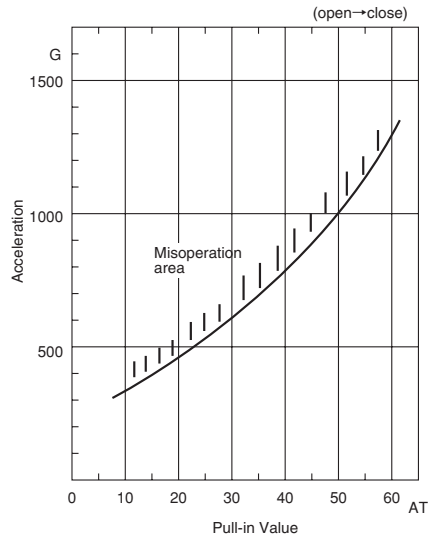


(6) Shock test

1) Electrical characteristics

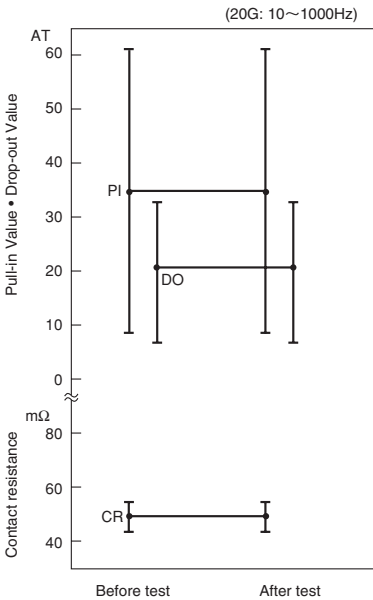


2) Misoperation area



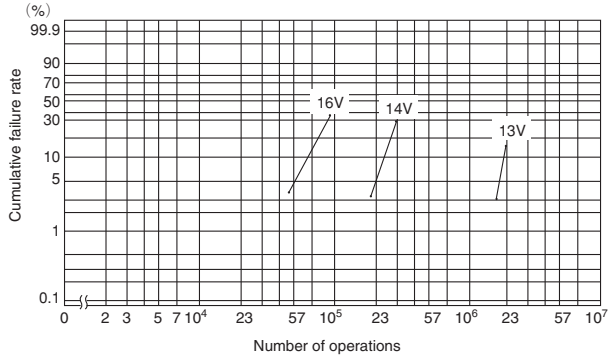
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(7) Vibration test



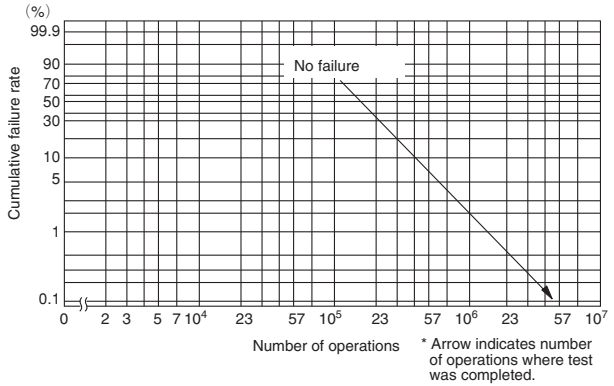
■ LIFE EXPECTANCY DATA: ORD2211

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



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



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

