REED SWITCH

ORD219

Miniature High-performance

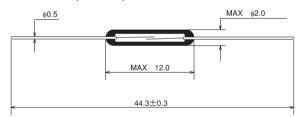
■ GENERAL DESCRIPTION

The ORD219 is a small single-contact reed switch designed for general control of mediumlevel loads less than 100 V. The contacts are sealed within the glass tube with inert gas to maintain contact reliability.

■ FEATURES

- 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)



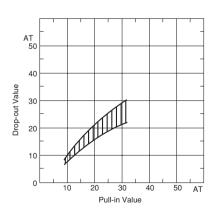
■ APPLICATIONS

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

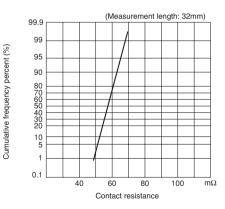
■ ELECTRICAL CHARACTERISTICS

| Parameter | Rated value | Unit |
|---------------------------|-------------------------------------|------|
| Pull-in Value (PI) | 10~30 | AT |
| Drop-out Value (DO) | 5min | AT |
| Contact resistance (CR) | 100max | mΩ |
| Breakdown voltage | 200min | VDC |
| Insulation resistance | 10 ⁹ min | Ω |
| Electrostatic capacitance | 0.3max | pF |
| Contact rating | 10 | VA |
| Maximum switching voltage | 100 (^{DC} _{AC}) | V |
| Maximum switching current | 0.5 | A |
| Maximum carry current | 1.0 | Α |

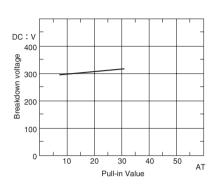
(1) Drop-out Value vs. Pull-in Value



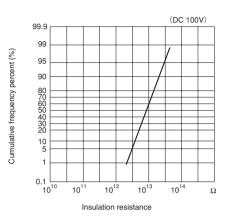
(2) Contact resistance



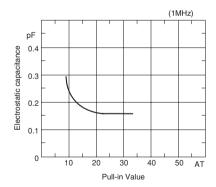
(3) Breakdown voltage



(4) Insulation resistance



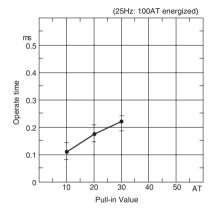
(5) Electrostatic capacitance



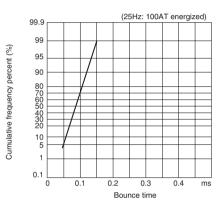
■ OPERATING CHARACTERISTICS

| Parameter | Rated value | Unit |
|-----------------------------|-------------|------|
| Operate time | 0.4max | ms |
| Bounce time | 0.3max | ms |
| Release time | 0.05max | ms |
| Resonant frequency | 5900±400 | Hz |
| Maximum operating frequency | 500 | Hz |

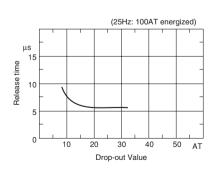
(1) Operate time



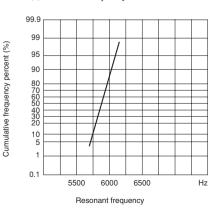
(2) Bounce time



(3) Release time

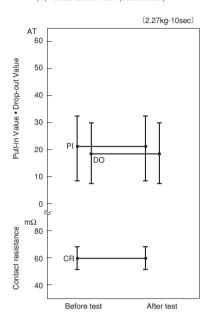


(4) Resonant frequency

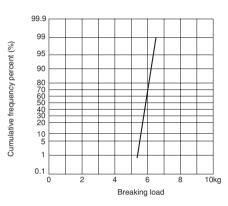


■ MECHANICAL CHARACTERISTICS

(1) Lead tensile test (static load)

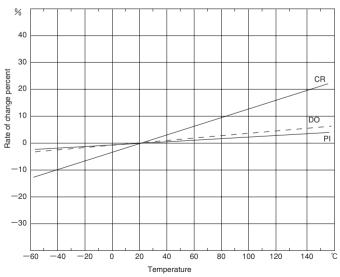


(2) Lead tensile strength

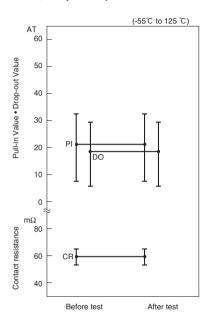


■ ENVIRONMENTAL CHARACTERISTICS

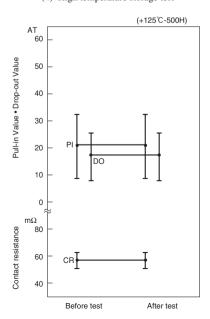
(1) Temperature characteristics



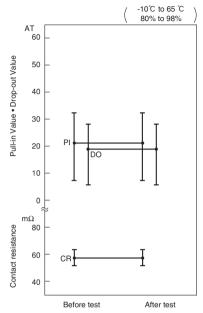
(2) Temperature cycle



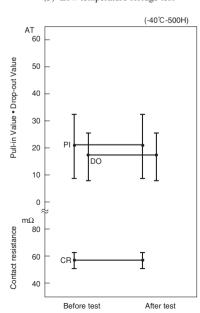
(4) High temperature storage test



(3) Temperature and humidity cycle

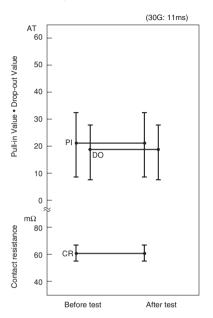


(5) Low temperature storage test

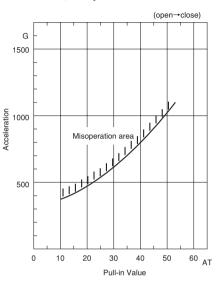


(6) Shock test

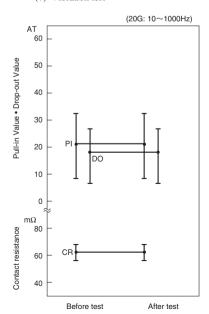
1) Electrical characteristics



2) Misoperation area



(7) Vibration test



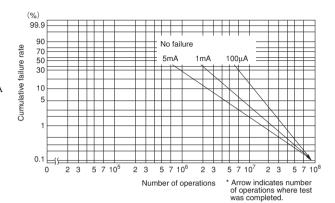
■ LIFE EXPECTANCY DATA: ORD219

Load conditions

Voltage: 5VDC

Current: 100µA, 1mA, 5mA

Load: Resistive load

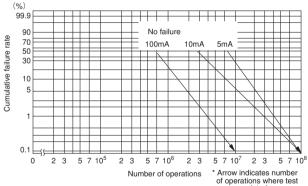


Load conditions

Voltage: 12VDC

Current: 5mA, 10mA, 100mA

Resistive load Load:



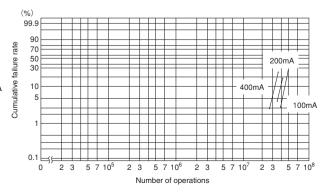
was completed.



Voltage: 24VDC

Current: 100mA, 200mA, 400mA

Load: Resistive load



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