

REED SWITCH

ORT551

Ultraminiature Transfer Type

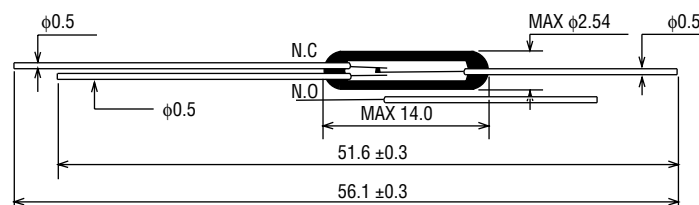
GENERAL DESCRIPTION

The ORT551 is a ultraminiature two-contact reed switch designed for transfer type operation. 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 an operating system and electrical circuits coaxially. Reed switches are suited to applications in radio frequency.
- (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)



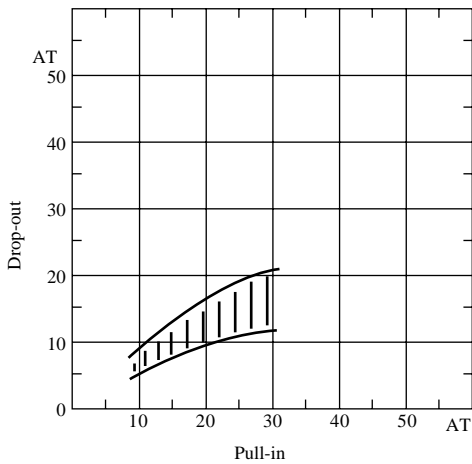
APPLICATIONS OF REED SWITCHES

1. Automotive electronic devices
2. Control equipment
3. Communication equipment
4. Measurement equipment
5. Household appliances

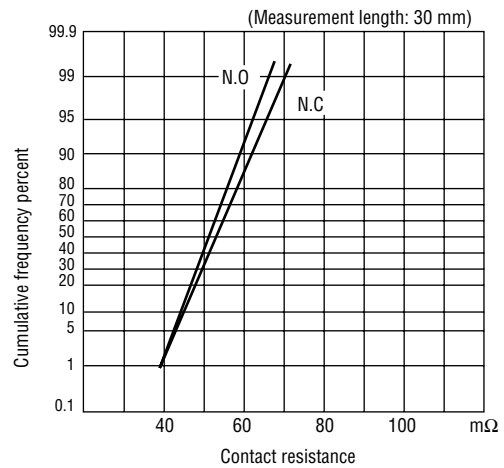
ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Condition	Rated Value			Unit
			Min.	Typ.	Max.	
Pull-in Value	PI	—	10	—	30	AT
Drop-out Value	DO	—	4	—	—	AT
Contact Resistance	CR	—	—	—	100	mΩ
Breakdown Voltage	—	PI>20	200	—	—	VDC
Breakdown Voltage	—	PI<20	150	—	—	VDC
Insulation Resistance	—	—	10 ⁹	—	—	Ω
Electrostatic Capacitance	—	—	—	—	1.5	pF
Contact Rating	—	—	—	—	3	VA
Maximum Switching Voltage	—	—	—	—	30 ^{DC} _{AC}	V
Maximum Switching Current	—	—	—	—	0.2	A
Maximum Carry Current	—	—	—	—	0.5	A

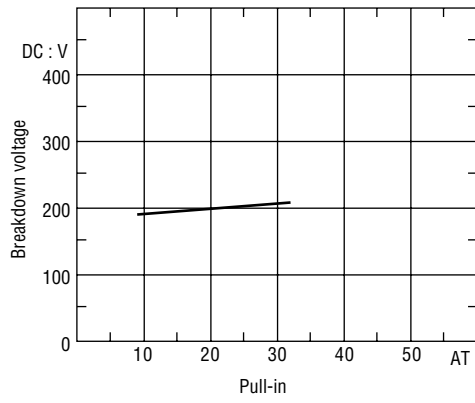
(1) Drop-out vs. Pull-in



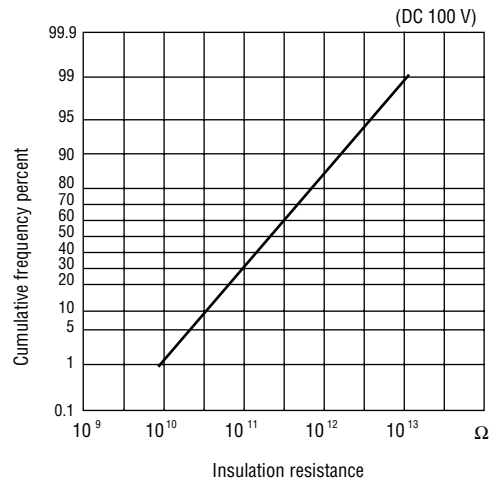
(2) Contact resistance



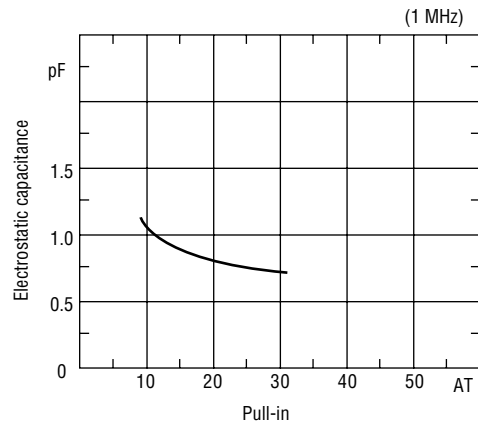
(3) Breakdown voltage



(4) Insulation resistance



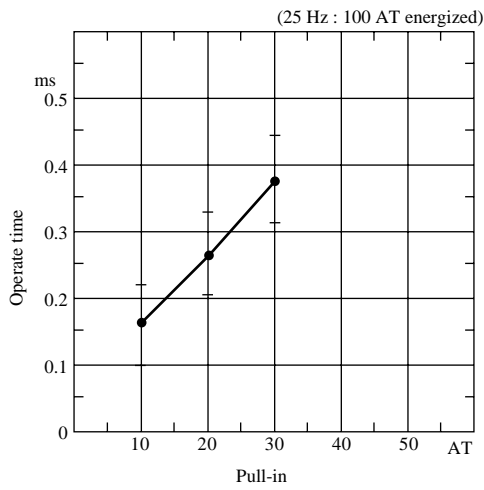
(5) Electrostatic capacitance



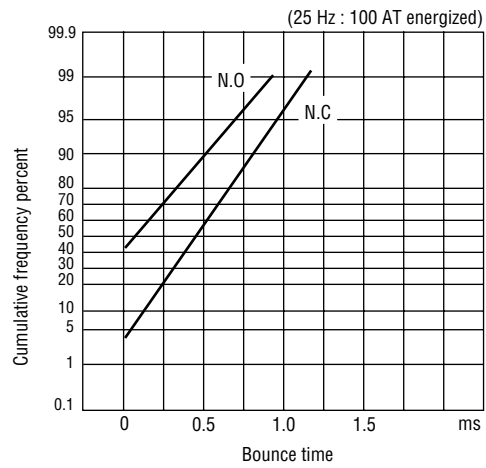
OPERATING CHARACTERISTICS

Parameter	Rated Value			Unit
	Min.	Typ.	Max.	
Operate Time	—	—	1.0	ms
Bounce Time	—	—	N.O 1.0	ms
Bounce Time	—	—	N.C 1.5	ms
Release Time	—	—	0.5	ms
Resonant Frequency	2000	6000	10000	Hz
Maximum Operating Frequency	—	—	200	Hz

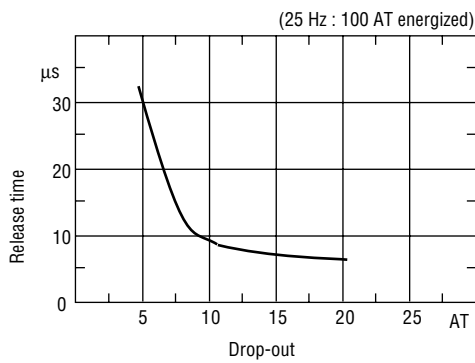
(1) Operate time



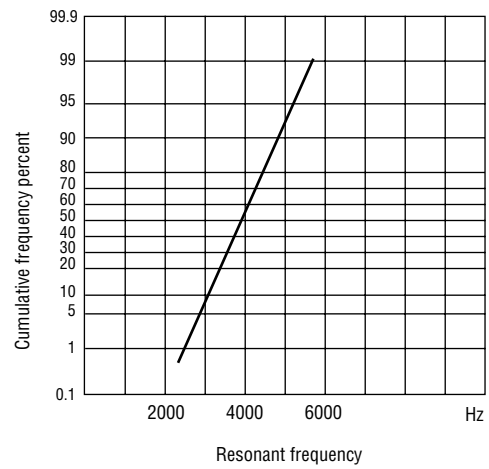
(2) Bounce time



(3) Release time

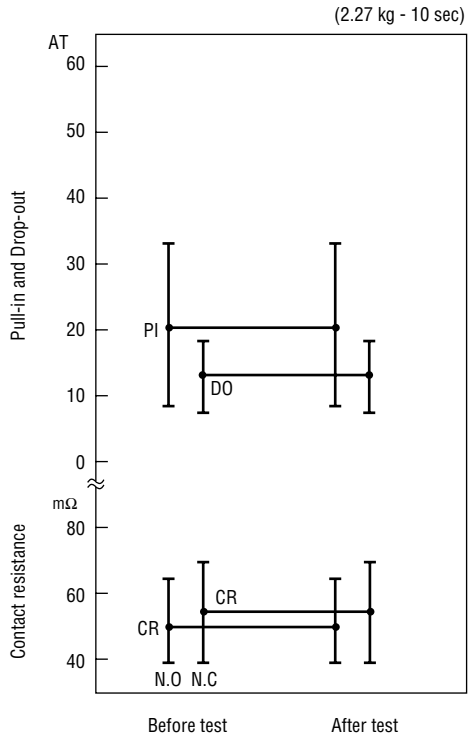


(4) Resonant frequency

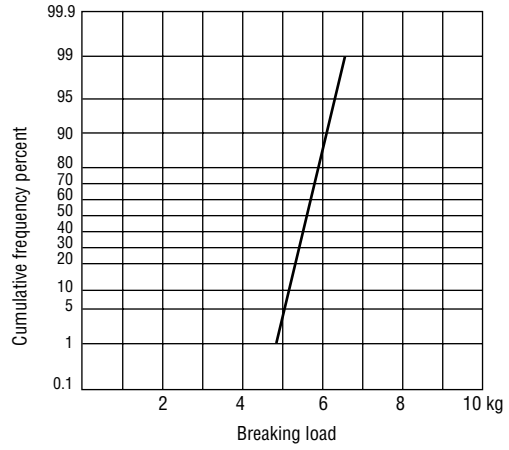


MECHANICAL CHARACTERISTICS

(1) Lead tensile test (static load)

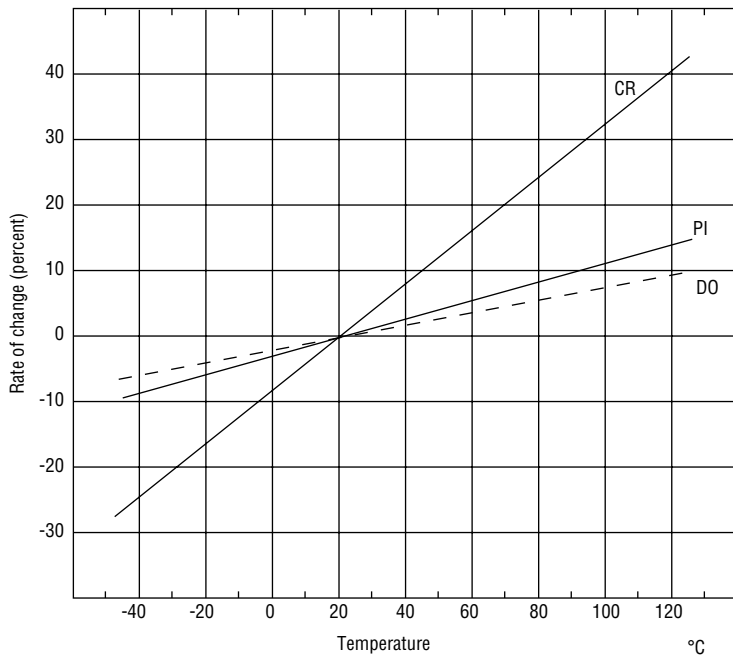


(2) Lead tensile strength

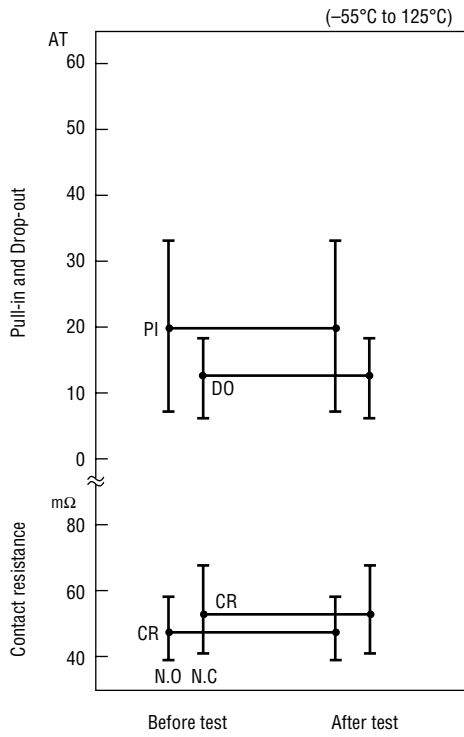


ENVIRONMENTAL CHARACTERISTICS

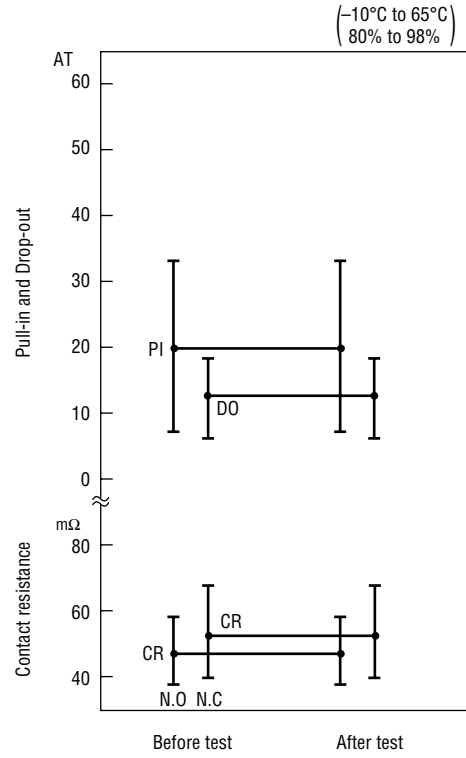
(1) Temperature characteristics



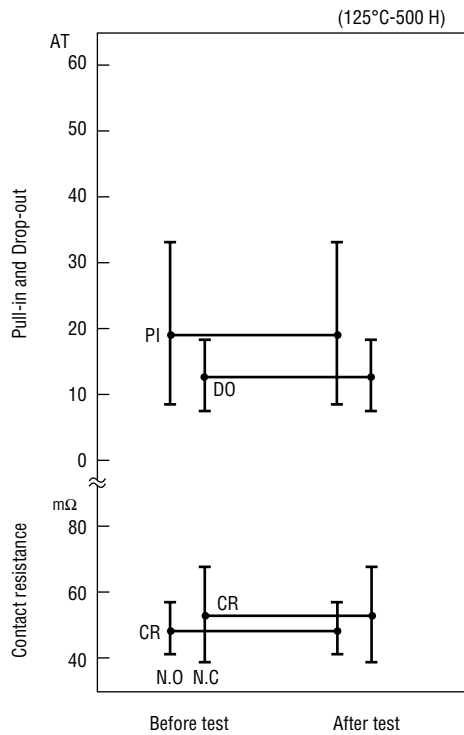
(2) Temperature cycle



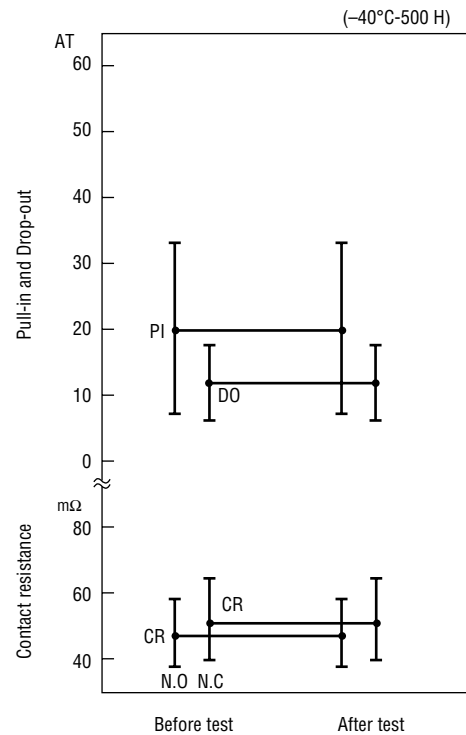
(3) Temperature and humidity cycle



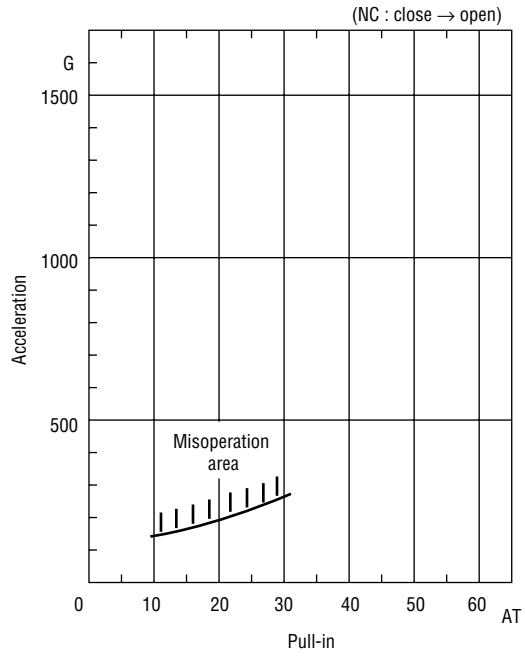
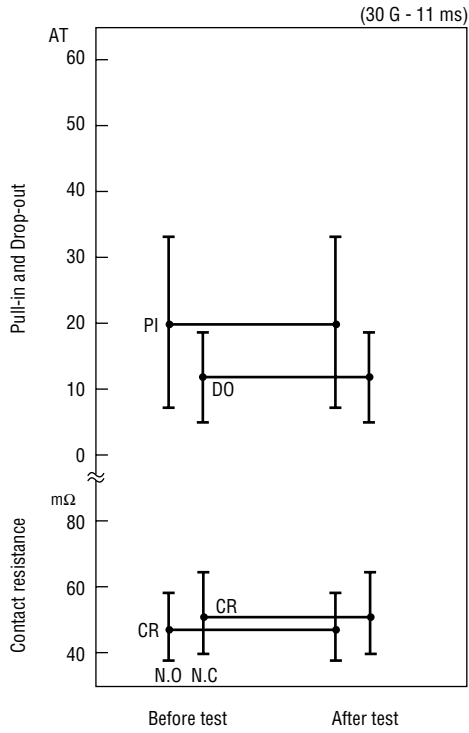
(4) High temperature storage test



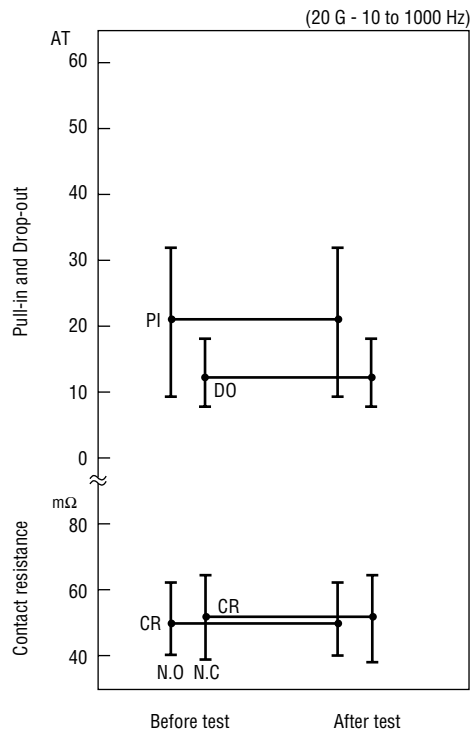
(5) Low temperature storage test



(6) Shock test

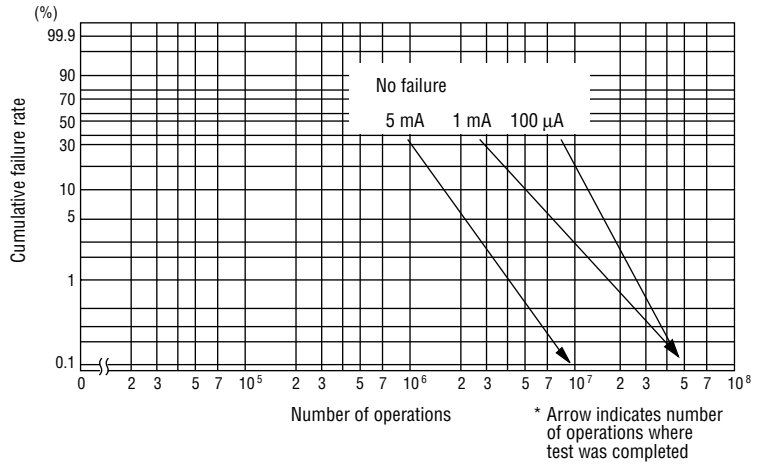


(7) Vibration test

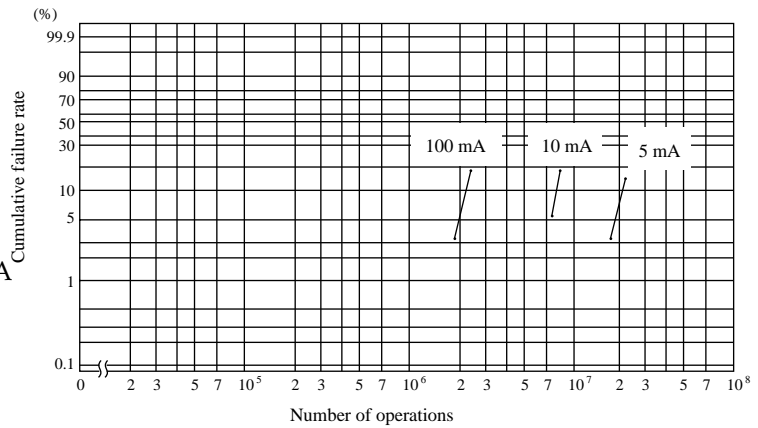


LIFE EXPECTANCY DATA: ORT551

Load conditions
 Voltage : 5 VDC
 Current : 100 μ A, 1 mA, 5 mA
 Load : Resistive load



Load conditions
 Voltage : 12 VDC
 Current : 5 mA, 10 mA, 100 mA
 Load : Resistive load



Load conditions
 Voltage : 24 VDC
 Current : 50 mA, 100 mA
 Load : Resistive load

