





# Snap Action Switch D2F

## Subminiature Snap Action Switch

- Super compact, ideal for PCB mounting
- Switches 3 A loads (general-purpose), 1 A loads (low force general-purpose) and 0.1 A loads (microvoltage/microcurrent)
- Long life span assured by high-precision dual spring reverse-action mechanism
- Flux penetration prevented by using an insert terminal and allowing a height difference at the case bottom
- Ideal for a wide variety of applications from household appliances and office equipment to audio equipment and communications equipment
- RoHS Compliant



## Ordering Information

Actuator	Contact type	Model	Contact OF	Model				
				Terminal type				
				PCB	Self-supporting	Soldered	Right-angle	Left-angle
 Pin plunger	Microvoltage/current	Low force	75 g	D2F-01F	D2F-01F-T	D2F-01F-D	D2F-01F-A	D2F-01F-A1
		Standard	150 g	D2F-01	D2F-01-T	D2F-01-D	D2F-01-A	D2F-01-A1
	General-purpose	Low force	75 g	D2F-F	D2F-F-T	D2F-F-D	D2F-F-A	D2F-F-A1
		Standard	150 g	D2F	D2F-T	D2F-D	D2F-A	D2F-A1
 Hinge lever	Microvoltage/current	Low force	25 g	D2F-01FL	D2F-01FL-T	D2F-01FL-D	D2F-01FL-A	D2F-01FL-A1
		Standard	80 g	D2F-01L	D2F-01L-T	D2F-01L-D	D2F-01L-A	D2F-01L-A1
	General-purpose	Low force	25 g	D2F-FL	D2F-FL-T	D2F-FL-D	D2F-FL-A	D2F-FL-A1
		Standard	80 g	D2F-L	D2F-L-T	D2F-L-D	D2F-L-A	D2F-L-A1
 Simulated roller lever	Microvoltage/current	Low force	40 g	D2F-01FL3	D2F-01FL3-T	D2F-01FL3-D	D2F-01FL3-A	D2F-01FL3-A1
		Standard	80 g	D2F-01L3	D2F-01L3-T	D2F-01L3-D	D2F-01L3-A	D2F-01L3-A1
	General-purpose	Low force	40 g	D2F-FL3	D2F-FL3-T	D2F-FL3-D	D2F-FL3-A	D2F-FL3-A1
		Standard	80 g	D2F-L3	D2F-L3-T	D2F-L3-D	D2F-L3-A	D2F-L3-A1
 Roller lever	Microvoltage/current	Low force	40 g	D2F-01FL2	—	D2F-01FL2-D	D2F-01FL2-A	D2F-01FL2-A1
		Standard	80 g	D2F-01L2	D2F-01L2-T	D2F-01L2-D	D2F-01L2-A	D2F-01L2-A1
	General-purpose	Low force	40 g	D2F-FL2	D2F-FL2-T	D2F-FL2-D	D2F-FL2-A	D2F-FL2-A1
		Standard	80 g	D2F-L2	D2F-L2-T	D2F-L2-D	D2F-L2-A	D2F-L2-A1

# Specifications

## ■ Characteristics

<b>Operating speed</b>		1 to 500 mm/second (0.04 to 19.7 in./second)
<b>Operating frequency</b>	<b>Mechanical</b>	200 operations per minute (pin plunger actuator type)
	<b>Electrical</b>	30 operations per minute (pin plunger actuator type)
<b>Contact resistance</b>	<b>General-purpose type</b>	30 mΩ max. (initial)
	<b>Microvoltage/ microcurrent load type</b>	100 mΩ max. (initial)
<b>Insulation resistance</b>		100 MΩ min. at 500 VDC
<b>Dielectric strength</b>		600 VAC, 50/60 Hz for 1 minute between terminals of same polarity 1,500 VAC, 50/60 Hz for 1 minute between current-carrying parts and ground
<b>Vibration</b>	<b>Malfunction durability</b>	10 to 55 Hz, 1.5 mm double amplitude
<b>Shock</b>	<b>Malfunction durability</b>	300 m/s <sup>2</sup> min. (approx. 30 g min.)
<b>Ambient temperature</b>	<b>Operating</b>	-25° to 65°C with no icing
<b>Humidity</b>	<b>Operating</b>	45% to 85% ay 5° to 35°C
<b>Service life</b>	<b>Mechanical</b>	1 million operations min. (OT: full stroke)
	<b>Electrical</b>	30,000 operations min. (rated load)
<b>Weight</b>		Approx. 0.5 g

Note: Data shown are of initial value.

## ■ Operating Characteristics

Characteristics	Part number				
	D2F-01F-□, D2F-F-□	D2F-01-□, D2F-□	D2F-01FL-□, D2F-FL-□	D2F-01L-□, D2F-L-□	D2F-01FL3-□, D2F-FL3-□
<b>OF max.</b>	75 g	150 g	25 g	80 g	40 g
<b>RF min.</b>	5 g	20 g	2 g	5 g	2 g
<b>PT max.</b>	0.5 mm (0.020 in)	0.5 mm (0.020 in)	—	—	—
<b>OT min.</b>	0.25 mm (0.009 in)	0.25 mm (0.009 in)	0.55 mm (0.022 in)	0.55 mm (0.022 in)	0.5 mm (0.020 in)
<b>MD max.</b>	0.12 mm (0.005 in)	0.12 mm (0.005 in)	0.5 mm (0.020 in)	0.5 mm (0.020 in)	0.45 mm (0.177 in)
<b>OP</b>	5.5 ± 0.3 mm (0.22 ± 0.012 in)	5.5 ± 0.3 mm (0.22 ± 0.012 in)	6.8 ± 1.5 mm (0.267 ± 0.059 in)	6.8 ± 1.5 mm (0.267 ± 0.059 in)	8.5 ± 1.2 mm (0.335 ± 0.047 in)
<b>FP max.</b>	—	—	10 mm (0.394 in)	10 mm (0.394 in)	13 mm (0.512 in)

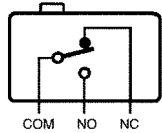
Characteristics	Part number		
	D2F-01L3-□, D2F-L3-□	D2F-01FL2-□, D2F-FL2-□	D2F-01L2-□, D2F-L2-□
<b>OF max.</b>	80 g	40 g	80 g
<b>RF min.</b>	5 g	2 g	5 g
<b>PT max.</b>	—	—	—
<b>OT min.</b>	0.5 mm (0.020 in)	0.55 mm (0.022 in)	0.55 mm (0.022 in)
<b>MD max.</b>	0.45 mm (0.177 in)	0.5 mm (0.020 in)	0.5 mm (0.020 in)
<b>OP</b>	8.5 ± 1.2 mm (0.335 ± 0.047 in)	13 ± 2.0 mm (0.512 ± 0.079 in)	13 ± 2.0 mm (0.512 ± 0.079 in)
<b>FP max.</b>	13 mm (0.512 in)	16.5 mm (0.650 in)	16.5 mm (0.650 in)

## ■ Ratings

Rated Voltage	Resistive load			
	Microvoltage/current		General-purpose	
	Low force	Standard	Low force	Standard
125 VAC	—	—	1 A	3 A
30 VDC	0.1 A	0.1 A	0.5 A	2 A

Note: When using an inductive load or motor load, consult OMRON.

## ■ Contact Form



## ■ Approvals

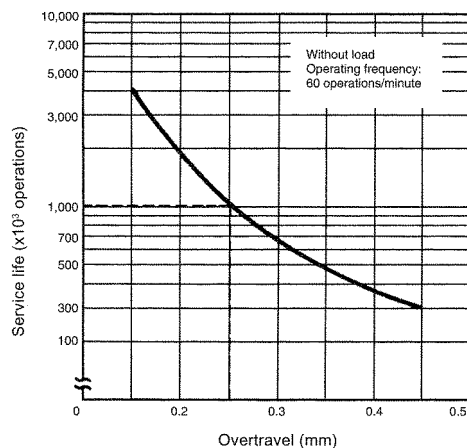
UL (File No. E41515), CSA (File No. LR21642), EN conforms 61058-1

Type	Rating
D2F Series, D2F-01 Series	3 A, 125 VAC 1 A, 125 VAC 2 A, 30 VDC 0.5 A, 30 VDC 0.1 A, 30 VDC

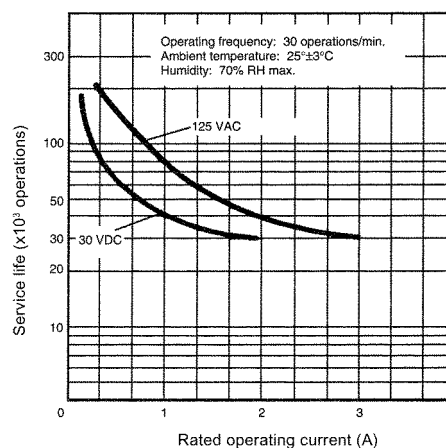
**Note:** The rated values approved by each of the safety standards (e.g.UL,CSA) may be different from the performance characteristics individually defined in this catalog.

## Engineering Data

### Mechanical service life



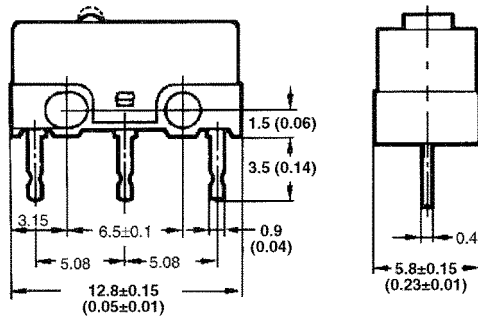
### Electrical service life



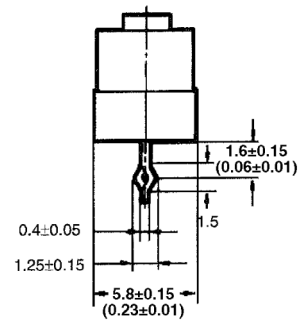
**Note:** 1. Values are for pin plunger actuator type.

## Terminals

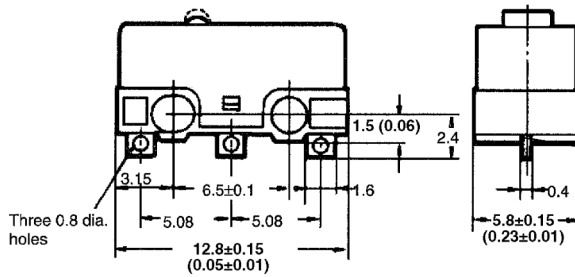
**D2F type**  
PCB terminal



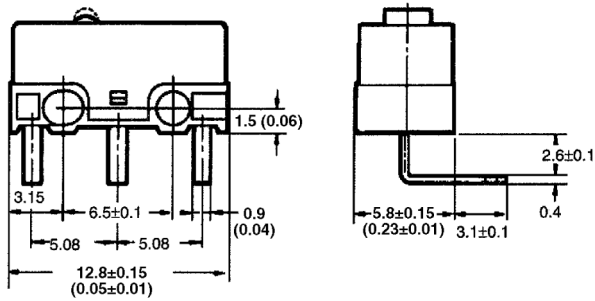
**D2F-T type**  
Self-supporting terminal



**D2F-D type**  
Soldered terminal



**D2F-A type**  
Right-angle terminal



**D2F-A1 type**  
Left-angle terminal

