

# **Ultra-Miniature Toggle Switch**

Washable





**RoHS Compliant** 

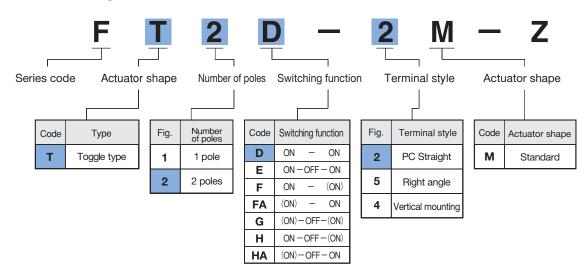
#### Features -

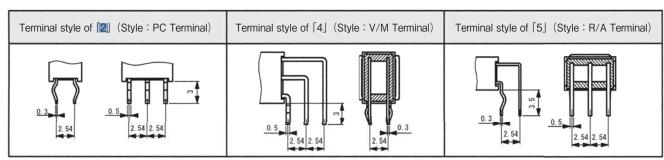
- 1. Ultra-miniature toggle switch for high density mounting.
- 2. Washable.
- 3. Terminal pin pitch: 2.54 mm.
- 4. Independent detent mechanism ensures light operational feel.
- 5. Clip contact mechanism for long-term contact reliability.
- 6. Gold-plated contacts.

#### ■ Specifications

Rating	Max.	28VDC 0.4VA max		
	Min.	$1\mu$ A 20mVDC		
Initial contact resistance		100mΩ max.	(1.5mA 200µ VAC)	
Dielectric strength		250VAC 1 minute		
Insulation resistance		500MΩ min.	(250VDC)	
Electrical life		10,000 cycles at max. rating 50,000 cycles at min. rating ( <b>D,E</b> type) 30,000 cycles at min. rating ( <b>F,G,H</b> type)		
Operating temperature range		_40°C~+85°C		
Storage temperature range		-40°C∼+85°C		

## Part Numbering

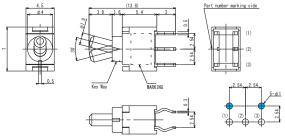












Part No.			
FT1D-2M-Z	ON	_	ON
☆FT1E-2M-Z	ON	OFF	ON
☆FT1F-2M-Z	ON	_	(ON)
★FT1G-2M-Z	(ON)	OFF	(ON)
▲FT1H-2M-Z	ON	OFF	(ON)
Connecting terminals	2-3	_	2-1

Switching function

Switching function

Part No.

Terminal numbers are not shown on the switch.

PC hole Layouts (Topview

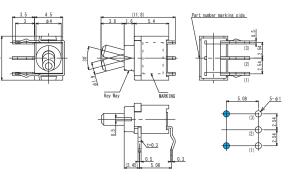
DPDT PC Straight	4.5	3.8 1.5 5.4 3	Part number marking side  (1)  (2)  (3)  (6)
	<u> </u>	Key Way WARKING	(4) (5) (6) (7) (7)
Terminal numbers are	not shown on the switch	ch.	PC hole Layouts (Topview)

Switching function Part No.	Key	Key	Key
FT2D-2M-Z	ON	_	ON
☆FT2E-2M-Z	ON	OFF	ON
★FT2F-2M-Z	ON	_	(ON)
★FT2G-2M-Z	(ON)	OFF	(ON)
★FT2H-2M-Z	ON	OFF	(ON)
Connecting terminals	2-3 5-6	_	2-1 5-4









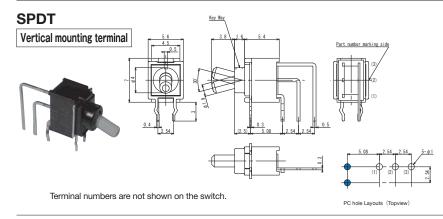
FT1D-5M-Z	ON	_	ON
FT1E-5M-Z	ON	OFF	ON
☆FT1F-5M-Z	(ON)	_	ON
★FT1FA-5M-Z	ON	_	(ON)
☆FT1G-5M-Z	(ON)	OFF	(ON)
★FT1H-5M-Z	(ON)	OFF	ON
▲FT1HA-5M-Z	ON	OFF	(ON)
Connecting terminals	2-1	_	2-3

Terminal numbers are not shown on the switch.

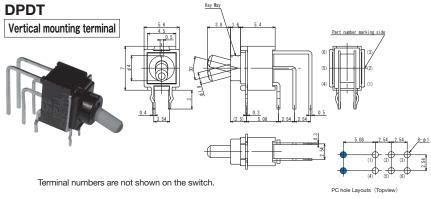
PC hole Layouts (Topview)

וטפט		
Right Angle Terminal	(13.85) Pa	rt number marking side
	(6) (8) (8) (9) (9) (9) (9) (10) (10) (10) (10) (10) (10) (10) (10	(3) (3) (3) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4
	10.3 0.5 0.5 0.5 0.3	(1) (3) (6) (3) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7
Terminal numbers are not shown on the s	switch.	PC hole Layouts (Topview)

Switching function  Part No.	Key	Кеу	A Key
☆FT2D-5M-Z	ON	_	ON
★FT2E-5M-Z	ON	OFF	ON
★FT2F-5M-Z	(ON)	_	ON
▲FT2FA-5M-Z	ON	_	(ON)
▲FT2G-5M-Z	(ON)	OFF	(ON)
▲FT2H-5M-Z	(ON)	OFF	ON
▲FT2HA-5M-Z	ON	OFF	(ON)
Connecting terminals	2-1 5-4	_	2-3 5-6



Switching function Part No.	Key	Key	A Key
☆FT1D-4M-Z	ON	-	ON
★FT1E-4M-Z	ON	OFF	ON
★FT1F-4M-Z	ON	_	(ON)
▲FT1FA-4M-Z	(ON)	_	ON
▲FT1G-4M-Z	(ON)	OFF	(ON)
▲FT1H-4M-Z	ON	OFF	(ON)
▲FT1HA-4M-Z	(ON)	OFF	ON
Connecting terminals	2-3	_	2-1



Part I	Switching function	Key	Key	Key
F	Γ2D-4M-Z	ON	_	ON
★F	Γ2E-4M-Z	ON	OFF	ON
★F	Γ2F-4M-Z	ON	_	(ON)
▲F	Γ2FA-4M-Z	(ON)	_	ON
▲F	Γ2G-4M-Z	(ON)	OFF	(ON)
▲F	Г2H-4M-Z	ON	OFF	(ON)
▲F	Γ2HA-4M-Z	(ON)	OFF	ON
Conn	ecting terminals	2-3 5-6	_	2-1 5-4

### ■ Soldering Specifications

(1)Manual Soldering

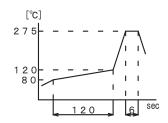
Device : Soldering iron

380°C, Max.; 3 seconds, Max.

(2)Auto Soldering

Device: Jet wave type or dip type 275°C, Max.; 6 seconds, Max.

• Pre-heating should be done at temperatures from 80 to 120°C and within 120 sec.



(3)When soldering two or more terminals to a common land, use solder resist to separate them.

### Flux Cleaning -

(1)Solvent: Fluorine or Alcohol type.

- (2)Cleaning after soldering should be done after the PC board is exposed to room temperature (30°C or below) for 1 to 2 hours.
- (3)Do not use ultrasonic cleaning.

## ■ Packaging Specifications

