APE

Washable

FUJISOKU SWITCHES

RoHS Compliant

Subminiature Pushbutton Switches



UL

■Features

1. Twin-contact clip mechanism for high reliability.
2. Process sealed structure
3. Gold-plated contacts.
4. Terminal pin pitch: 2.54 mm.
5. UL recognized

■ Specifications

Rating	0.4VA AC、DC
	Max:50mA 60VAC/DC Min:1μA 20mVAC/DC
Initial contact resistance	50m Ωmax. (1.5mA 200μVAC)
Dielectric strength	250VAC 1 minute
Initial Insulation resistance	500MΩ min. (500VDC)
Electrical life	10,000 operations at maximum rating. 30,000 operations at 0.4VA
Operating force	0.78～2.94N
Operating temperature range	−20～+85℃
Storage temperature range	−40～+85℃

■ Part Numbering

A PE 2 F — 2 M — 10 — Z

- A — Series code
- PE — Actuator shape
- 2 — Number of poles
- F — Switching function
- 2 — Terminal style
- M — Actuator shape
- 10 — Clip contact mechanism
- Z

Code	Type
PE	Push type

Fig.	Number of poles
1	1 pole
2	2 poles

Code	Switching function
F	ON — (ON)

Fig.	Terminal style
2	PC Straight
5	Right angle (0.2 inch pitch)
6	Right angle (0.3 inch pitch)

Code	Actuator shape
M	Standard

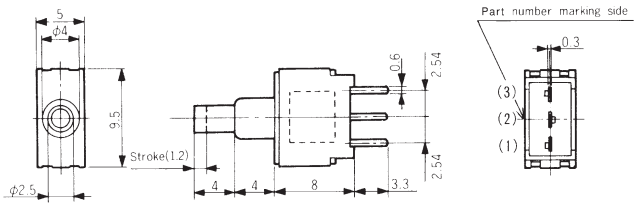
■Optional Accessories ····· Page 253.

(ON) : Momentary.

APE−M（Standard type）

SPDT



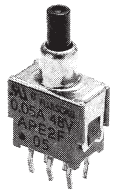


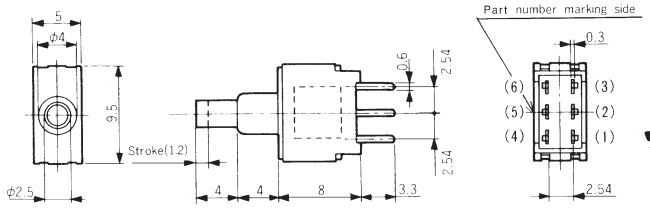
PC Straight

Terminal numbers are not shown on the switch.

Switching function / Part No.		Push
APE1F−2M−10−Z	ON	(ON)
Connecting terminals	2−3	2−1

DPDT



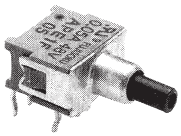


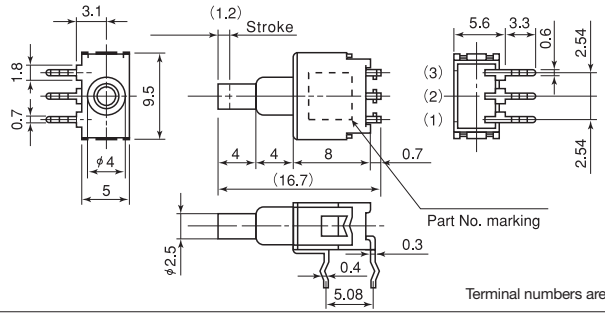
PC Straight

Terminal numbers are not shown on the switch.

Switching function / Part No.		Push
APE2F−2M−10−Z	ON	(ON)
Connecting terminals	2−3 5−6	2−1 5−4

SPDT



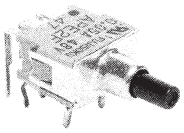


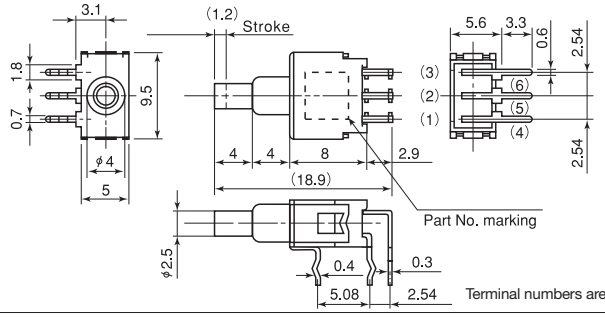
0.2R/A

Terminal numbers are not shown on the switch.

Switching function / Part No.		Push
★APE1F−5M−10−Z	ON	(ON)
Connecting terminals	2−3	2−1

DPDT



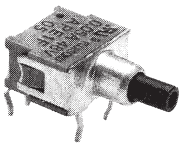


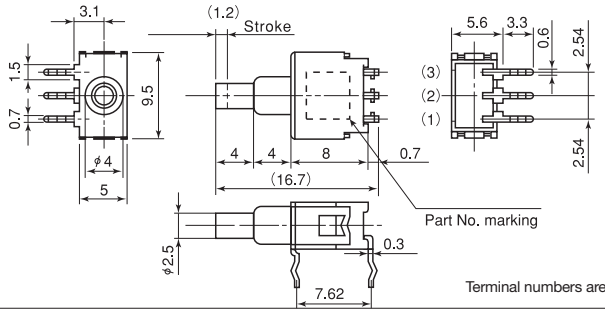
0.2R/A

Terminal numbers are not shown on the switch.

Switching function / Part No.		Push
★APE2F−5M−10−Z	ON	(ON)
Connecting terminals	2−3 5−6	2−1 5−4

SPDT



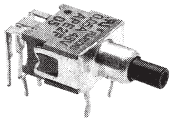


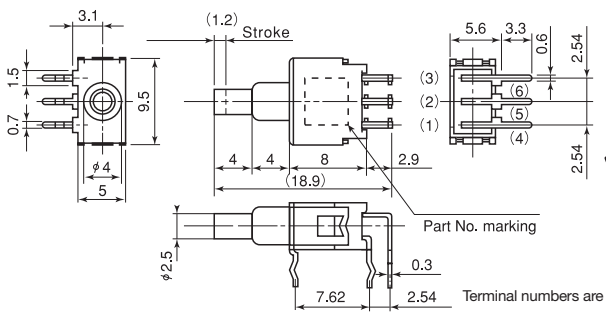
0.3R/A

Terminal numbers are not shown on the switch.

Switching function / Part No.		Push
APE1F−6M−10−Z	ON	(ON)
Connecting terminals	2−3	2−1

DPDT





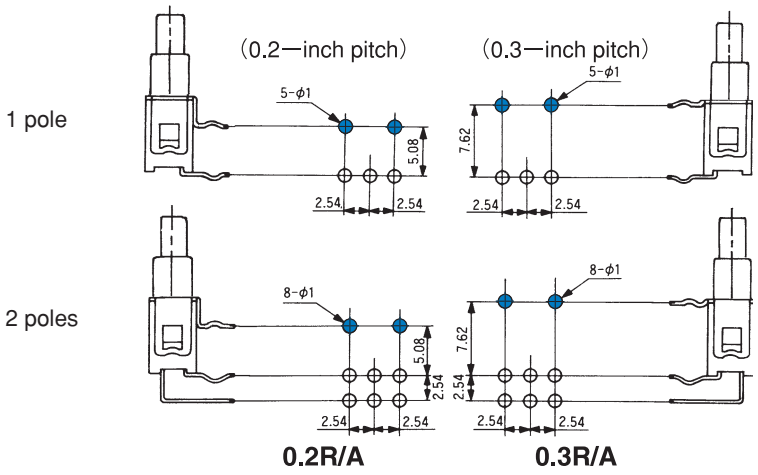
0.3R/A

Terminal numbers are not shown on the switch.

Switching function / Part No.		Push
☆APE2F−6M−10−Z	ON	(ON)
Connecting terminals	2−3 5−6	2−1 5−4

(ON)：Momentary.　☆：Semi-standard products.　★：Made to order products.

■Right angle terminals

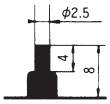


●The space between the terminal rows are available in two dimensions: 0.2 inches (5.08 mm) and 0.3 inches (7.62 mm).

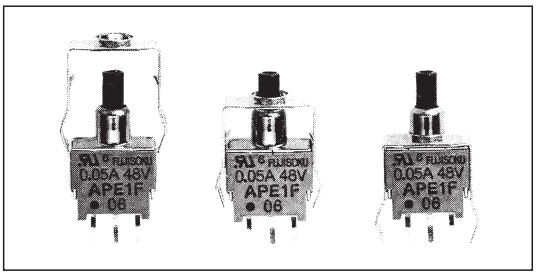
[Example] 0.2-inch pitch : **APE1F-5M-10-Z**
0.3-inch pitch : **APE1F-6M-10-Z**

■Button Shape

Standard (M)



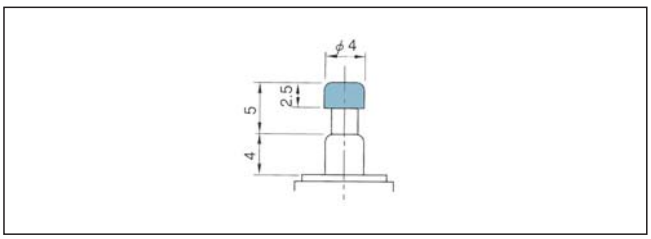
■Bracket Installation Procedure



■Mounting of Switch

●Use PC boards with hole diameter of 1mm.
●Do not bend the terminal pins before mounting the switch on the PC board.
●After mounting the switch, do not place the device in such a way that the device weight will be applied on to the actuator of the switch.
●Do not apply load exceeding 12.7 N to the actuator. If load exceeding 12.7 N is expected to be applied to the actuator, please use a **Bracket** (optional accessory sold separately). Maximum load will be 29.4 N when a **Bracket** is used.
●Use **Bracket 140000640314** or **140000640318** for side-by-side mounting.
●To increase mounting strength, use **Bracket 140000640315**.
●PC Hole Layouts will change depending on the **Bracket**. Please refer to P.249.

■Color Cap Mounting



Refer to P.253.

:Optional Accessories.

■ Soldering Specifications

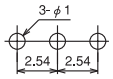
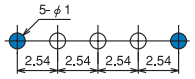
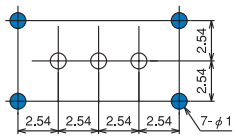
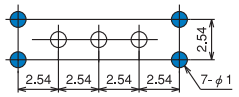
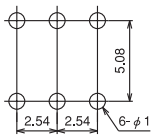
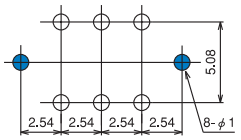
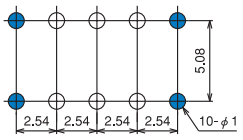
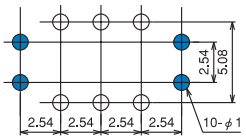
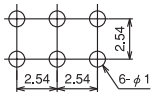
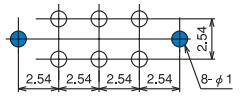
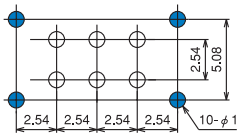
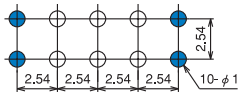
(1)Manual Soldering
Device : Soldering iron
380°C, Max.; 3 seconds, Max.
(2)Auto Soldering
Device : Jet wave type or dip type
275°C, Max.; 6 seconds, Max.
・Pre-heating should be done at temperatures ranging from 80° C to 120°C and within 120 seconds.

■Flux Cleaning

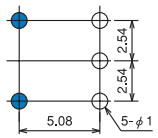
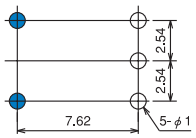
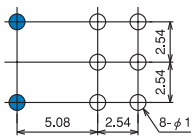
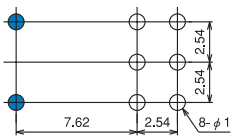
(1)Solvent :Fluorine or Alcohol type.
(2)Cleaning after soldering should be done after the terminal temperature falls to 90℃ or below, or after leaving the switch for five minutes or longer at room temperature.
(3)Do not use ultrasonic cleaning.

■PC Hole Layouts (AP・APE)

PC Straight

Type \ Mounting		Without **Bracket**	When optional **Bracket** is used.		
			140000640314 or **140000640316**	**140000640315** or **140000640317**	**140000640318**
AP-M AP-S AP-H APE	1 pole				
AP-M AP-S AP-H	2 poles				
APE	2 poles				

■Right-angle Terminal

Type \ Terminal		0.2—inch pitch	0.3—inch pitch
AP-M AP-S APE	1 pole		
	2 poles		

■Packaging Specification

