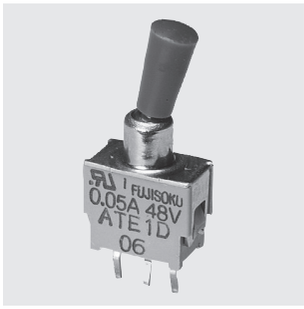
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ATE

Subminiature Toggle Switch

Washable



RoHS Compliant

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. Independent detent mechanism ensures light operational feel.
6. UL recognized (Excluding ATE-J series with plastic cap/rocker)

■ Specifications

Rating	Max.	50mA 60VAC/DC 0.4VA AC/DC
	Min.	1 μA 20mVAC/DC
	UL	48VAC/DC 50mA
Initial contact resistance		50mΩ Max. (1.5mA 200μVAC)
Dielectric strength		250VAC 1 minute
Insulation resistance		500MΩ min. (500VDC)
Electrical life		10,000 cycles at 0.4VA rating. 50,000 cycles at 0.4VA rating. (**D.E** type) 30,000 cycles at 0.4VA rating. (**F.G.H** type)
Mechanical life		**D.E** type 50,000 cycles **F.G.H** type 30,000 cycles
Operating temperature range		−20℃～+85℃
Storage temperature range		−40℃～+85℃

■Part Numbering

A TE 2 D — 2 M 3 — 10 — Z

Series code | Actuator shape | Number of poles | Switching function | Terminal style | Actuator shape | Bracket style | Clip mechanism

Code	Type
TE	Toggle type

Fig.	Number of poles
1	1 pole
2	2 poles

Code	Switching function
D	ON — ON
E	ON−OFF−ON
F	ON — (ON)
G	(ON)−OFF−(ON)
H	ON−OFF−(ON)

Compact type
Space between terminal rows (Double pole): 2.54 mm

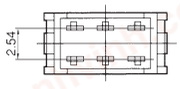


Fig.	Terminal style
2	PC Straight
5	Right angle (0.2 inch pitch)
6	Right angle (0.3 inch pitch)

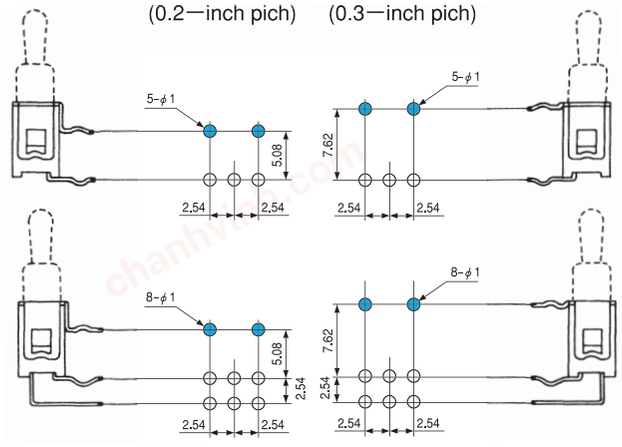
Code	Actuator shape
M	Standard
F	Flat toggle

Fig.	Bracket
3	Without bracket

(ON) : Momentary.

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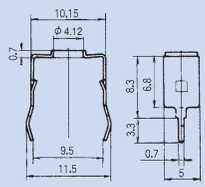
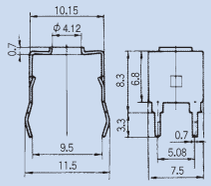
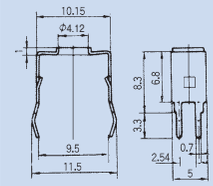
■Right Angle Terminals

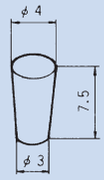


●The space between the terminal rows are available in two dimensions: 0.2 inches (5.08 mm) and 0.3 inches (7.62 mm).
[Example] 0.2-inch pitch: **ATE1D-5M3-10-Z**
0.3-inch pitch: **ATE1D-6M3-10-Z**

■Optional Accessories

Refer to P.371 for PC Hole Layouts.

Part name	Bracket		
Poles	Single pole	Double poles	
Box size	5 mm	7.5 mm	5 mm
Type	ATE—2M・2F		
Dimensions			
Part number	**140000640314**	**140000640315**	**140000640318**

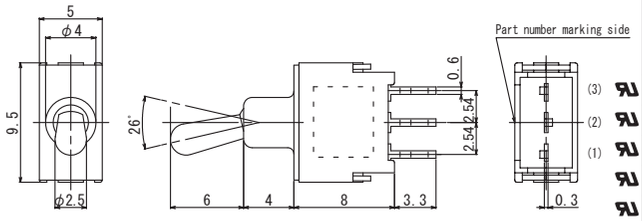
Type	ATE—2M・5M・6M
Part name	**Color Cap**
Dimensions	Gloss finish  Vinyl chloride
White	**140000470174**
Red	**140000470175**
Black	**140000470173**
Gray	**140000470179**

SPDT

PC Straight

Standard Toggle





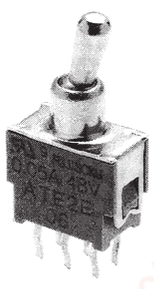
Terminal numbers are not shown on the switch.

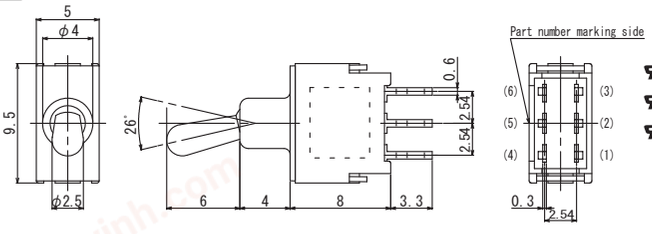
Part No. \ Switching function	Viewed from part No. marking side		
			
ATE1D-2M3-10-Z	ON	—	ON
ATE1E-2M3-10-Z	ON	OFF	ON
ATE1F-2M3-10-Z	ON	—	(ON)
ATE1G-2M3-10-Z	(ON)	OFF	(ON)
☆**ATE1H-2M3-10-Z**	ON	OFF	(ON)
Connecting terminals	2—3	—	2—1

DPDT

PC Straight

Distance between two terminal rows : 2.54mm





Terminal numbers are not shown on the switch.

Part No. \ Switching function	Viewed from part No. marking side		
			
ATE2D-2M3-10-Z	ON	—	ON
☆**ATE2E-2M3-10-Z**	ON	OFF	ON
☆**ATE2G-2M3-10-Z**	(ON)	OFF	(ON)
Connecting terminals	2—3 5—6	—	2—1 5—4

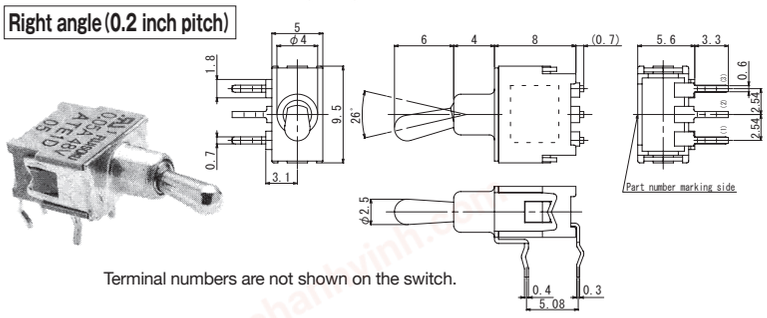
★ : Made to order products. ☆ : Semi-standard products. (ON) : Momentary. :Optional Accessories.

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ATE

SPDT (Mounting height : 3.1mm)

Right angle (0.2 inch pitch)

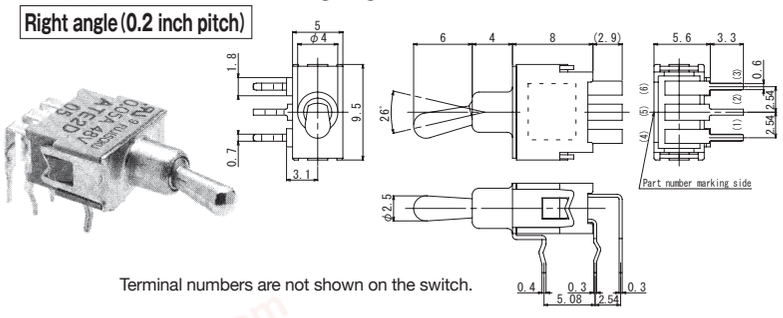


Terminal numbers are not shown on the switch.

Part No. \ Switching function	Viewed from part No. marking side		
			
ᵠᵠ ATE1D-5M3-10-Z	ON	—	ON
ᵠᵠ ☆ATE1E-5M3-10-Z	ON	OFF	ON
ᵠᵠ ☆ATE1G-5M3-10-Z	(ON)	OFF	(ON)
ᵠᵠ ★ATE1H-5M3-10-Z	ON	OFF	(ON)
Connecting terminals	2—3	—	2—1

DPDT (Mounting height : 3.1mm)

Right angle (0.2 inch pitch)

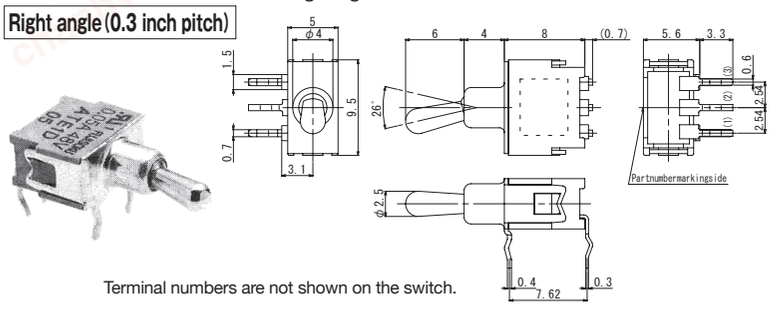


Terminal numbers are not shown on the switch.

Part No. \ Switching function	Viewed from part No. marking side		
			
ᵠᵠ ☆ATE2D-5M3-10-Z	ON	—	ON
ᵠᵠ ☆ATE2G-5M3-10-Z	(ON)	OFF	(ON)
Connecting terminals	2—3 5—6	—	2—1 5—4

SPDT (Mounting height : 3.1mm)

Right angle (0.3 inch pitch)



Terminal numbers are not shown on the switch.

Part No. \ Switching function	Viewed from part No. marking side		
			
ᵠᵠ ATE1D-6M3-10-Z	ON	—	ON
ᵠᵠ ATE1E-6M3-10-Z	ON	OFF	ON
ᵠᵠ ATE1F-6M3-10-Z	ON	—	(ON)
ᵠᵠ ☆ATE1G-6M3-10-Z	(ON)	OFF	(ON)
ᵠᵠ ☆ATE1H-6M3-10-Z	ON	OFF	(ON)
Connecting terminals	2—3	—	2—1

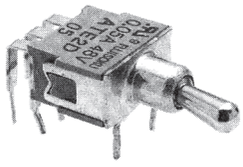
(ON) : Momentary. ☆ : Semi-standard products. ★ : Made to order products.

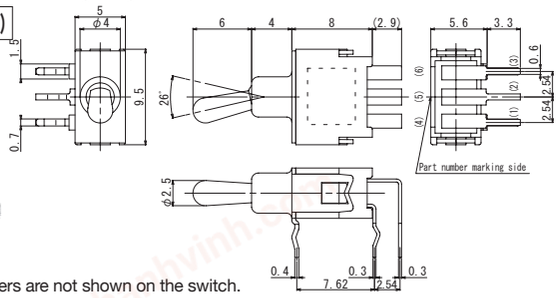
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DPDT

(Mounting height : 3.1mm)

Right angle (0.3 inch pitch)





Terminal numbers are not shown on the switch.

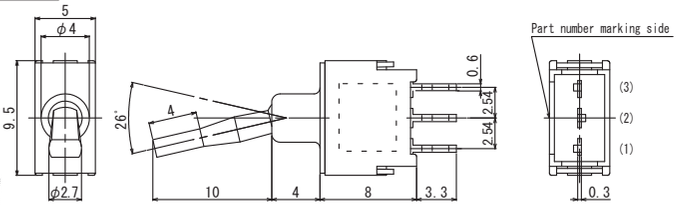
Part No. \ Switching function	Viewed from part No. marking side		
			
ATE2D-6M3-10-Z	ON	—	ON
Connecting terminals	2—3 5—6	—	2—1 5—4

SPDT

Flat Toggle

PC Straight





Terminal numbers are not shown on the switch.

Part No. \ Switching function	Viewed from part No. marking side		
			
ATE1D-2F3-10-Z	ON	—	ON
ATE1E-2F3-10-Z	ON	OFF	ON
Connecting terminals	2—3	—	2—1

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

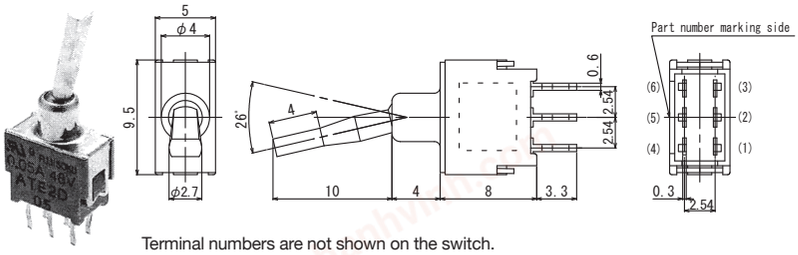
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ATE

DPDT

PC Straight

(Space between terminal rows (Double pole): 2.54 mm)



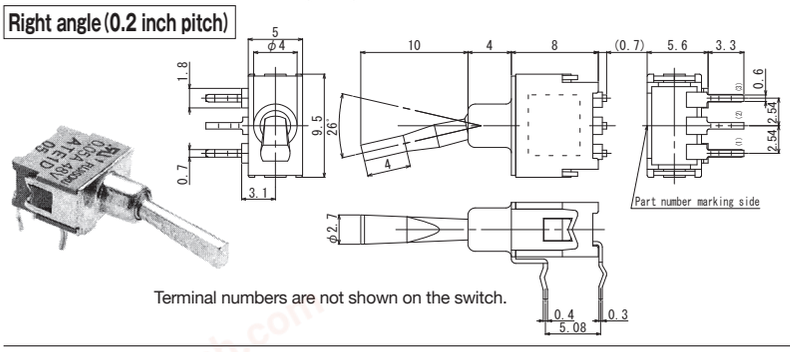
Terminal numbers are not shown on the switch.

Part No. \ Switching function	Viewed from part No. marking side		
			
☆ATE2D-2F3-10-Z	ON	—	ON
☆ATE2G-2F3-10-Z	(ON)	OFF	(ON)
Connecting terminals	2—3 5—6	—	2—1 5—4

SPDT

Right angle (0.2 inch pitch)

(Mounting height : 3.1mm)



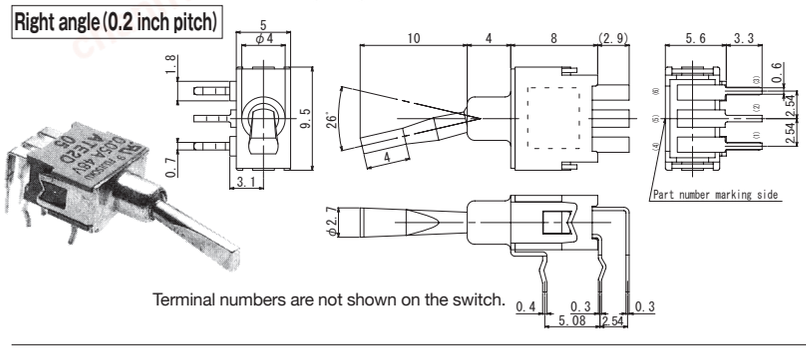
Terminal numbers are not shown on the switch.

Part No. \ Switching function	Viewed from part No. marking side		
			
★ATE1G-5F3-10-Z	(ON)	OFF	(ON)
★ATE1H-5F3-10-Z	ON	OFF	(ON)
Connecting terminals	2—3	—	2—1

DPDT

Right angle (0.2 inch pitch)

(Mounting height : 3.1mm)



Terminal numbers are not shown on the switch.

Part No. \ Switching function	Viewed from part No. marking side		
			
★ATE2D-5F3-10-Z	ON	—	ON
Connecting terminals	2—3 5—6	—	2—1 5—4

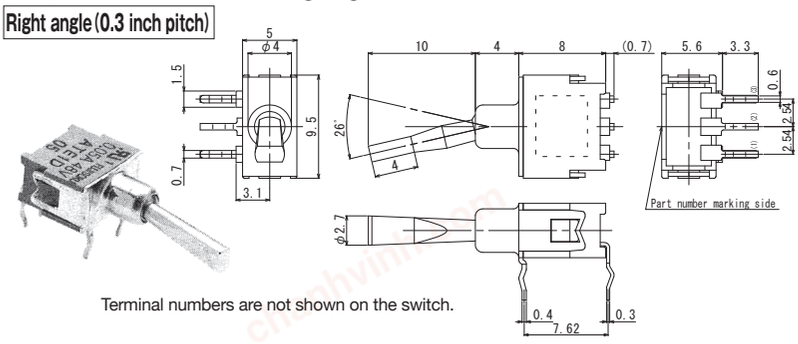
(ON) : Momentary. ☆ : Semi-standard products. ★ : Made to order products.

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SPDT

(Mounting height : 3.1mm)

Right angle (0.3 inch pitch)



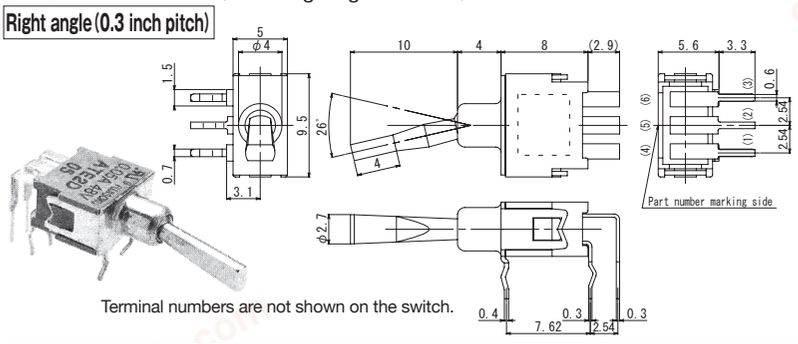
Terminal numbers are not shown on the switch.

Part No. \ Switching function	Viewed from part No. marking side		
			
☆ATE1G-6F3-10-Z	(ON)	OFF	(ON)
Connecting terminals	2—3	—	2—1

DPDT

(Mounting height : 3.1mm)

Right angle (0.3 inch pitch)



Terminal numbers are not shown on the switch.

Part No. \ Switching function	Viewed from part No. marking side		
			
☆ATE2D-6F3-10-Z	ON	—	ON
Connecting terminals	2—3 5—6	—	2—1 5—4

☆ : Semi-standard products. (ON) : Momentary.

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ATE-J (Plastic type)

■Part Numbering (Plastic cap·Rocker type)

A TE 1 D — 2 J 3 — 10 — Z

Series code | Actuator shape | Number of poles | Switching function | Terminal style | Actuator shape | Bracket style | Clip mechanism

Code	Type
TE	Toggle type

Fig.	Number of poles
1	1 pole
2	2 poles

Code	Switching function
D	ON — ON
E	ON—OFF—ON

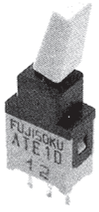
Fig.	Terminal style
2	P/C terminal
7	Vertical mounting

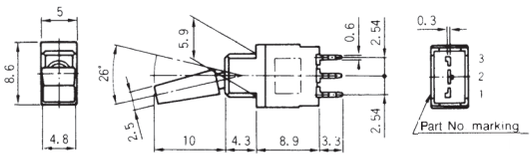
Code	Actuator shape
J	Plastic Knob type

Fig.	Bracket
3	Without bracket

SPDT

PC Straight





Mount with **CAP**

Part No. \ Switching function	Viewed from part No. marking side		
			
☆**ATE1D-2J3-10-Z**	ON	—	ON
★**ATE1E-2J3-10-Z**	ON	OFF	ON
Connecting terminals	2—3	—	2—1

●**Color cap** and **Rocker** accessories are sold separately.

Terminal numbers are not shown on the switch.

(ON) : Momentary.

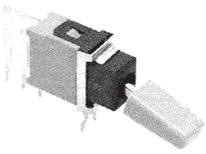
☆ : Semi-standard products.

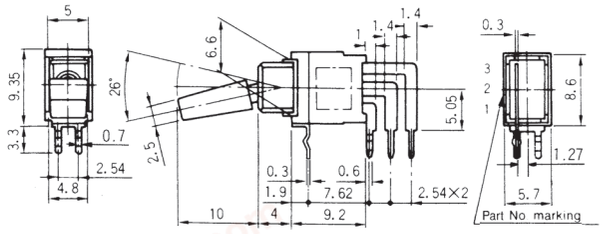
★ : Made to order products.

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SPDT

Vertical mounting





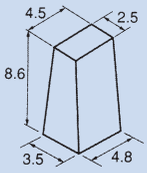
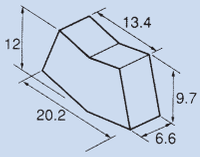
Part No. \ Switching function	Viewed from part No. marking side		
			
★ATE1D-7J3-10-Z	ON	—	ON
Connecting terminals	2—3	—	2—1

Mount with **CAP**

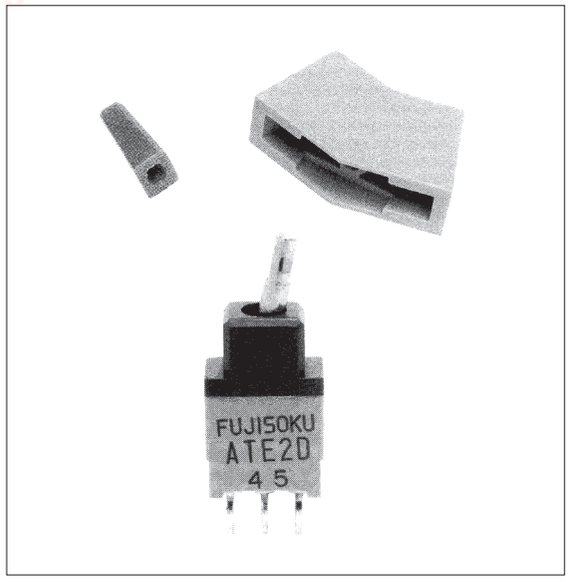
Terminal numbers are not shown on the switch.

■Optional Accessories

《Sold separately》

Type	ATE—2J・7J	ATE—2J・7J
Part name	**Color Cap**	**Rocker**
Dimensions	Matte finish  ABS resin	Matte finish  ABS resin
White	**140000050884**	**140000481541**
Red	**140000050886**	**140000481543**
Black	**140000050885**	**140000481542**

■Color Cap and Rocker Installation Procedure for ATE—J type



★ : Made to order products. (ON) : Momentary. :Optional Accessories.

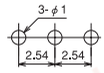
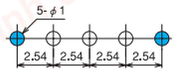
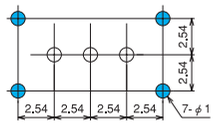
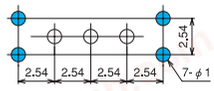
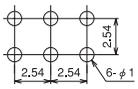
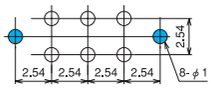
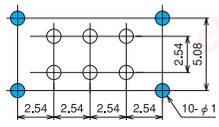
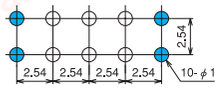
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ATE

■PC Hole Layouts

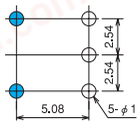
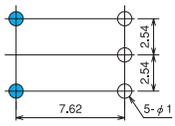
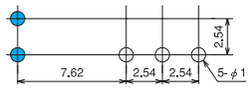
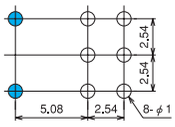
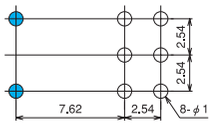
PC terminal

(Top voew)

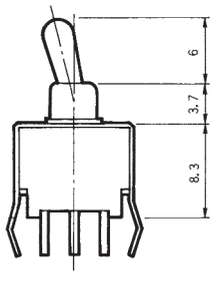
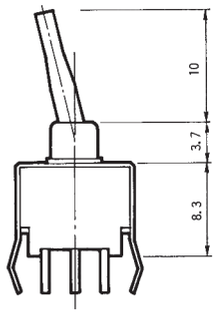
Series code	ATE—2M·2F·2J	ATE—2M·2F		
Installation	Whithout bracket	When optional bracket is used		
		140000640314	140000640315	140000640318
1—pole				
2—poles 2.54mm Tow terminal rows				

Right Angle terminal・Vertical Mount terminal

(Top view)

Series code	ATE—5M・5F	ATE—6M・6F	ATE—7J
Terminal	R/A 0.2—inch pich	R/A 0.3—inch pich	Vertical mount
1—pole			
2—poles			

■Bracket Mounted Dimensions.

Type	ATE—2M	ATE—2F
	Standard	Flat
Dimensions		

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■Soldering Specifications

(1)Manual Soldering

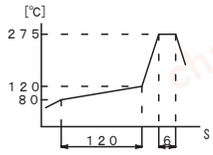
Device ： Soldering iron

380℃, Max.; 3 seconds, Max.

(2)Auto Soldering

Device ： Jet wave type or dip type

275℃, Max.; 6 seconds, Max.



●Pre-heating should be done at temperatures ranging from 80℃ to 120℃ and within 120 seconds

(3)Install the cap/rocker accessory after soldering and cleaning.

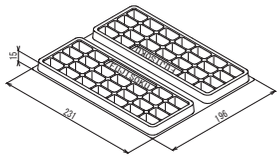
■Flux Cleaning

(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.

■Packaging Specifications

Plastick Pack

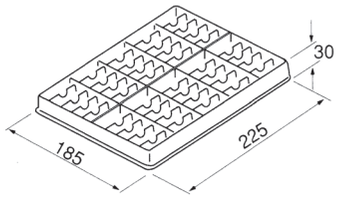


PC terminals
: 100 pcs./pack

Right angle terminals
: 50 pcs./pack

Plastick Pack

Vertical mounting terminals
100 pcs./pack



■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.

