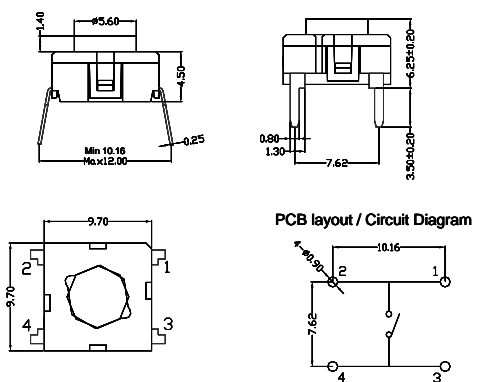
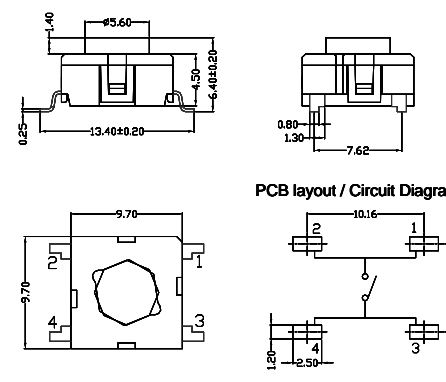
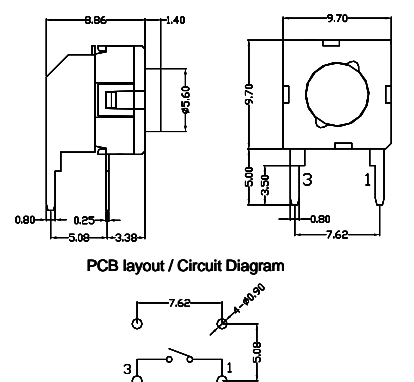
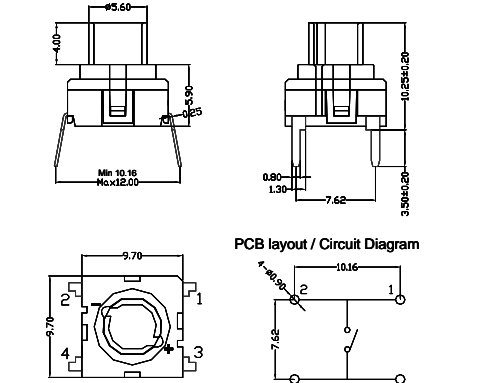
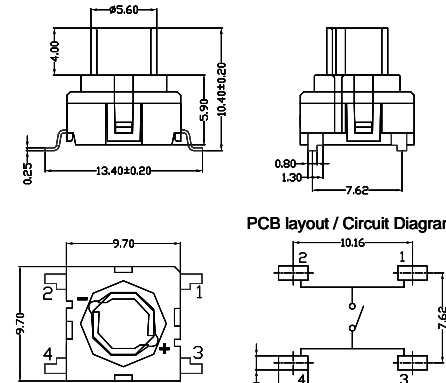
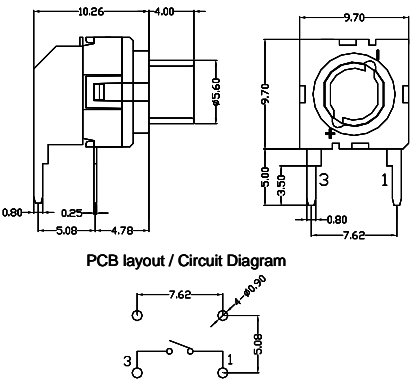


Technical Data

Through-hole / SMD / Right angle
 single pole / momentary
 50mA/24VDC
 10,000,000 operations life time (Max.)
 Meet IP67
 Contact resistance : 30mΩ
 Insulation resistance : > 10MΩ
 Basic temp.: -40/+115 °C
 High temp.: -40/+160 °C
 Max actuation Force : 100N for 10 Sec.
 Push force : 4N +/- 1N

PATENTED



3CH/T	3CS	3CY
<p>Dimensions (through-hole)</p>  <p>PCB layout / Circuit Diagram</p>	<p>Dimensions (SMD)</p>  <p>PCB layout / Circuit Diagram</p>	<p>Dimensions (right-angle)</p>  <p>PCB layout / Circuit Diagram</p>
3FH/T	3FS	3FY
<p>Dimensions (through-hole)</p>  <p>PCB layout / Circuit Diagram</p>	<p>Dimensions (SMD)</p>  <p>PCB layout / Circuit Diagram</p>	<p>Dimensions (right-angle)</p>  <p>PCB layout / Circuit Diagram</p>

How to order

3 C

TM series
3C
3F

Mounting

- H** through-hole
- T** through-hole reflow
- S** surface mount
- Y** right angle

1 D

CAP



Colour codes

- 00 Blue
- 02 Green *
- 03 Grey
- 04 Yellow *
- 06 White
- 08 Red
- 09 Black

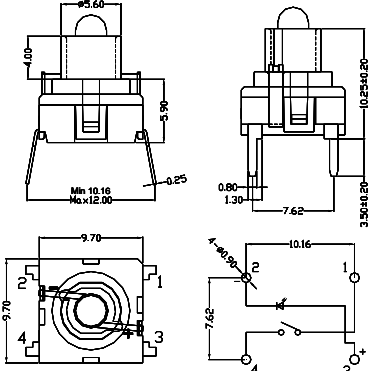
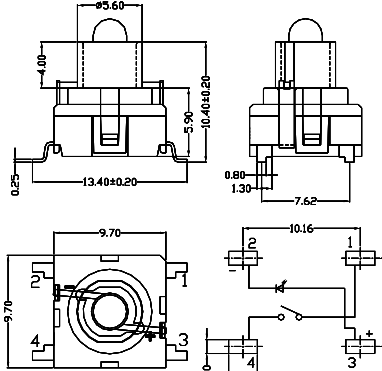
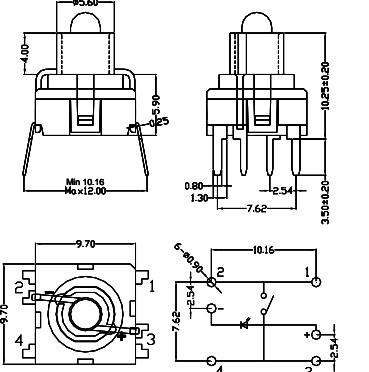
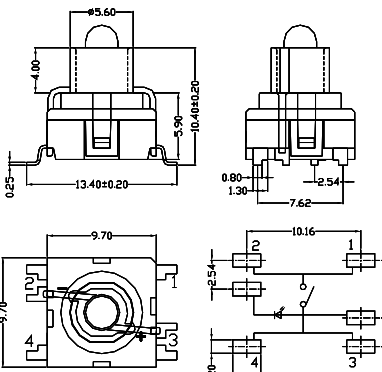
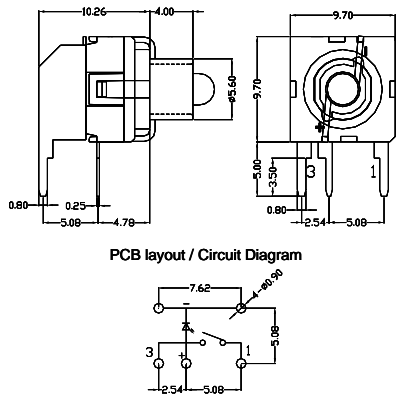
- 1 Through-hole : base & cover with Blue color
- 2 SMD : base & cover with Black color
- 3 Cover : with White color
- 4 * CAP MOQ: 2000pcs per order
 CAP color cross with MEC color by RAL no.

Technical Data

PATENTED

Through-hole / SMD / Right angle
 single pole / momentary
 50mA/24VDC
 10,000,000 operations life time (Max.)
 Meet IP67
 Contact resistance : 30mΩ
 Insulation resistance : > 10MΩ
 Basic temp.: -40/+115 °C
 High temp.: -40/+160 °C
 Max actuation Force : 100N for 10 Sec.
 Push force : 4N +/-1N
 Available With LED



4FH/T	4FS	
<p>Dimensions (through-hole)</p> 	<p>Dimensions (SMD)</p> 	<p>Material colors :</p> <ol style="list-style-type: none"> 1. Through-hole : base & Cover with Blue color 2. SMD : base & actuator with Black color 3. Cover : with White color
6FH/T	6FS	6FY
<p>Dimensions (through-hole)</p> 	<p>Dimensions (SMD)</p> 	<p>Dimensions (right-angle)</p>  <p>PCB layout / Circuit Diagram</p>

How to order

4 F

1 F

TM series

4F
6F

Mounting

H through-hole
 T through-hole reflow
 S surface mount
 Y right angle

LED colour codes

01 blue
 21 green
 42 yellow
 61 white
 82 red
 2142 green/yellow
 8221 red/green
 8242 red/yellow

CAP



Colour codes

00 Blue
 02 Green *
 03 Grey
 04 Yellow *
 06 White
 08 Red
 09 Black

* CAP MOQ: 2000pcs per order
 CAP color cross with MEC color by RAL no.

Electrical Specifications

Contact resistance	< 30m Ω- typ. 10m Ω
Insulation resistance	> 10M Ω
Recommended load	0.5μ-50mA 24VDC
Contact bounce	<2mS- typically 0.5mS

Mechanical Specifications

Standard actuation force (switch)	4.0N typ.
Max. actuation force without cap	100N for 10sec.
Key travel (switch)	1 mm
Life time (switch)	10.000.000 cycles(Max.)

Temperature Range

Basic temperature	-40/+115 °C
Working temperature	Min. -40°C Max. +160°C
Storage temperature	Min. -40°C Max. +160°C

Soldering IEC 68-2-20

Infrared, vapour phase, wave-soldering
 max. 240°C for max. 40 sec.
 or max. 260°C for max. 30 sec.
 Soldering Iron- max. 350°C for max. 3 sec. Flux tight.

Environmental Endurance IEC 68-2-3

Temperature	+40°C
Humidity	93% RH
Duration	21 Days

Temperature Cycling IEC 68-2-14

Temperature limit	Min. -55°C - Max. +85°C
Number of cycles	200
Exposure time at each temperature	10 min
Recovery time before measurements	15 hrs.
Sealing IEC 529	meet IP-67

Vibration Test : meet IEC 68-2-6

Soldering

(1)Hand Soldering

Soldering iron 30W or under at 350°C for 3 sec max or at 270°C for 5 sec max.

(2)Reflow Soldering

260°C±5°C within 30 sec for reflow. In-line or Batch system.

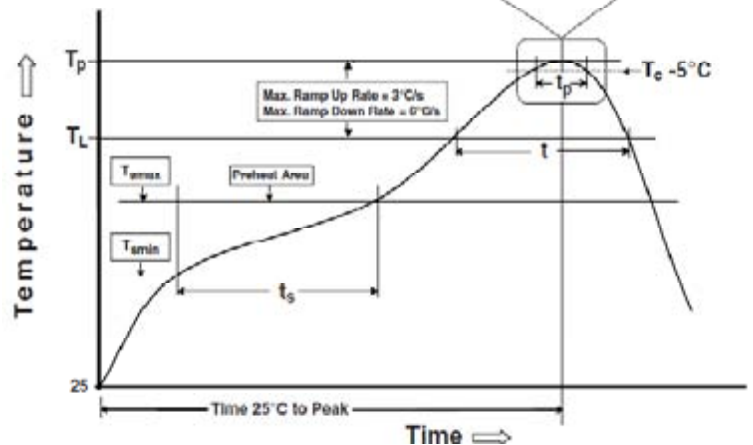
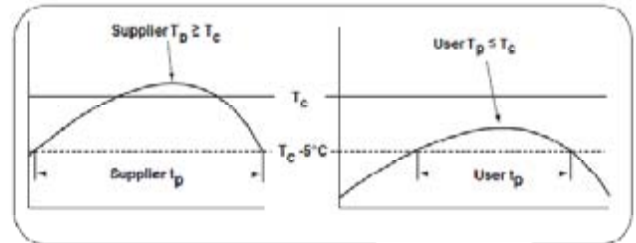
(3)Wave soldering

For lead free wave solder simulation of typical components, the solder bath temperature Shall be maintained to 275°C. The hold time in the solder shall be 10 +2/-0 seconds.

※ Any flux enters the switch may influence contact function .

※ All CAP un-allow pass through Soldering process.

Reflow Soldering Standard Conditions



Classification Reflow Profiles

Profile Feature	Pb-Free Assembly
Preheat & Soak	
Temperature Min (T_{smin})	150 °C
Temperature (T_{smax})	200 °C
Time(t_s) from (T_{smin} to T_{smax})	60-120 seconds
Average ramp-up rate (T_{smax} to T_p)	3 °C/second max.
Liquidous temperature (T_L)	217°C
Time at liquidous (t_L)	80-150 seconds
Peak package body temperature(T_p)*	For user T_p must not exceed the Classification temp: 260°C For suppliers T_p must equal or exceed Classification temp: 260°C
Time (t_p) within 5 °C of the specified classification temperature (T_c)	30 seconds
Average ramp-down rate (T_p to T_{smax})	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.
*Tolerance for peak profile temperature(T_p) is defined as a supplier minimum	

Note 1: All temperatures refer to topside of the package, measured on the package body surface.

Note 2: Time within 5 °C of actual peak temperature (t_p) specified for the reflow profiles is a "supplier" minimum and "user" maximum.