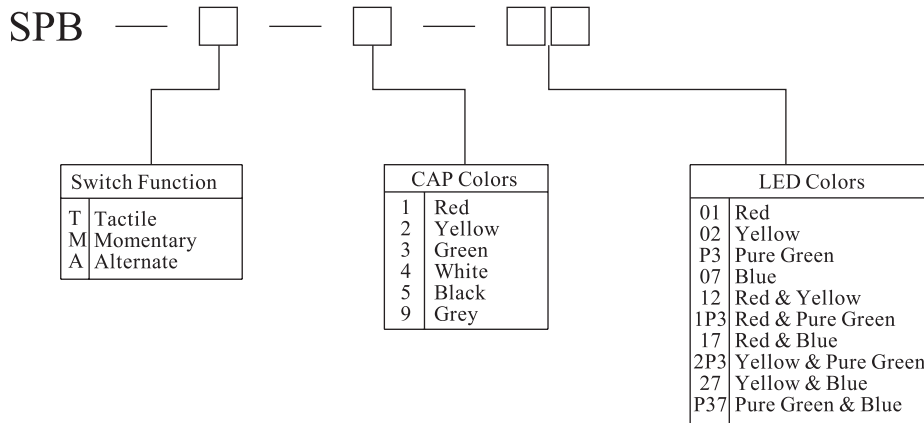
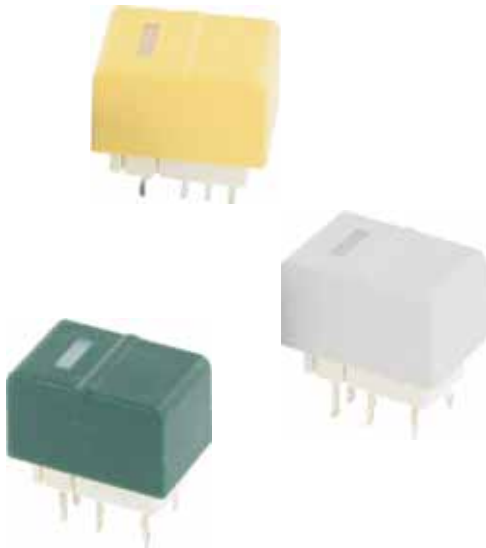


### HOW TO ORDER

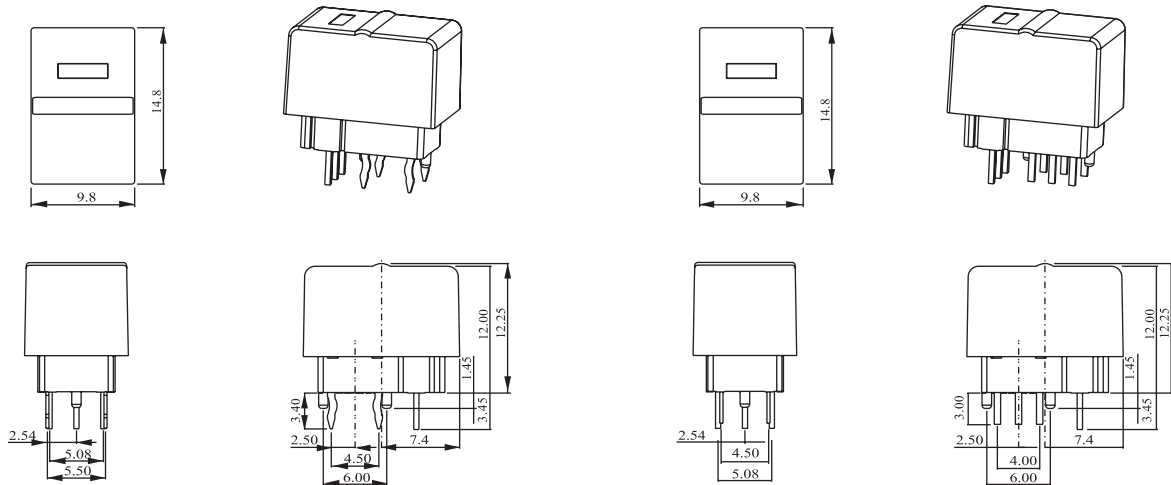


### DIMENSION

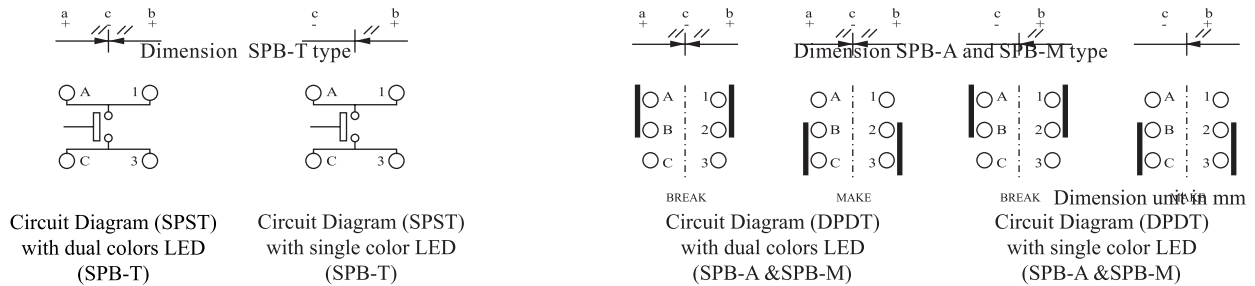


General Specifications		
Item	SPB-A Type & SPB-M Type	SPB-T Type
Circuit	DPDT	SPST
Current Rating	100mA	50mA.
Voltage Rating	30V DC	12V DC
Contact Resistance	100m Ohm Max(initial)	100mOhm Max(initial)
Insulation Resistance	100M Ohm Min at DC 500V	100MOhm Min
Operating Force	200gf±80gf	180gf±50gf
Total Travel	Max. 2.5mm; Lock 1.5mm	0.3mm ±0.2mm
Operating Life	10,000 Cycles Min.	800,000 Cycles Min.
Solder Specifications	260deg. for 3 seconds	260deg. for 3 seconds
Operating Temperature	-10deg~+65deg	-10deg.~+60deg.
Function	Momentary or Alternate	Tactile
LED Rating	See the table below	See the table below

Materials	
Parts	Type
SPB-A Type & SPB-M Type	
S/W Button	Polyacetal (POM)
S/W Base	Polyamide (PA)
S/W Terminal	Brass with silver plating
Contact	Phosphor bronze (PBS) with silver plating
Spring	Piano Wire
Housing	Polyamide (PA)
Cap	Acrylonitrile Butadine Styrene (ABS)
Diffuser	Polycarbonate (PC)
SPB-T Type	
S/W Button	Polyacetal (POM)
S/W Base	Polyamide (PA)
S/W Terminal	Brass with silver plating
Act. Dome	Stainless steel with silver plating
Spring	Piano Wire
Housing	Polyamide (PA)
Cap	Acrylonitrile Butadine Styrene (ABS)
Diffuser	Polycarbonate (PC)

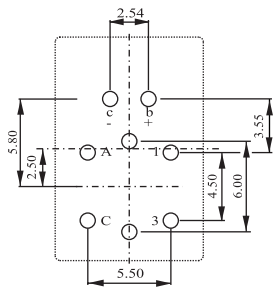


### PCB MOUNTING & CONTACT CONFIGURATION



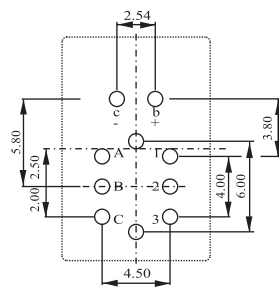
Dimension unit in mm

### PCB MOUNTING HOLES

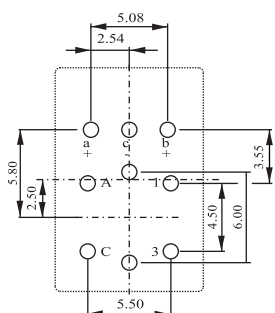


PC.B. Mounting Holes  
SPB-T (Single color LED)

LED's colour Terminal Position	
Single Color	
Red	cb
Yellow	cb
Pure Green	cb
Blue	cb

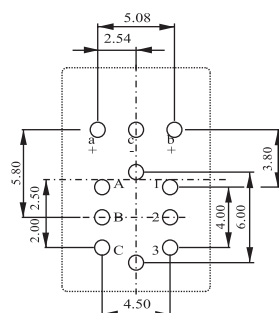


PC.B. Mounting Holes  
SPB-A & SPB-M (Single color LED)



PC.B. Mounting Holes  
SPB-T (Dual colors LED)

LED's colour Terminal Position	
Dual Colors	
Red-Yellow	ac-bc
Red-Pure Green	ac-bc
Red-Blue	ac-bc
Yellow-Pure Green	ac-bc
Yellow-Blue	ac-bc
Blue-Pure Green	ac-bc



PC.B. Mounting Holes  
SPB-A & SPB-M (Dual colors LED)

### LED CHARACTERISTICS

The electrical specifications shown are determined at a basic temperature of 25°. If the source voltage exceeds the rated voltage of LED, a ballast resistor must be connected in series with the LED.

LED Characteristics

Single color	Forward Voltage $V_f$ (V) at 20mA	Forward Current $I_f$ (mA)	Reverse Voltage $V_R$ (V)	Reverse Current $I_R$ ( $\mu$ A) at $V_R=5V$
Red	1.6~1.9	20 mA	5V	10 $\mu$ A max.
Yellow	1.7~2.1			
Pure Green	2.8~3.3			
Blue	2.8~3.3			
Bicolor LED				
Red & Yellow	Red 1.6~1.9 Yellow 1.7~2.1			
Red & Pure Green	Red 1.6~1.9 Pure Green 2.8~3.3			
Red & Blue	Red 1.6~1.9 Blue 2.8~3.3			
Yellow & Pure Green	Yellow 1.7~2.1 Pure Green 2.8~3.3			
Yellow & Blue	Yellow 1.7~2.1 Blue 2.8~3.3			



Attention: LED are electrostatic sensitive devices

