



Shan Pu

Push button Switches Series SPA



SPAA & SPAM

General Specifications

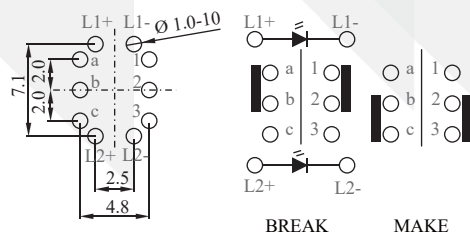
Switch circuit	: DPDT
Switch contact rating	: 100mA @ 30V DC max
LED rating	: Limited forward current(IF) at 20mA max
Contact Resistance	: 100m Ohm Max.(initial)
Insulation Resistance	: 100M Ohm Min at DV 500V
Operating Force	: 200±80gf
Total Travel	: Max. 2.5mm ; Lock 1.5mm
Mechanical Life	: 10,000 Cycles Min.
Operating Temperature	: -10 °C ~ +65 °C
Function	: Momentary or Alternate

SPAT

Switch circuit	: SPST-NO
Switch contact rating	: 50mA @ 12V DC max
LED rating	: Limited forward current(IF) at 20mA max
Contact Resistance	: 100m Ohm Max.(initial)
Insulation Resistance	: 100M Ohm Min at DV 500V
Operating Force	: 180±50gf
Total Travel	: 0.3±0.2 mm
Mechanical Life	: 800,000 Cycles Min.
Operating Temperature	: -10 °C ~ +60 °C
Function	: Tactile

Circuit & PCB Layout

/ SPAA & SPAM

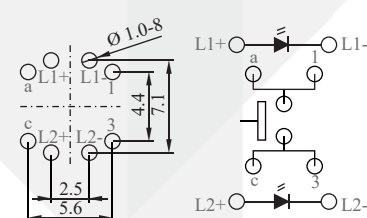


P.C. Board layout

Contact Configuration

Recommend add resistor to limited each LED forward current at 20mA

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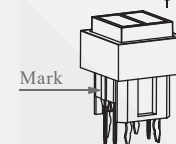
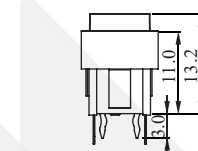
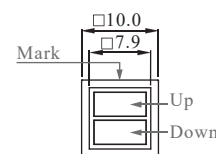
P.C. Board layout

Contact Configuration

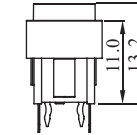
Recommend add resistor to limited each LED forward current at 20mA

Dimension

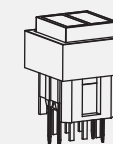
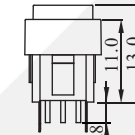
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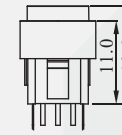
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How to order

SPA

Switch Function	
T	Tactile
M	Momentary
A	Alternate

Housing Type

SA	
CA	

Diffuser Colors

Code	Up	Down
2V12	Red	Yellow
2V13	Red	Green
2V14	Red	White
2V23	Yellow	Green
2V24	Yellow	White
2V34	Green	White
2V44	White	White
2V17	Red	Blue
2V27	Yellow	Blue
2V37	Green	Blue
2V47	White	Blue

LED Colors

Code	Up	Down
12	Red	Yellow
13	Red	Green
14	Red	White
17	Red	Blue
23	Yellow	Green
24	Yellow	White
27	Yellow	Blue
34	Green	White
37	Green	Blue
47	White	Blue