

5A series Specification

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1. Style

This specification describes Snap-Acting Pushbutton Switches , mainly used as signal switch of electric devices, with the general requirements of mechanical and electrical characteristic.

Operating Temperature Range : -30 °C~+85°C.

2. Contact Rating:

2.1 Silver Plating Standard :

Plating		Rating
Silver	Fixed Terminal : Silver plated over copper alloy. Movable contact : Silver plated over copper alloy.	3Amps @120VAC or 28VDC. 1Amps @250VAC.
Gold over silver	Fixed Terminal : Copper alloy with silver plated over gold plate. Movable contact : Copper alloy with silver plated over gold plate.	
Silver, tin-lead	Fixed Terminal : Copper alloy with silver plated ,tin-lead. Movable contact : Silver plated over copper alloy.	
Gold over silver tin-lead	Fixed Terminal : Copper alloy with silver plated over gold plate, tin-lead. Movable contact : Copper alloy with silver plated over gold plate.	

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2.2 Gold Plating Standard :

Plating		Rating
Gold	Fixed Terminal : Copper alloy with gold plate over nickel plate.	0.4 VA Max. @20VAC or DC Max.
	Movable contact : Copper alloy with gold plate over nickel plate.	
Gold,tin-lead	Fixed Terminal : Copper alloy with gold plated over nickel plate, tin-lead.	
	Movable contact : Copper alloy with gold plated over nickel plate.	

3.Type of Actuation: Snap-Acting Pushbutton Switches.

4. Test Sequence:

ELECTRIC PERFORMANCE	ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
	1	Visual Examination	By Visual Examination check without and out pressure & testing.	There shall be no defects that affect the serviceability of the product.
	2	Contact Resistance	@2-4VDC 100mA. For both silver and gold plated contacts.	20mΩ Max
	3	Insulation Resistance	Measurements shall be made following application of 1000 V/DC 100mA potential across terminals and cover.	1000MΩ min/1000V
	4	Dielectric Withstanding Voltage	1000 VAC(50Hz or 60Hz) shall be applied across terminals and cover for 1 minute.	There shall be no breakdown or flashover.

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	ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
MECHANICAL PERFORMANCE	5	Solder Heat Resistance	Through Hole Type ■ WAVE SOLDERING : ① Soldering Temperature: $260 \pm 5^{\circ}\text{C}$. ② Duration of Solder Immersion: 5 ± 1 seconds ③ Frequency of Soldering Process 2 times max. (PCB is 1.6mm in thickness)	① Shall be free from pronounced backlash and falling-off or breakage terminals. ② As shown in item 2~4.
	6	Vibration	Shall be vibrated in accordance with Method 201A of MIL-STD-202F ① Frequency: 10-55-10Hz in 1-min/cycle. ② Direction: 3 vertical directions including the directions of operation ③ Test time: 2 hours each direction.	As shown in item 2~4
	7	Shock	Shall be shocked in accordance with Method 213B condition A of MIL-STD-202F ① Acceleration; 5kg ② Action time: $11 \pm 1\text{m}$ seconds. ③ Testing Direction: 6 sides. ④ Test Cycle: 3 times in each direction.	As shown in item 2~4
	8	Actuation Force	① MODEL-1305N MECHANICAL TEST 500gram、1000gram、2000gram. ② Stroke : $1.0 \pm 0.2\text{mm}$	① At for test the force. Force: $300 \pm 100\text{grams}$. ② Stroke : $1.0 \pm 0.2\text{mm}$
OPERATING LIFE	9	Operating Life	Measurements shall be made following the test forth below: ① 3A, 120VAC resistive load—silver plated. 1A, 250VAC resistive load—silver plated 0.4A, 20VAC resistive load—gold plated. ② Rate of Operation: 6-8operation cycles per minute. ③ Electronics Life Test: 6,000 cycles.	① Dielectric Strength : 1000V. ② Insulation Resistance: 1000M Ω min.
			Mechanical Life Test: 50,000 cycles.	Contact Resistance: 20m Ω Max.

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HUMIDITY RESISTANCE	ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
	10	Resistance Low Temperature	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 1 hour before the measurements are made: ①Temperature: $-40 \pm 3^{\circ}\text{C}$ ②Time:96 hours.	As shown in item 2~4.
	11	Resistance High Temperature	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before the measurements are made: ①Temperature: $85 \pm 2^{\circ}\text{C}$ ②Time:96 hours.	① As shown in item 3~4. ② Insulation Resistance: $1000\text{M}\Omega$.
	12	Resistance Humidity	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before the measurements are made: ①Temperature: $40 \pm 2^{\circ}\text{C}$ ②Relative Humidity:90~95% ③Time:96 hours.	①Contact Resistance: $20\text{m}\Omega$ Max. ②Insulation Resistance: $1000\text{M}\Omega$ min.
	13	The Salt Testing	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before the measurements are made: ①Temperature: $35 \pm 2^{\circ}\text{C}$ ②The ratio of salt-water : 5% ③The spray amout of salt- water : 1~2 ml/h. ④ Time:48 hours.	The testing standard based on bubble, crack, And magnifying glass with gauge.

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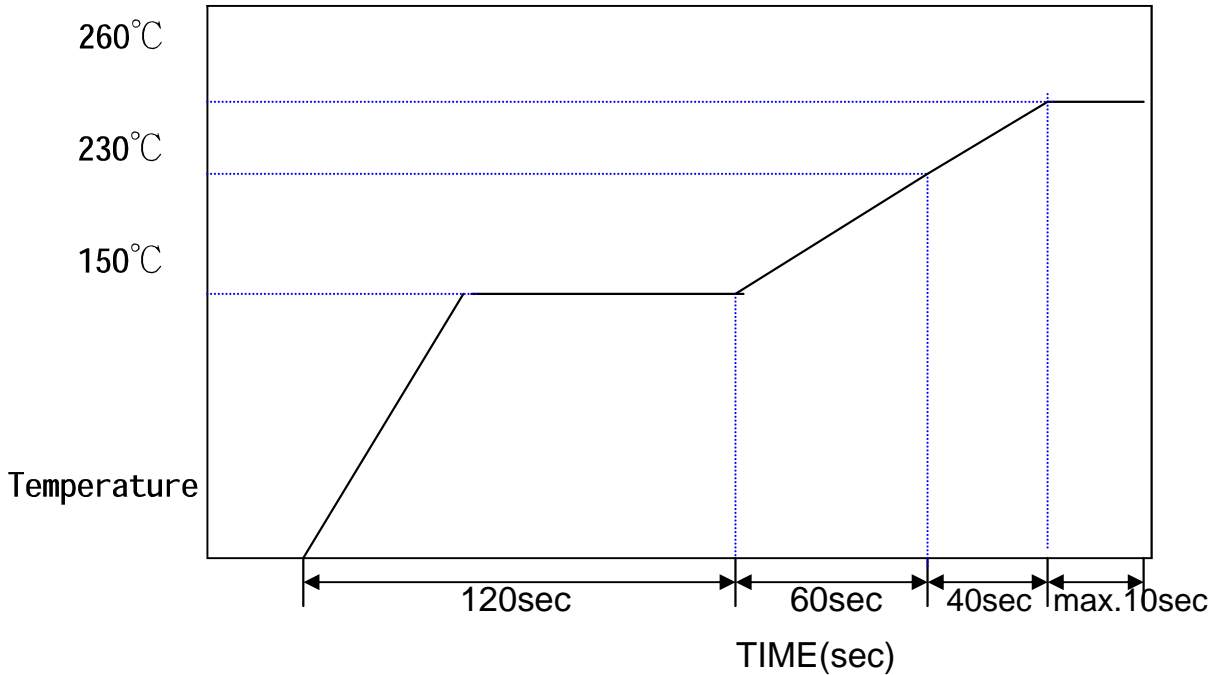
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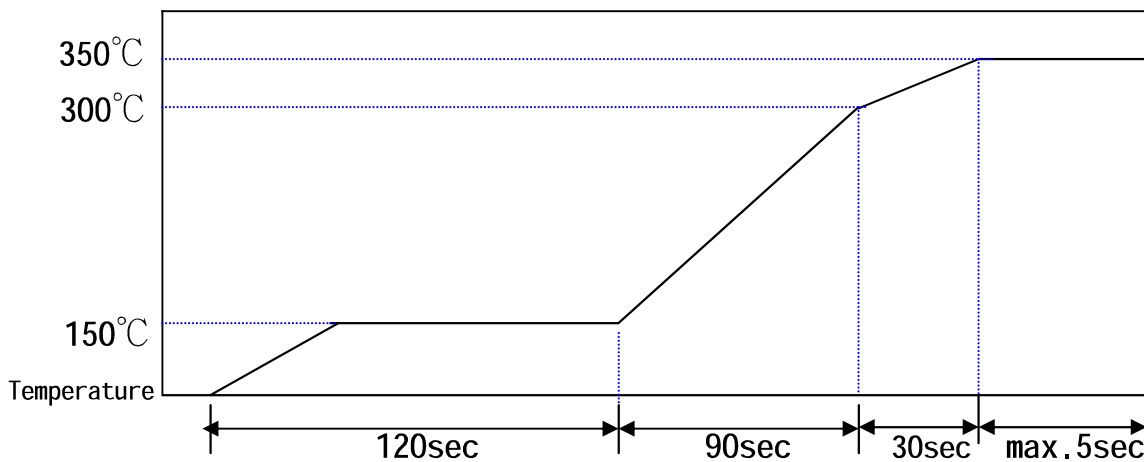
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5. SOLDERING CONDITIONS:



Soldering Temperature	Max. 350°C
Continuous Soldering Time	Max. 5 seconds

Manual Soldering



Precautions in Handling

Care should be exercised so that flux from the upper part of the printed circuit board does not adhere to the switch.