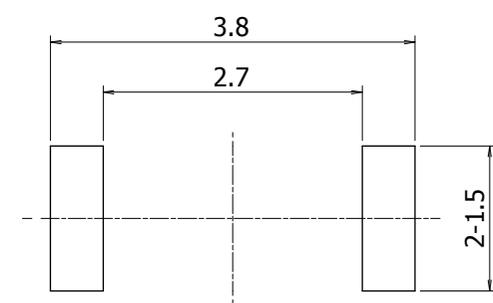
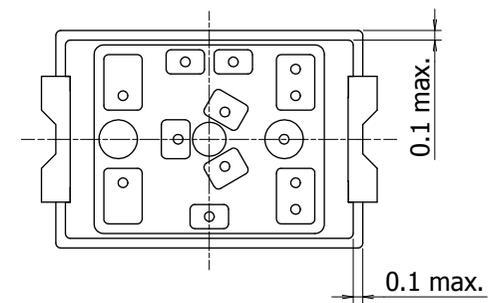
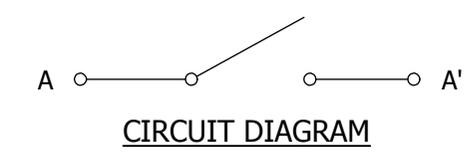
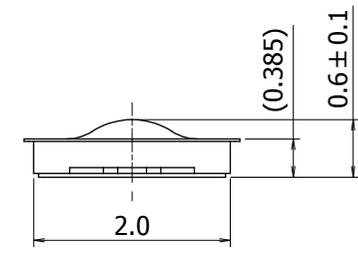
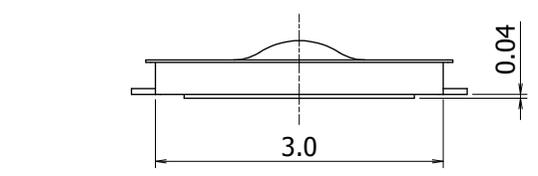
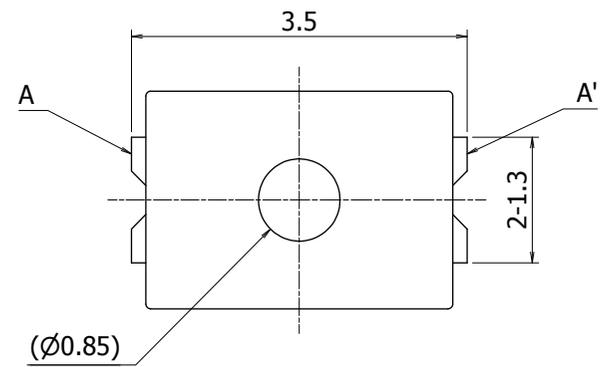


RevNO.	Revision note	Date	Signature



PCB SOLDER LAND DIMENSIONS

NOTE

1. RATING : DC15V 20mA
2. CONTACT RESISTANCE : 500mΩ max.
3. TRAVEL : 0.13±0.05mm
4. GENERAL TOLERANCE : ±0.3
5. MANUFACTURING SPECIFICATION WOULD BE ACCORDANCE WITH JT 0171

JTP-3020H	110013020130	160±50gf	500,000	BLACK	
JTP-3020	110013020132	240±70gf	500,000	BLACK	
JTP-3020W	110013020134	330±70gf	300,000	BLACK	
Model name	Code no	O/Force	Life cycles	T/Case color	Remarks

Designed by B.SAGONG		Unit	mm	Scale	18/1	Date	2015.05.12
Checked by T.H.OH		Tool	In	Sheet	1	Rev.	0
Approved by H.W.YUN	Item		TACTILE S/W		Drawing name		
	Model		JTP-3020 SERIES		ASS'Y DIAGRAM		

	SPECIFICATION	PAGE
	TACT SWITCH	1 / 5

1. GENERAL

1.1 Application : This specification is applied to low current circuit tactile switch for electronic equipment.

1.2 Operating temperature range : -40~ 85°C (Normal humidity, Normal air pressure)

1.3 Storage temperature range : -40 ~ 85°C (Normal humidity, Normal air pressure)

1.4 Test conditions : The standard test conditions shall be 5 ~ 35°C in temperature, 25 ~ 85% RH and 860 ~ 1060mbar in atmospheric pressure. Should any doubt arise in judgement, tests shall be conducted at 20±2°C, 65±5% RH and 860 ~ 1060mbar.

2. RATED VOLTAGE AND CURRENT.

DC 15V 20mA

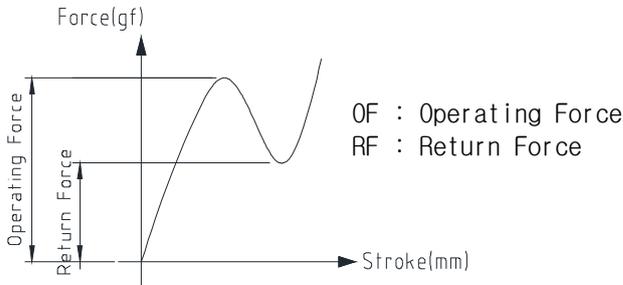
3. ELECTRICAL PERFORMANCE

	PROPERTY	TEST CONDITIONS	PERFORMANCE
3.1	Contact arrangement		* 1 pole, 1 throw.
3.2	Contact resistance	Measured at DC 5V 10mA or by ohmmeter allowing a small current at 1kHz with 150% of Actuating force.	* 500mΩ Max.
3.3	Insulation resistance	DC 100V is applied between terminals and between terminals and earth for 1minute ±5seconds.	* 50MΩ Min.
3.4	Dielectric strength	AC 250V (50 ~ 60Hz)is applied between terminals and between terminals and earth for 1 minute.	* No insulation defect shall be observed.
3.5	Bounce	Measured by lightly striking the center of the button stem at a rate of 3 operations/sec.	* 10 msec Max.

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4. MECHANICAL PERFORMANCE

	PROPERTY	TEST CONDITIONS	PERFORMANCE
4.1	Operating force	A gradually increasing load is applied to the center of the button stem.	* As per individual manufactured drawing.
4.2	Return force	After actuating, the load is gradually decreased until the stem returns to its free position.	* 10gf Min.
4.3	Click ratio	Click ratio : $(OF-RF)/OF \times 100$  OF : Operating Force RF : Return Force	* There shall be provided only initial value. 40% Min.
4.4	Push strength	A static force of 5Kgf shall be applied to the direction of operation for 15 seconds.	* Shall be free from mechanical and electrical abnormalities.
4.5	Side push strength	A static force of 300gf shall be applied to the vertical direction of operation for 15 seconds after 2 times reflow	* Shall be free from mechanical and electrical abnormalities.
4.6	Travel		* 0.13 ± 0.05 mm
4.7	Arrangement		* Tactile feed-back.

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5. DURABILITY

	PROPERTY	TEST CONDITIONS	PERFORMANCE
5.1	Operating life	<p>Measurements shall be made following the test set forth below :</p> <p>(1) DC 15V 20mA resistive load (2) Rate of operation : 2 ~ 3 times per second (3) Depression : Maximum value of operating force (4) Cycles of operation : As per individual manufactured drawing.</p>	<ul style="list-style-type: none"> * Contact resistance : 20Ω Max * Bounce : 30m sec Max. * Operating force : within ± 30% of the initial value. * The requirement in item 3.3, 4.6 shall be satisfied.

6. WEATHER PROOF

	PROPERTY	TEST CONDITIONS	PERFORMANCE
6.1	Cold heat proof	<p>After testing at $-40\pm 2^{\circ}\text{C}$ for 96hours, the sample is allowed to stand under normal temperature and humidity conditions for 1 hour and measurement is performed within 1 hour after that.</p> <p>Waterdrops should be removed.</p>	<ul style="list-style-type: none"> * Contact resistance : 1Ω Max. * The requirement in item 3.3, 3.4, 3.5, 4 shall be satisfied.
6.2	Dry heat proof	<p>After testing at $85\pm 2^{\circ}\text{C}$ for 96hours, the sample is allowed to stand under normal temperature and for 1 hour and measurement is performed within 1 hour after that.</p>	
6.3	Damp heat proof	<p>After testing at $60\pm 2^{\circ}\text{C}$ and 90 ~ 95% in relative humidity for 96hours, the sample is allowed to stand under normal temperature and humidity conditions for 1 hour and measurement is performed within 1 hour after that.</p> <p>Waterdrops should be removed.</p>	

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6.4	Thermal cycling	<p>After the test conducted under 5 cycles the sample is allowed to stand under normal temperature and humidity conditions for 1 hour and the measurement is performed within 1 hour.</p>	<ul style="list-style-type: none"> * Contact resistance : 1Ω Max. * The requirement in item 3.3, 3.4, 3.5, 4 shall be satisfied.
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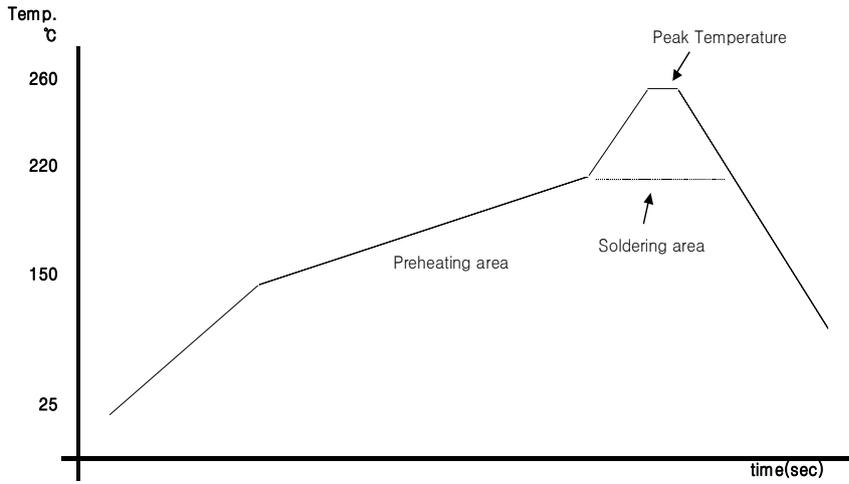
6.5	Salt mist	<p>Switch shall be checked after following test</p> <ol style="list-style-type: none"> (1) Temperature : 35±2°C (2) Salt solution : 5±1%(Solids by weight) (3) Duration : 2 hr spray & 22 hr pause(Total 72 hr) (4) Leaving time after test : 1 hours (5) After the test, salt deposit should be removed in water and waterdrops should be removed. 	<ul style="list-style-type: none"> * No remarkable corrosion shall be recongnized in metal part.
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7.1 Reflow soldering conditions

- 1) Preheat ----- 150°C ~ 200°C, 120 ±20 (sec)
- 2) Peak temperature --- 260°C Max. 10 (sec)
- 3) Soldering area temperature ----- 217°C, 90 ~ 120 (sec)
- 4) The thickness of cream solder : 0.08mm



< Temperature profile >

7.2 Manual soldering conditions

- 1) Soldering temperature : 350°C Max.
- 2) Soldering time : 3 (sec) Max.

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