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1. GENERAL MATTERS

- 1.1 Application: This specification is applied to low current circuit tactile switch for electronic equipment.
- 1.2 Operating temperature range : $-20 \sim 70^{\circ}$ C, $45 \sim 85\%$ RH
- 1.3 Storage temperature range : $-30 \sim 80 \,^{\circ}$ C. However, 96 hours maximum for continuous storage over a range $-20 \sim -30 \,^{\circ}$ C and a range $70 \sim 80 \,^{\circ}$ C.
- 1.4 Test conditions : The standard test conditions shall be 5 \sim 35 $^{\circ}$ C in temperature, 45 \sim 85% RH and 860 \sim 1060mbar in atmospheric pressure.

Should any doubt arise in judgement, tests shall be conducted at $20\pm2\,^{\circ}$ C, 65±5% RH and 860 \sim 1060mbar.

2. RATED VOLTAGE AND CURRENT.

As per individual manufactured drawing.

3. ELECTRICAL PERFORMANCE

	PROPERTY	TEST CONDITIONS	PERFORMANCE
3.1	Contact arrangement		* 1 pole, 1 throw.
3.2	Contact resistance	Measured at DC 5V 10 ^{mA} or by ohmmeter allowing a small current at 1KHz with a load of 150% of the actuating force.	* As per individual manufactured drawing.
3.3	Insulation resistance	DC 100V is applied between terminals and between terminals and earth for 1 minute ±5 seconds.	* Greater than 100 MΩ.
3.4	Dielectric strength	AC 250V (50 \sim 60Hz) is applied between terminals and between terminals and push 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···	* less than 10 msec.

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4. MECHANICAL PERFOMANCE

	PROPERTY	TEST CONDITIONS	PERFORMANCE
4.1	Actuating 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.	* 160gf,180gf,250gf,260gf: greater than 50gf. '* 100gf,130gf: greater than 30gf.
4.3	Stop strength	A static force of 3 Kgf shall be applied to the direction of operation for 3 seconds.	* Shall be free from mechanical and electrical abnormalities.
4.4	Stem withdrawal force	A static load of 500gf is applied to the direction of pulling for 3 seconds.	* Shall be free from mechanical and electrical degradation.
4.5	Travel		* As per individual manufactured drawing.
4.6	Arrangement of action		* Tactile feed-back.

5. DURABILITY

	PROPERTY	TEST CONDITIONS	PERFORMANCE
5.1	Operating life	The test in conducted according to the below. (1) DC 5V 5mA resistive load. (2) Rate of operation: 60 cycle/min (3) Actuating force: 150% of actuating force (4) Operating cycle: As per individual manufactured drawing.	* Contact resistance: 500mΩ maximum. * Bounce: 20m sec max. * Actuating force: within ± 30% of the initial value. * Insulation resistance: 10 MΩ minimum.

6. WEATHER PROOF

6.1		After testing at -30 ℃ for 96hours. the sample is allowed to stand under normal temperature and humidity conditions for 1hour and measurement is performed within 1hour after that. Water drops should be wiped off.	* The requirement in item 3 and 4 shall be satisfied.
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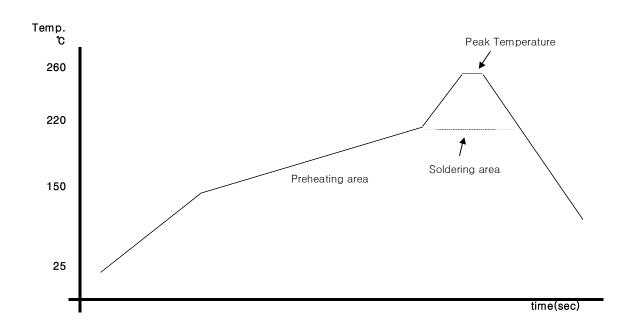
	PROPERTY	TEST CONDITIONS	PERFORMANCE
6.2	Dry heat proof	After testing at 85°C for 96hours. the sample is allowed to stand under normal temperature for 1hour and measurement is performed within 1 hour after that.	* The requirement in item 3 and 4 shall be satisfied.
6.3	Damp heat proof	After testing at 60±2°C and 90 ~ 95% in relative humidity for 96hours, the sample is allowed to stand under normal temperature and humidity conditions for 1hour and measurement is performed within 1hour after that. Water drops should be wiped off.	* Insulation resistance: 10 MΩ minimum * Dielectric strength: same as item 3.4. * Contact resistance: same as item 3.2.
6.4	Thermal cycling	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.	* The requirement in item 3 and 4 shall be met.

7. REFLOW SOLDERING

- 7.1 Reflow soldering conditions
 - 1) Preheat ----- 150°C \sim 200°C, 120 ±20 (sec)
 - 2) Peak temperature --- 260°C max. 10 (sec)
 - 3) Soldering area temperature ----- 217° C, $90 \sim 120$ (sec)

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< Temperature profile >

8. Manual soldering

- 8.2 Soldering time ----- 5(sec)

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재질증명서 (CERTIFICATION OF MATERIAL)

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결 재			

일 자 DATE	2015.06.19
제품명 ITEM	TACT SWITCH
제품 번호 MODEL No.	JT1107MJEM

상기 제품은 하기재료를 사용하고 있음을 증명합니다. (The above item is certified to use with following materials.)

No.	구성부품명		원 재 료 (Ma	aterial)	난연성	UL	색상	
	(Part name)	Material name	Treatment	Manufacturer	Nationality	(Flame cless)	(File No.)	(Color)
1	CASE	LCP		POLYPLASTICS	JAPAN	UL 94V-0	E106764	BLACK
2	TERMINAL	BRASS	Ag Plating	CHINALCO	CHINA			
3	DOME CONTACT	STAINLESS STEEL	Ag clad	CHANGSUNG	KOREA			
4	STEM	PPA		SOLVAY	U.S.A	UL 94V-0	E95746	BLACK
5	COVER	STAINLESS STEEL		SAMSUNG	KOREA			
6	TAPE	PI FILM		J I ABANG	CHINA			
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