

SPECIFICATION	PAGE
TACT SWITCH	1 / 4

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 °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 ~ 35°C in temperature, 45 ~ 85% RH and 860 ~ 1060mbar in atmospheric pressure.
 Should any doubt arise in judgement, tests shall be conducted at 20±2°C,

 $65{\pm}5\%$ RH and $860 \sim 1060 mbar.$

2. RATED VOLTAGE AND CURRENT.

As per individual manufactured drawing.

	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 1minute ±5seconds.	* Greater than 100 MΩ.
3.4	Dielectric strength	AC 250V (50 \sim 60 ^{Hz}) 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.

3. ELECTRICAL PERFORMANCE

						APPD	CHKD	DSGN	TITLE	
									DOCUMENT NO.	WT 0160
ZONE	SYMB	DATE	APPD	CHKD	DSGD					VVI 0100

SPECIFICATION	PAGE
TACT SWITCH	2 / 4

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

PROPERT	Y TEST CONDITIONS	PERFORMANCE
5.1 Operating li	 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.
-----	--	---	---

						APPD	CHKD	DSGN	TITLE	
									DOCUMENT NO.	WT 0160
ZONE	SYMB	DATE	APPD	CHKD	DSGD					W T 0100

SPECIFICATION	PAGE
TACT SWITCH	3 / 4

	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 $90 \sim 95\%$ 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. 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 $^\circ\!\!\!C$ \sim 200 $^\circ\!\!\!C$, 120 \pm 20 (sec)
 - 2) Peak temperature --- 260°C max. 10 (sec)
 - 3) Soldering area temperature ----- 217°C, 90 ~ 120 (sec)

						APPD	CHKD	DSGN	TITLE
								L. Y. D	DOCUMENT NO. WT 0160
ZONE	SYMB	DATE	APPD	CHKD	DSGD				WI 0180

SPECIFICATION	PAGE
TACT SWITCH	4 / 4





8. Manual soldering

- 8.1 Soldering temperature ----- $350^{\circ}C \pm 5^{\circ}C$
- 8.2 Soldering time ----- 5(sec)

						APPD	CHKD	DSGN	TITLE		
									DOCUMENT NO.	WT 0160	
ZONE	SYMB	DATE	APPD	CHKD	DSGD					**** 0100	

재질증명서 (CERTIFICATION OF MATERIAL)

	작 성	검 토	승 인
결 재			
×Π			

일 자 DATE 2015.06.19 제품명 ITEM TACT SWITCH

제품 번호 JT1107MJEM MODEL No. JT1107MJEM

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

	1	1				1	1	
No.	구성부품명	원재료(Material)				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	РРА		SOLVAY	U.S.A	UL 94V-0	E95746	BLACK
5	COVER	STAINLESS STEEL		SAMSUNG	KOREA			
6	TAPE	PI FILM		J I ABANG	CHINA			
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

