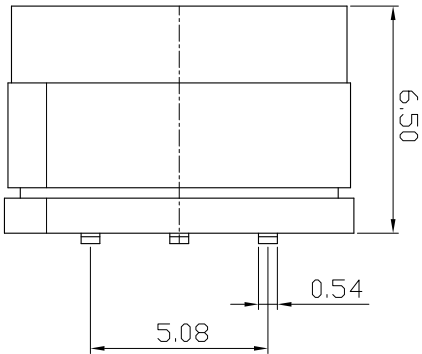
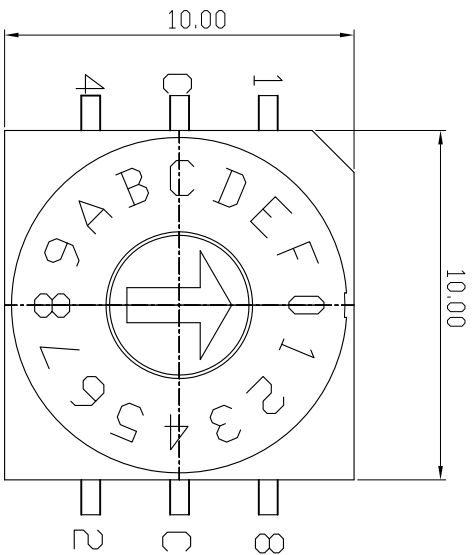


MARK	DATE	REMARKS
△		
△		



SPECIFICATION

1.MECHANICAL DATA

PERMISS. AMBIENT TEMP. -40°C - +85°C  
TORQUE MIN. 0.7Ncm  
MECH. LIFETIME MIN. 10° STEPS  
POSITIONS PER ROTATION  
10, 16(NON-SELF-LOCKING)

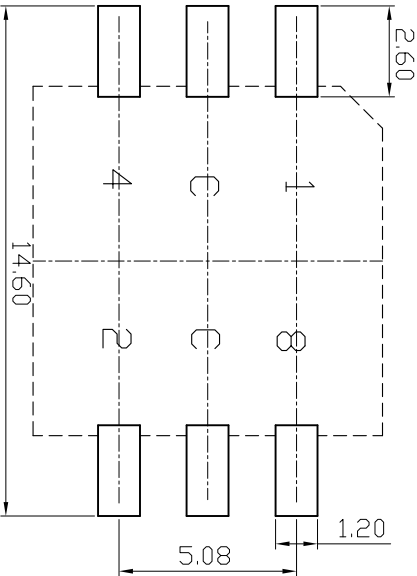
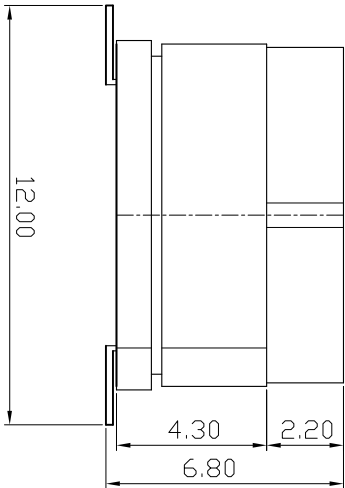
2. ELECTRICAL DATA

OPERATING VOLTAGE <=42V  
CONTACT LOAD, STATIC <= 0.2A  
CONTACT LOAD, DYNAMIC <= 0.15A  
NORMAL AND TEST VOLTAGE 250V 50Hz/1min  
CONTACT RESISTANT < 80mΩmm  
INSULATION RESISTANCE > 100MΩmm

3. SOLDER RECOMMENDATIONS

SOLDER IRON MAX. 2s/340°C  
SOLDER BATH MAX. 10s/260°C

4. LIFE Cycle : 10,000 Steps



P.C.B DIMENSION

		Real Code							
		0	1	2	4	8			
16 P C B C O D E	0	●							
	1	●	●						
	2	●		●					
	3				●				
	4	●				●			
	5	●	●						
	6	●					●		
	7	●						●	
	8	●	●						●
	9	●							
	A	●	●						●
	B	●					●		●
	C	●						●	●
	D	●	●						●
	E						●	●	●
	F	●							●

APPD		CHKD		D'SGD		TITLE	
YD WANG		J.S KIM		H.S LEE		ROTARY DIP SWITCH	
				MODEL NO.		MER-16S	
						REV    A	
						SM SWITCH CO., LTD.	

# ROTARY DIP SWITCH SPECIFICATION

Rev. B  
P:1/4

## 1. Style:

This specification describes "Rotary Switch" mainly used as signal switch of electric devices with the general requirements of mechanical and electrical characteristics.

1.1 Operating / Storage Temperature Range : -40℃ ~ +85℃

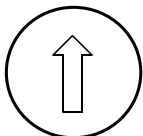
## 2. Current Range:

2.1 None-Switching : 200 mA, 42V

2.2 Switching : 150 mA, 42V

## 3. Type of Actuation : Rotating

## 4. Test Sequence :

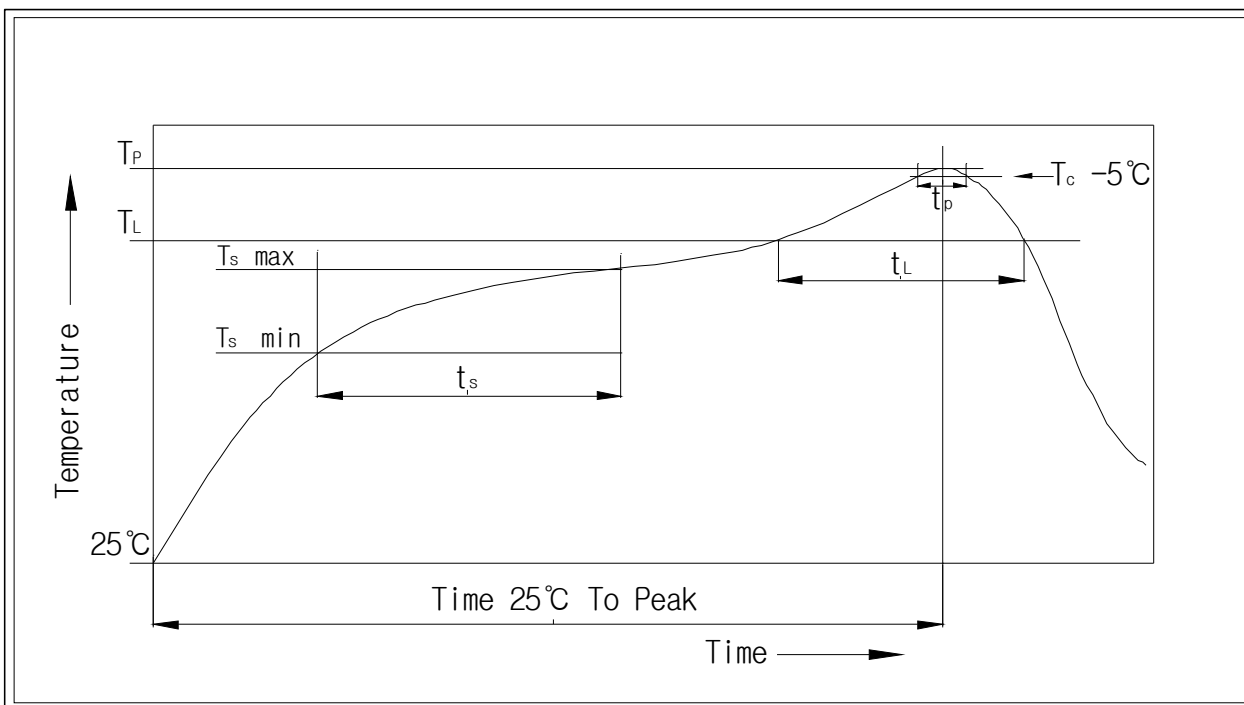
E L E C T R I C  P E R F O R M A N C E	ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
	1	Visual Examination	By visual examination check without any out pressure & testing.	There shall be no defects that affect the serviceability of the product
	2	Contact Resistance	① To be measured between the two terminals associated with each switch pole ② Measurements shall be made with a 1kHz shall current contact resistance meter	80mΩ max.(initial)
	3	Insulation Resistance	250V DC, 1minute ±5seconds	100MΩ min
	4	Dielectric withstanding Volotage	250V AC(50Hz or 60Hz)shall be applied between all the adjacent terminal and between the terminal and the frame For 1 minute	There shall be no breakdown or flashover
M A C H I N	5	Operation Force	Applied in the direction of operation 	700gf/cm. max

# ROTARY DIP SWITCH SPECIFICATION

Rev. B  
P: 2/4

P E R F O R M A N C E	6	Operation Life	Measurements shall be made following the test set forth below: 1)150mA, 42V DC resistive load 2)Rate of operation: 15~20 cycles/ minute 3)Step of operation: 10,000 steps	1)As shown in item 3,4 2)Contact Resistance: 200mΩ max 3)Final-after test
	7	Resistance Low Temperature	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made: 1)Temperature: -60℃ ±3℃ 2)Time: 96 hours	1)As shown in item 3~5 2)Contact Resistance: 200mΩ max
	8	Resistance High Temperature	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made: 1)Temperature: 125℃ ±2℃ 2)Time: 96 hours	1)As shown in item 3~5 2)Contact Resistance: 200mΩ max
	9	Resistance Humidity	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made: 1)Temperature: 40℃ ±2℃ 2)Relative humidity: 90~95% 3)Time: 96 hours	1)As shown in item 4 2)Contact Resistance: 200mΩ max 3)Insulation Resistance: 10MΩ min
W E A T H E R  P R O O F				

## 5. Reflow Soldering Conditions:



### 1) Classification Reflow Profiles

Profile Feature	Pb-Free Assembly
Average Ramp-UP Rate(Ts max to T <sub>P</sub> )	3°C/second max
<b>Preheat</b> <ul style="list-style-type: none"> <li>- Temperature Min(Ts min)</li> <li>- Temperature Max(Ts max)</li> <li>- Time (ts min to ts max)</li> </ul>	150°C 200°C 60-180seconds
<b>Time maintained above:</b> <ul style="list-style-type: none"> <li>- Temperature (T<sub>L</sub>)</li> <li>- Time (t<sub>L</sub>)</li> </ul>	217°C 60-150seconds
Peak/Classification Temperature(T <sub>P</sub> )	260°C +0°C/ -5°C
Time within 5°C of actual Peak Temperature(t <sub>p</sub> )	min 30 seconds
<b>Ramp-Down Rate</b>	6°C/sec max
<b>Time 25°C to Peak Temperature</b>	<b>8 minutes max</b>

6. This item is "ROHS" Compliant

# ROTARY DIP SWITCH SPECIFICATION

Rev. B  
P: 4/4

## 7. Part List

NO	PART NAME	Q'TY	MATERIALS	TREATMENT	REMARK
1	COVER	1	LCP		Print
2	BASE	1			
3	ACTUATOR	1	PA66, STS		
4	CONTACT & TERMINAL	1	PHOSPHOR BRONZE	CONTACT AND TERMINAL PLATING: GOLD PLATING OVER NICKEL	Au 0.07 $\mu$ m Min Ni 0.1 $\mu$ m Min
5	PCB	1	EPOXY	PLATING: GOLD PLATING	Au 0.05 $\mu$ m Min
6	O-Ring	1	SILICONE		