

- 规格书 -

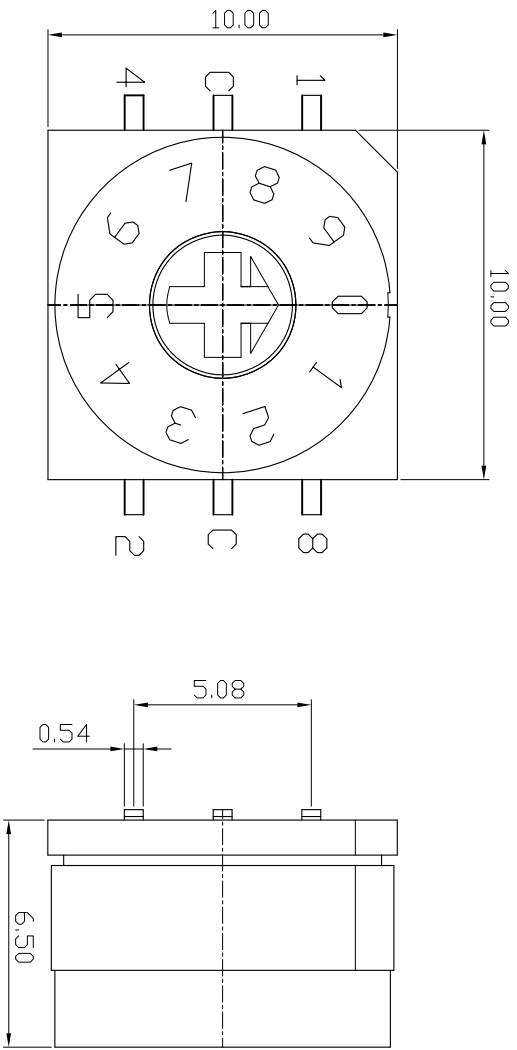
产品型号: MDG-10S

产品名称: 旋转编码开关

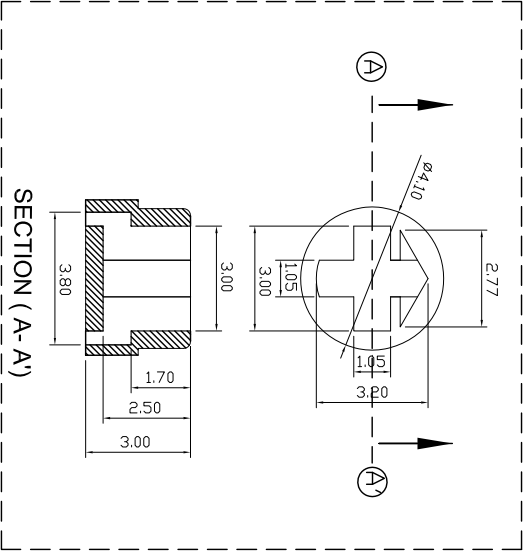
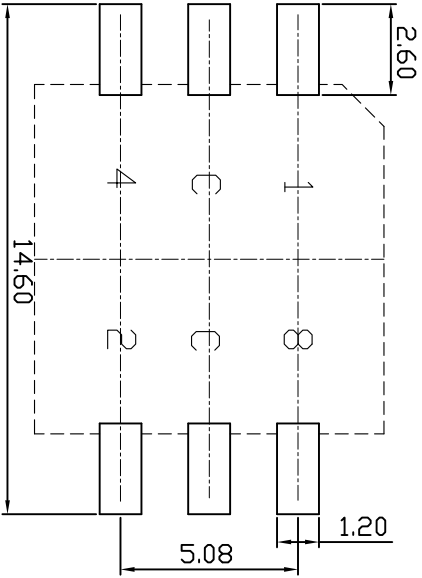
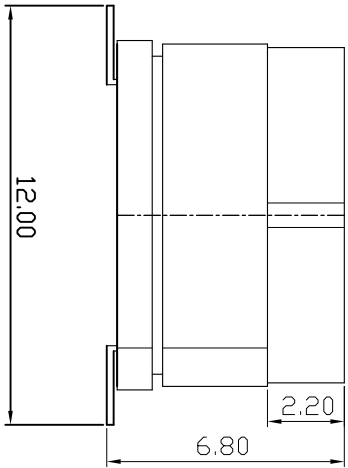
SM SWITCH CO.,LTD

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10 Positions	0	●	●	●	●
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APPD	CHKD	D'SGD	TITLE
YD WANG	J.S KIM	H.S LEE	ROTARY DIP SWITCH
MODEL NO.			MDG-10S
SM SWITCH CO., LTD.			REV A

MINI ROTARY DIP SWITCH SPECIFICATION

Rev. 7
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 : 400 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
	5	Operation Force	Applied in the direction of operation 	120gf ±30gf

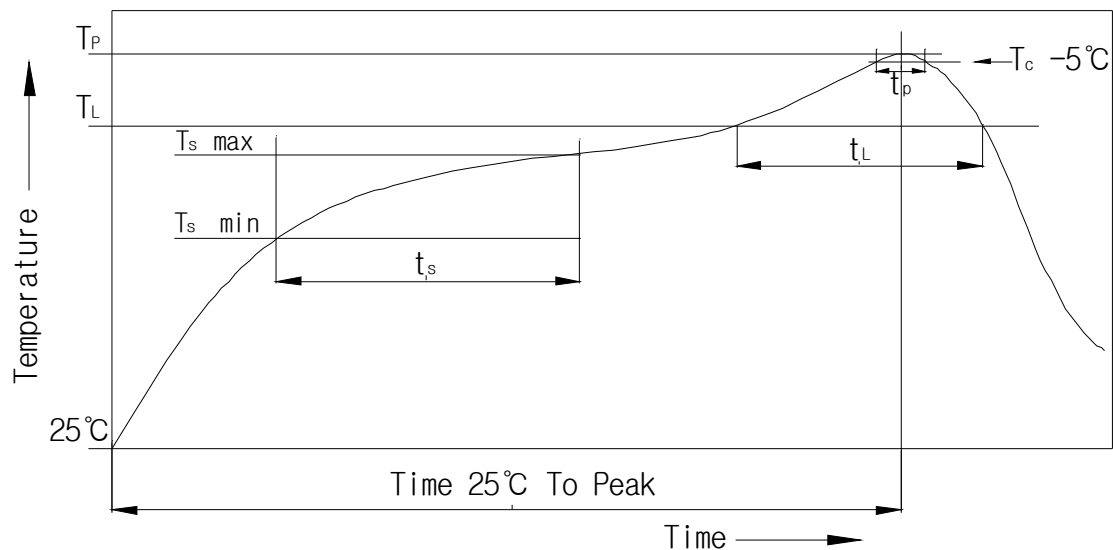


MINI ROTARY DIP SWITCH SPECIFICATION

Rev. 7
P: 2/4

M A C H I N 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)100mA, 42V DC resistive load 2)Rate of operation: 15~20 cycles/ minute 3)Step of operation: 25,000 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	As shown in item 2~5
	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

5. Reflow Soldering Conditions:



1) Classification Reflow Profiles

Profile Feature	Pb-Free Assembly
Average Ramp-UP Rate(Ts max to T _P)	3°C/second max
Preheat - Temperature Min(Ts min) - Temperature Max(Ts max) - Time (ts min to ts max)	150°C 200°C 60-180seconds
Time maintained above: - Temperature (T_L) - Time (t_L)	217°C 60-150seconds
Peak/Classification Temperature(T _P)	260°C +0°C/ -5°C
Time within 5°C of actual Peak Temperature(T _P)	min 30 seconds
Ramp-Down Rate	6°C/sec max
Time 25°C to Peak Temperature	8 minutes max

6. This item is "ROHS" Compliant

7. Part List

NO	Part Name	Q'ty	Materials	Treatment	Remark
1	Cover	1	Stainless Steel		Print
2	Spring Plate	1	Stainless Steel		
3	Guide Plate	1	Stainless Steel		
4	Contact	1	Phosphor Bronze	Plating: Gold	Au 0.03 μ m Min Ni 0.1 μ m Min
5	Terminal	1	Phosphor Bronze	Plating: Gold	Au 0.03 μ m Min Ni 0.3 μ m Min
6	Rotor	1	LCP		
7	Base	1	LCP		
8	O-Ring	1	Silicone		