

DATA SHEET

SUNGMUN CODE : MSKR-16S-TR

DESCRIPTION : MINI ROTARY DIP SWITCH

SUNGMUN ELECTRONICS CO., LTD.

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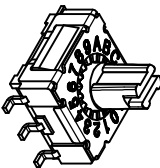
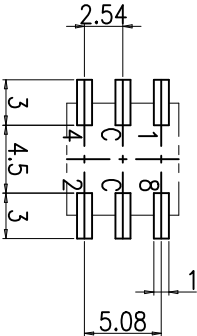
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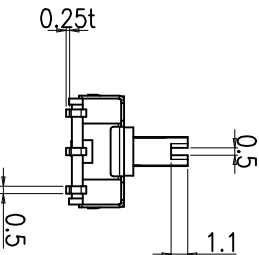
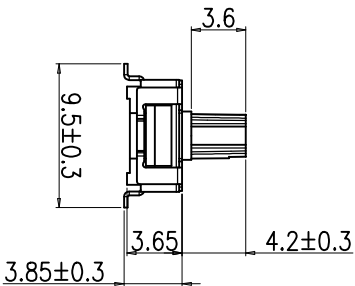
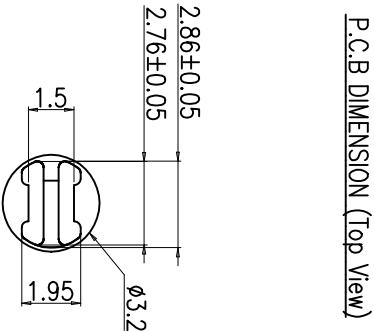
REV NO.	DATE	REVISION	DR	CH	APP
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SPECIFICATION

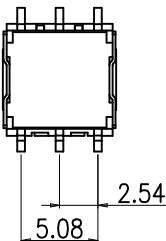
- Rating : 100mA, DC 42V (Switching)
400mA, DC 42V (None-Switching)
- Contact Resistance : 80mΩ Max
- Insulation Resistance : 100MΩ Min
- Operating Force : 120±30gf Max
- Life cycle : 25,000 steps
- Sealing : IP67 (Dust & Water proof)
- Packing : 70pcs Tube / 600pcs Reel Packing



P.C.B DIMENSION (Top View)



ACTUATOR
SCALE : 2/1



Reel Coded								
C	1	2	4	8				
0 ●					0			
1 ●	●				1			
2 ●		●			2			
3 ●		●	●		3			
4 ●			●		4			
5 ●	●		●		5			
6 ●		●	●		6			
7 ●	●	●	●		7			
8 ●				●	8			
9 ●	●			●	9			
10 ●		●		●	A			
11 ●	●	●		●	B			
12 ●			●	●	C			
13 ●	●		●	●	D			
14 ●		●	●	●	E			
15 ●	●	●	●	●	F			

		DRAW/DESIGNED		CHECKED	APPROVED				TITLE		MINI ROTARY DIP SWITCH		
		K.N KIM		W.J LEE	K.I LEE				G.TOL				
							UNIT		SCALE		MODEL NO.		
		2023-10-12		2023-10-12	2023-10-12		mm		N:S		MSKR-16S		
		DIN ISO-2768-1m										REV.	
RANGES		0.5-3	3-6	6-30	30-120	120-400							
TOLERANCE		±0.1	±0.1	±0.2	±0.3	±0.5							
		 SUNGUMUN ELECTRONICS CO.,LTD											
								SIZE		DRAW NO.		MSKR-16S-01	
								A4				01	

SUNGUN ELECTRONICS CO.,LTD

1. Style:

This specification describes "7.4X7.4 size of Mini Rotary Dip Switch" which is M series.

1.1 Operating / Storage Temperature Range : -60°C ~ +125°C

2. Rating:

2.1 None-Switching : 400 mA, DC 42V

2.2 Switching : 100 mA, DC 42V

3. Type of Actuation : Rotating

4. Electrical Characteristics

ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
4-1	Visual Examination	By visual examination check without any out pressure & testing.	There shall be no defects that affect the serviceability of the product.
4-2	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)
4-3	Insulation Resistance	250V DC	100 MΩ min.
4-4	Dielectric withstanding Voltage	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. Mechanical Characteristics

ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
5-1	Operation Force	Operating direction shall be clockwise or counter clockwise direction	120gf•cm ±30
5-2	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 4-3,4-4 2)Contact Resistance: 200mΩ max 3)Final-after test

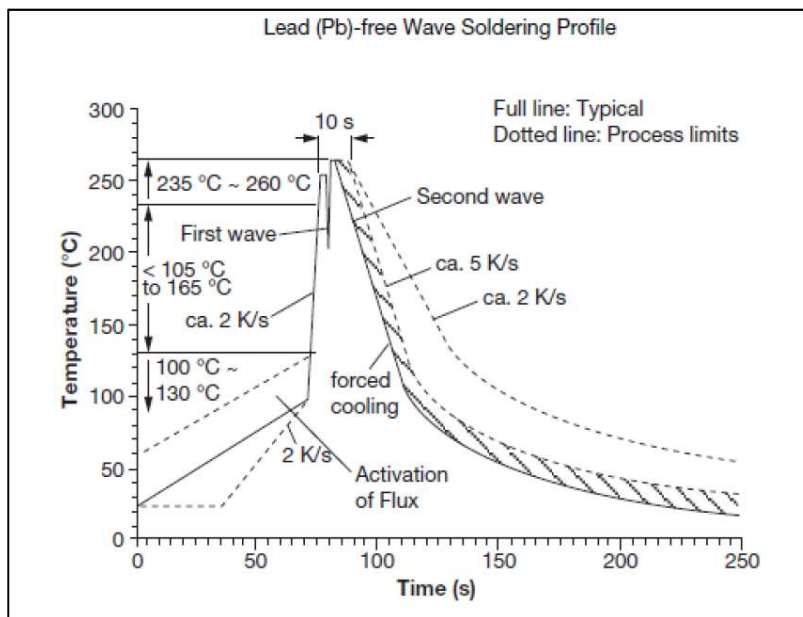
6. Environmental Characteristics

ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
6-1	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°C ±3°C 2)Time: 96 hours	1)As shown in item 4-3, 4-4, 5-1 2)Contact Resistance: 200mΩ max
6-2	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°C ±2°C 2)Time: 96 hours	1)As shown in item 4-3, 4-4, 5-1 2)Contact Resistance: 200mΩ max
6-3	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°C ±2°C 2)Relative humidity: 90~95% 3)Time: 96 hours	1)As shown in item 4-4, 5-1 2)Contact Resistance: 200mΩ max 3)Insulation Resistance: 10 MΩ min

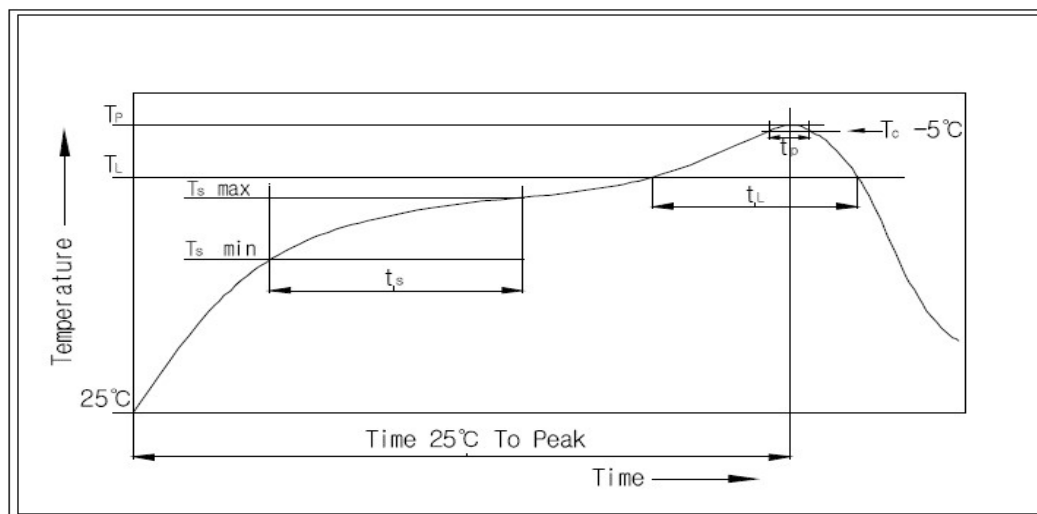
7. This item is "RoHS" Compliant

8. Manual Soldering : Max 350°C, 3 sec.

9. Wave Soldering Conditions:



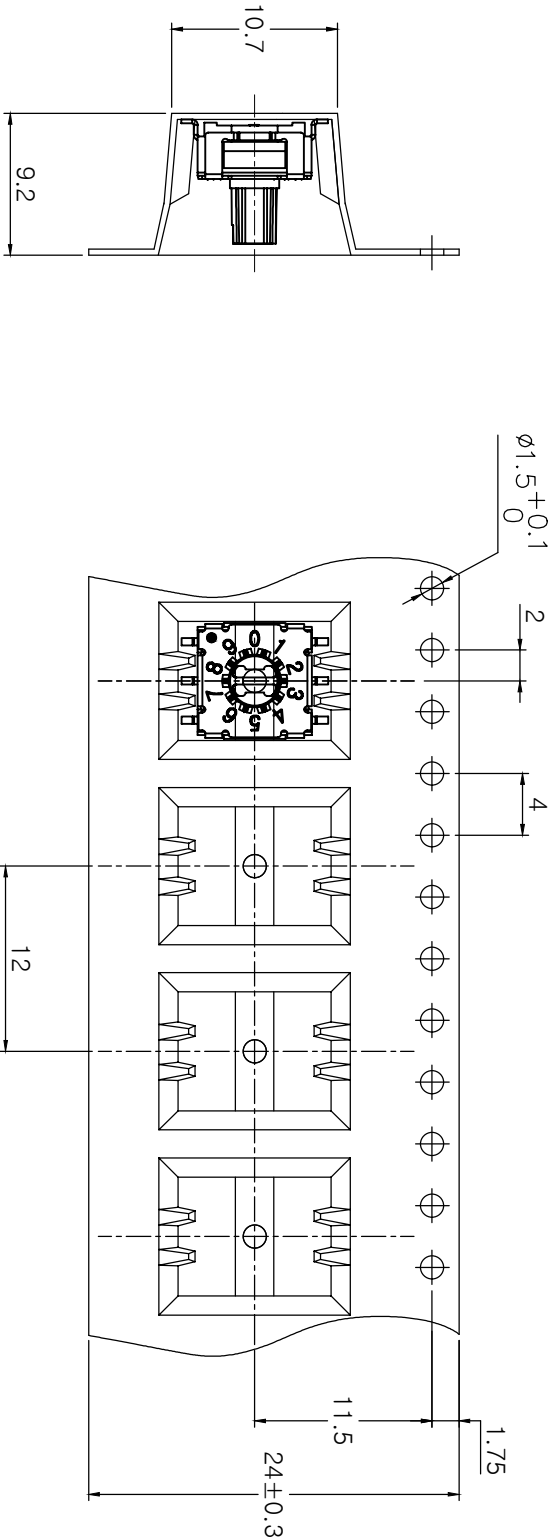
10. Reflow Soldering Conditions: (SMD type only)



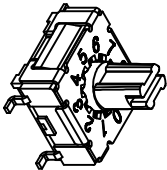
10-1 Condition for Soldering

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

MRK.	DATE	REVISION	SIGN
△			



DIRECTION OF FEED



Units(pcs)
600

DRAW/DESIGNED	CHECKED	APPROVED	UNIT	G.TOL	TITLE
H.S LEE	K.N KIM	W.J LEE	mm	± 0.3	M Series SC SMD Reel Packing
2022-11-14	2022-11-14	2022-11-14	SCALE	MODEL	REV.
			2:1	NO.	
			SIZE	DRAW	
			A4	NO.	
				TR-MSIS,KIO-00SJUD-01	01
				TR-MSIS,KIO-00SCJUCIO-01	

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