

DATA SHEET

SUNGMUN CODE : GSMR-16J-TR
DESCRIPTION : MINI ROTARY DIP SWITCH

SUNGMUN ELECTRONICS CO., LTD.

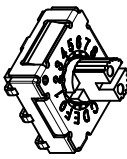
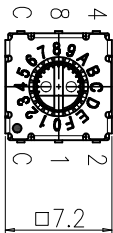
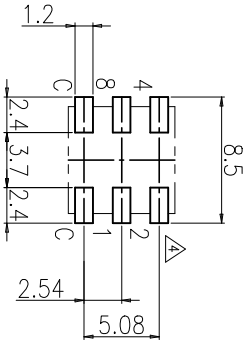
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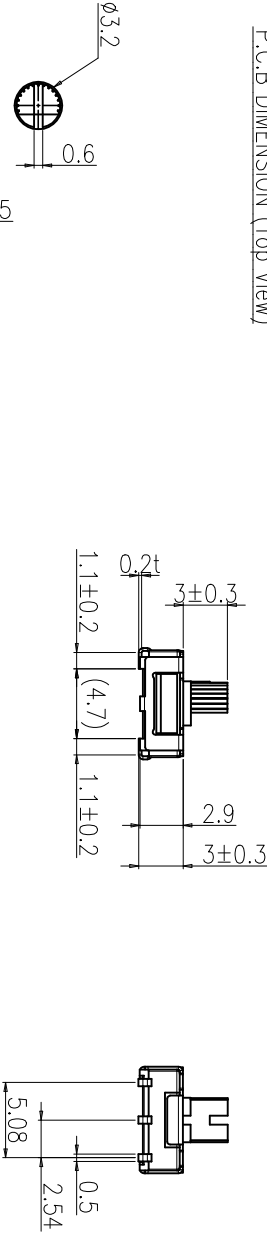
REV NO.	DATE	REVISION	DR	CH	APP
	21.10.28	P.C.B Dimension Revision	J.S YANG	W.J LEE	K.I LEE
	24.08.16	DIM ISO-2768-1m tolerance applied	H.S LEE	K.N KIM	W.J LEE

SPECIFICATION

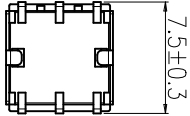
1. Rating : 100mA, DC 5V (Switching)
100mA, DC 50V (None-Switching)
2. Contact Resistance : 100mΩ Max
3. Insulation Resistance : 100MΩ Min at DC 100V
4. Operating Force : 200gf Max
5. Life cycle : 25,000 steps
6. Sealing : IP67 (Dust & Water proof)
7. Packing : 70pcs Tube / 800pcs Reel Packing



P.C.B DIMENSION (Top View)



ACTUATOR



Real 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						G.TOL		TITLE	
J.S YANG						—		COMPACT ROTARY DIP SWITCH	
W.J LEE						UNIT		MODEL	
K.I LEE						mm		NO.	
2021-10-28						SCALE		REV.	
2021-10-28						N:S			
2021-10-28						SIZE			
A4						DRAW			
NO.						GSMR-16J			
GSMR-16J-05									

1. Style:

This specification describes "Compact Mini Rotary Dip Switch" which is G series.

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

2. Rating:

2.1 None-Switching : 100 mA, DC 50V

2.2 Switching : 100 mA, DC 5V

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.	100mΩ max. (initial)
4-3	Insulation Resistance	100V 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	200gf•cm max (1.96N•cm max)
5-2	Operation Life	Measurements shall be made following the test set forth below: 1)100mA, 5V 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

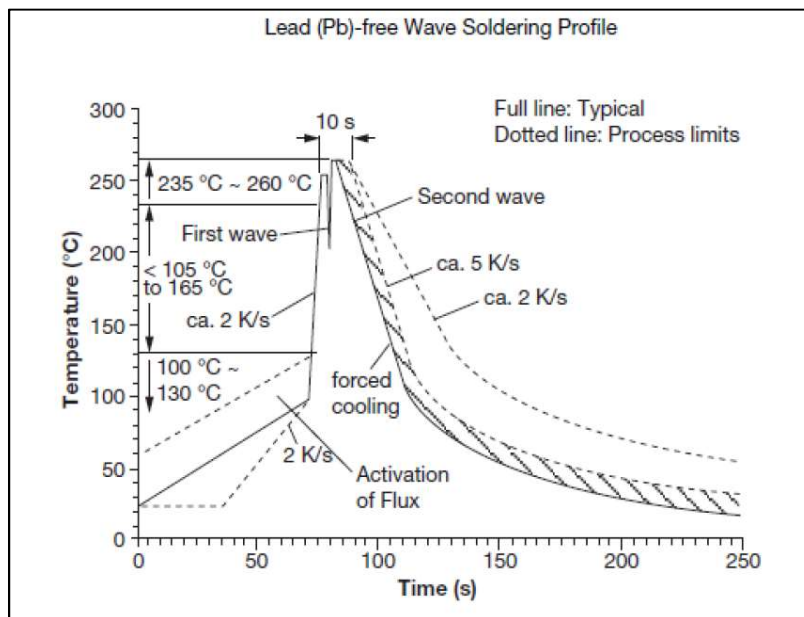
6. Environmental Characteristics

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: -40°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: 85°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: 240 hours	1)As shown in item 4-4, 5-1 2)Contact Resistance: 200mΩ max 3)Insulation Resistance: 10 MΩ min

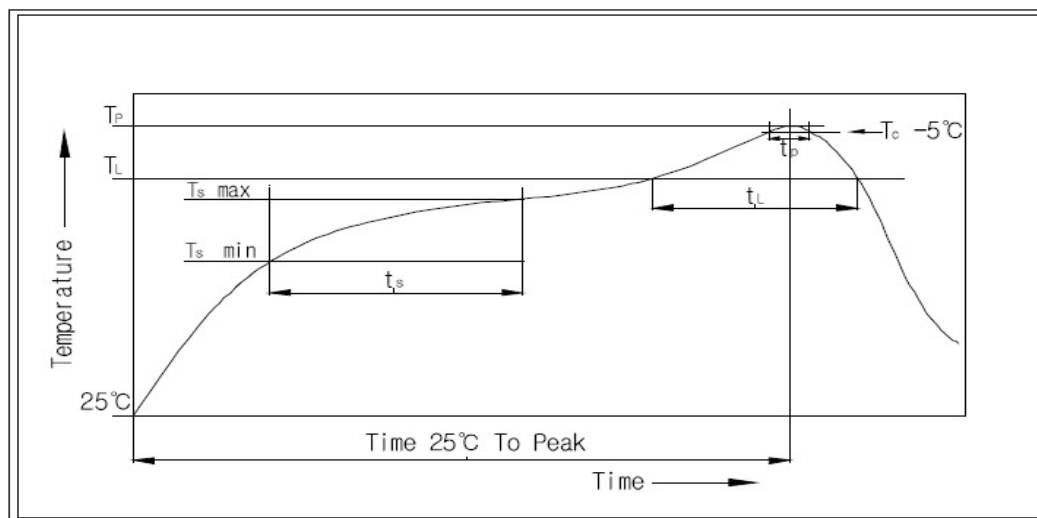
7. This item is "RoHS" Compliant

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

9. Wave Soldering Conditions:



10. Reflow Soldering Conditions:



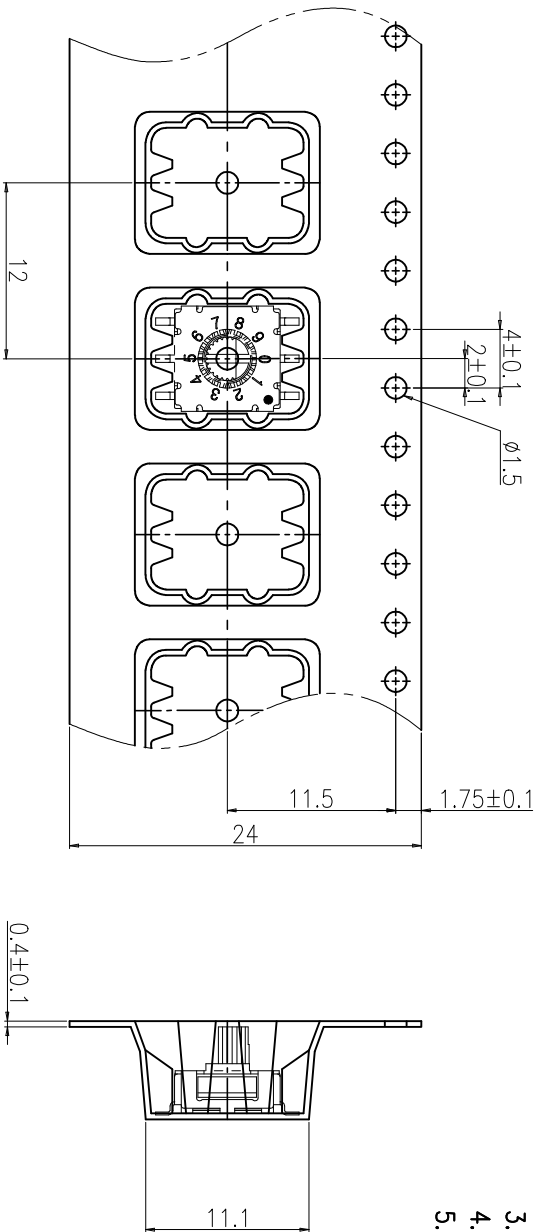
10-1 Condition for Soldering

Profile Feature	Pb-Free Assembly
Average Ramp-UP Rate(Ts max to TP)	3°C/second max
Preheat - Temperature Min(Ts min) - Temperature Max(Ts max) - Time (ts min to ts max)	150°C 200°C 60-180seconds
Time maintained above: - Temperature (TL) - Time (tL)	217°C 60-150seconds
Peak/Classification Temperature(TP)	260°C +0°C/ -5°C
Time within 5°C of actual Peak Temperature(TP)	5~10 seconds
Ramp-Down Rate	6°C/sec max
Time 25°C to Peak Temperature	8 minutes max

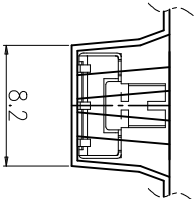
REV NO.	DATE	REVISION	DR	CH	APP
△	26.01.13	Recreation of drawings for unification of drawing formats	K.M.KIM	K.M.KIM	W.J.LEE

NOTE

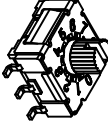
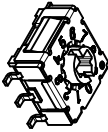
- 제품외관에 유해한 BURR가 없을것.
- 제품외관에 뒤들림이나 칠이 없을 것.
- 크랙이나 갈라짐이 없을것.
- 지시없는 치수는 2D 또는 3D DATA 참조할것.
- 지시없는 공차는 일반공차 적용할것.



DIRECTION OF FEED



Units(pcs)
800



GS M.P ROTOR

MS G.M ROTOR

01	REEL PACKING			CONDUCTIVE POLYSTYRENE	BLACK	800	-
NO.	DESCRIPTION			MATERIAL	COLOR / FINISH	QTY	REMARK
DRAW/DESIGNED	CHECKED	APPROVED					
S.M PARK	J.P ROH	K.I LEE					
2019-09-17	2019-09-17	2019-09-17	UNIT	SCALE	MODEL		REV.
			mm	N:S	NO.		
SUNGUMUN ELECTRONICS CO.,LTD			SIZE	DRAW	CPKTR031-01		01
			A4	NO.			