

DATA SHEET

SUNGMUN CODE : GSMR-16S (LG)

DESCRIPTION : ROTARY DIP SWITCH

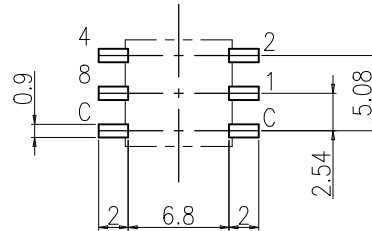
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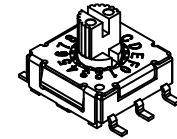
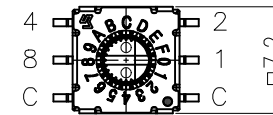
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SPECIFICATION

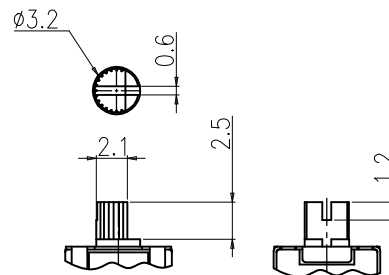
- Rating : 100mA, DC 5V (Switching)
100mA, DC 50V (None-Switching)
- Contact Resistance : 100mΩ Max
- Insulation Resistance : 100MΩ Min at DC 100V
- Operating Force : 200gf·cm Max
- Life cycle : 25,000 steps
- Sealing : IP67 (Dust & Water proof)
- Packing : 70pcs Tube / 800pcs Reel Packing



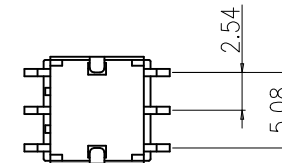
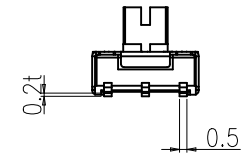
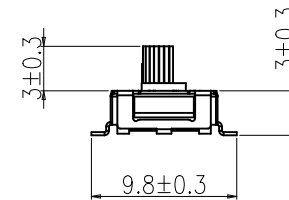
P.C.B DIMENSION (Top View)



Real Coded		C	1	2	4	8	
16 P o s i t i o n	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



ACTUATOR



DRAW/DESIGNED	CHECKED	APPROVED	UNIT	G.TOL	TITLE	COMPACT ROTARY DIP SWITCH	
H.S LEE	K.N KIM	W.J LEE		SCALE	MODEL NO.	GSMR-16S (LG)	REV.
2023-09-25	2023-09-25	2023-09-25	mm	N:S	DRAW NO.	GSMR-16S(LG)-01	01

Din ISO-2768-1m					
Ranges	0.5~3	3~6	6~30	30~120	120~400
Tolerance	±0.1	±0.1	±0.2	±0.3	±0.5

SUNGMUN ELECTRONICS CO.,LTD

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

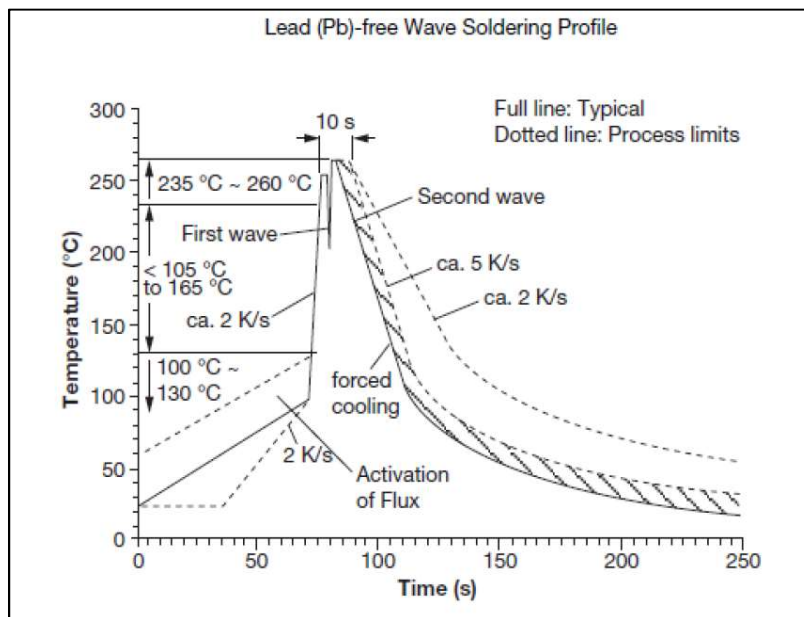
6. Environmental Characteristics

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

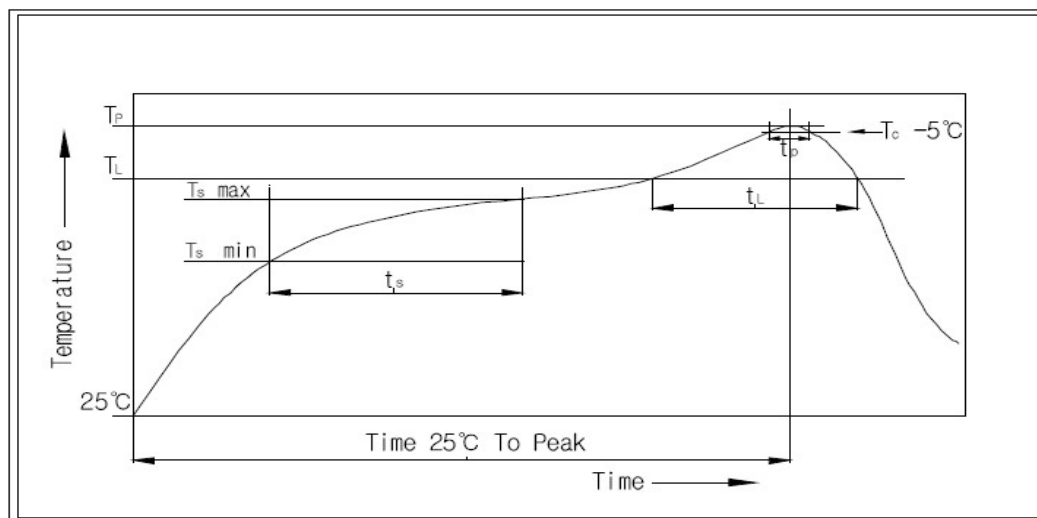
7. This item is "RoHS" Compliant

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