



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



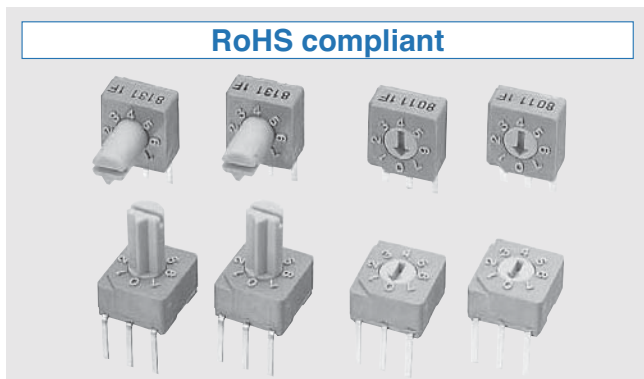
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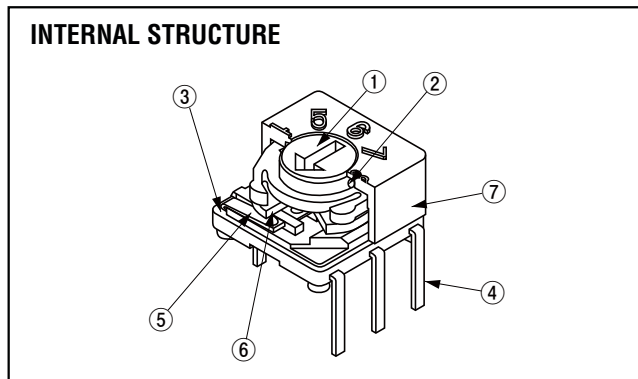
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





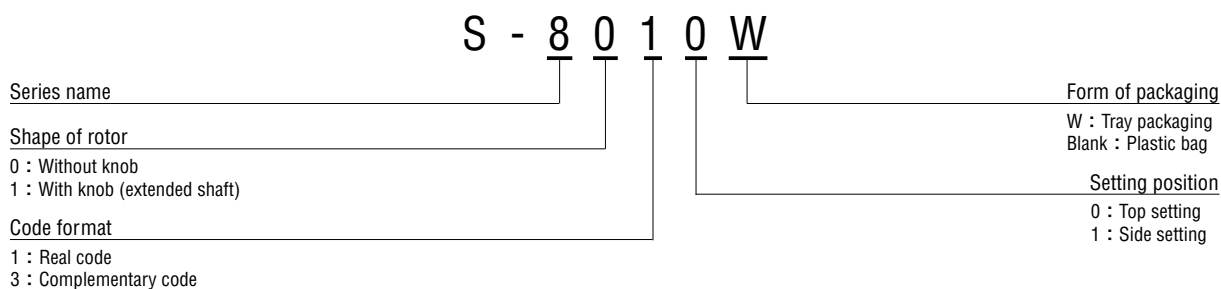
FEATURES

- RoHS compliant
- 3 bits 8 positions type
- Protection against dust and washable after soldering
- DIP-pin configuration: 2.54 mm pitch



| Part name | Material | Flammability |
|----------------|---------------------------|--------------|
| ① Rotor | Polyoxymethylene | UL94HB |
| ② "O" ring | Silicone rubber | |
| ③ Base | Polybutyleneterephthalate | |
| ④ Terminal pin | Copper alloy, Gold-plated | — |
| ⑤ Contact | | |
| ⑥ P.C.B. | Gold-plated epoxy board | |
| ⑦ Housing | Polybutyleneterephthalate | UL94HB |

PART NUMBER DESIGNATION



LIST OF PART NUMBERS

| Shape | Form of packaging | Binary coded octal | | Pieces in package | |
|--------------|-------------------|--------------------|--------------------|-------------------|---------------|
| | | Real code | Complementary code | | |
| Top setting | Without knob | Tray packaging | S-8010W | S-8030W | 50 pcs./tray |
| | | Plastic bag | S-8010 | S-8030 | 100 pcs./pack |
| | With knob | Tray packaging | S-8110W | S-8130W | 50 pcs./tray |
| | | Plastic bag | S-8110 | S-8130 | 100 pcs./pack |
| Side setting | Without knob | Tray packaging | S-8011W | S-8031W | 50 pcs./tray |
| | | Plastic bag | S-8011 | S-8031 | 100 pcs./pack |
| | With knob | Tray packaging | S-8111W | S-8131W | 50 pcs./tray |
| | | Plastic bag | S-8111 | S-8131 | 100 pcs./pack |

※ Verify the above part numbers when placing orders.
Tray version can be supplied only in tray units.

S-8000

ROTARY CODED SWITCHES

STANDARD SPECIFICATIONS

| | |
|-----------------------------|--|
| Circuit type | BCO (Real code, complementary code) |
| Operating temperature range | -25 ~ 70 °C |
| Storage temperature range | |
| Sealing | Washable by "O" ring ※Please refer to page 150,151 |
| Net weight | Approx. 0.27 g (S-8010, S-8030) Approx. 0.34 g (S-8110, S-8130) Approx. 0.33 g (S-8011, S-8031) Approx. 0.40 g (S-8111, S-8131) |

ELECTRICAL CHARACTERISTICS

| | |
|---|---|
| Contact rating Non-switching Switching Minimum | DC50 V 100 mA DC5 V 100 mA DC20 mV 1 μA |
| Contact resistance | 100 mΩ maximum |
| Insulation resistance | 1000 MΩ (DC100 V) minimum |
| Dielectric strength | AC250 V, 60 s |

MECHANICAL CHARACTERISTICS

| | |
|-------------------|--|
| No. of positions | 8 |
| Adjustment torque | 36 mN·m {367 gf·cm} maximum |
| Stepping angle | 45° |
| Terminal strength | 10 N {1.02 kgf} minimum |
| Solderability | 245 ± 3 °C, 2 ~ 3 s |
| Soldering heat | Flow : 260 ± 3 °C as the temperature in a pot of molten solder, immersion from head of terminal to backside of board, 5 ~ 6 s, two times maximum |
| | Manual soldering : 380 ± 10 °C, 3 ~ 4 s |

ENVIRONMENTAL CHARACTERISTICS

| | |
|---------------------------|--|
| Vibration | (Amplitude) 1.5 mm or (Acceleration) 98 m/s ² , 10-500-10 Hz, 3 directions for 2 h each |
| Shock | 490 m/s ² , 11 ms 6 directions for 3 times each |
| Load life | 10000 steps minimum DC5 V, 100 mA |
| Humidity (Steady state) | 40 °C, Relative humidity 90 ~ 95 %, 240 h |
| High temperature exposure | 70 °C, 96 h |
| Low temperature exposure | -25 °C, 96 h |
| Thermal shock | -25 (0.5 h) ~ 70 °C (0.5 h), 5 cycles |

{ } : Reference only

CODE FORMAT

| No. of positions | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
|------------------|--------------------|----------------|---|---|---|---|---|---|---|---|
| Code | Real code | 4 | | | | ● | ● | ● | ● | |
| | | 2 | | ● | ● | | | ● | ● | |
| | | 1 | | ● | | ● | | ● | | ● |
| | Complementary code | $\overline{4}$ | ● | ● | ● | ● | | | | |
| | | $\overline{2}$ | ● | ● | | | ● | ● | | |
| | | $\overline{1}$ | ● | | ● | | ● | | ● | |

● ... Contact closed

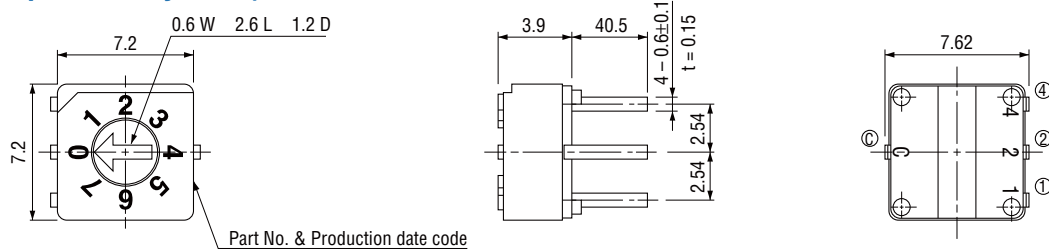
S-8000

ROTARY CODED SWITCHES

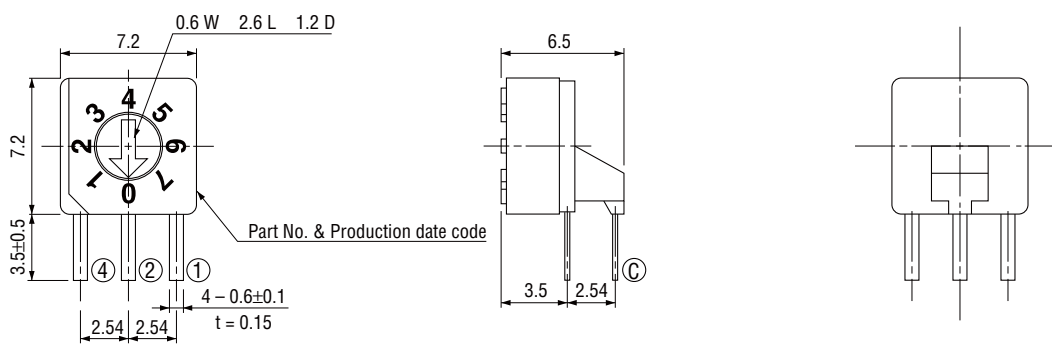
OUTLINE DIMENSIONS

Unless otherwise specified, tolerance: ± 0.3 (Unit: mm)

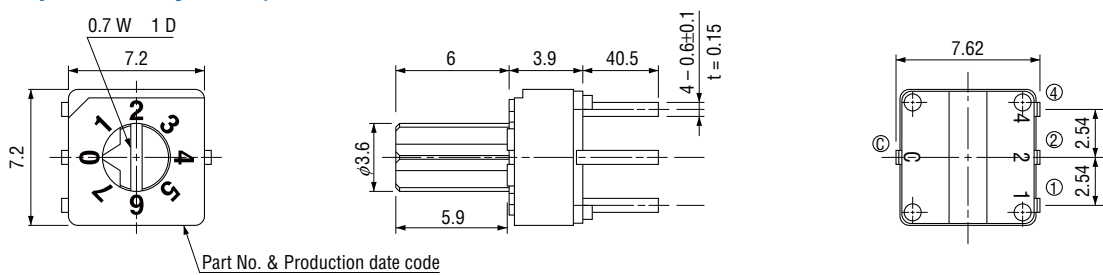
- S-8010 (Real code)
- S-8030 (Complementary code)



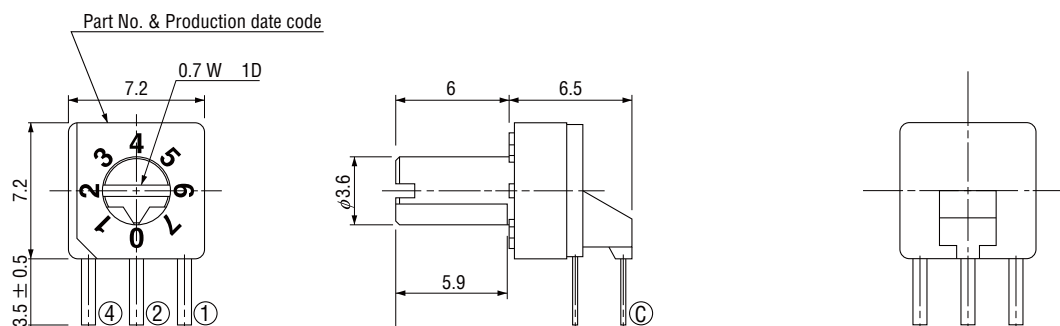
- S-8011 (Real code)
- S-8031 (Complementary code)



- S-8110 (Real code)
- S-8130 (Complementary code)



- S-8111 (Real code)
- S-8131 (Complementary code)



S-8000

ROTARY CODED SWITCHES

■ TERMINAL CONNECTION / P.C.B. THROUGH HOLE DIMENSIONS (Unit: mm)

| | Top setting | Side setting |
|--------------------------------------|---|---|
| Terminal pin layout (Bottom view) | <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Real code</p> </div> <div style="text-align: center;"> <p>Complementary code</p> </div> </div> | <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Operating face of real code</p> </div> <div style="text-align: center;"> <p>Operating face of complementary code</p> </div> </div> |
| P.C.B. dimensions (Bottom view) | | |

■ PACKAGING SPECIFICATIONS

<Tray packaging specifications>

- Tray version is packaged in 50 pcs. per tray. Orders will be accepted for units of 50 pcs., i. e., 50, 100, 150 pcs. etc.
- Tray version is boxed with 10 trays.

<Bulk pack specifications>

- The smallest unit of bulk pack in a plastic bag is 10 pcs. per pack.
Orders will be accepted for unit of minimum 10 pcs., i.e., 10, 20, 30 pcs., etc.
- Boxing of bulk in a plastic bag is performed with 50 pcs. (standard 100 pcs.) per box.