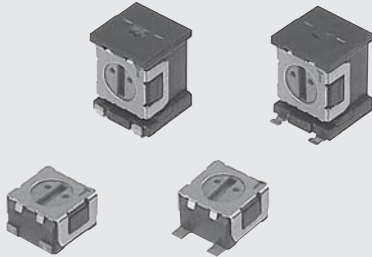


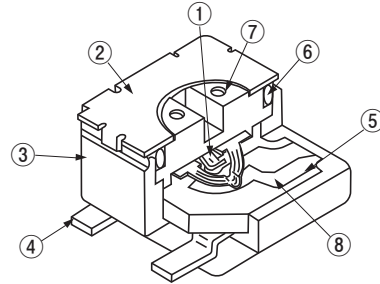
RoHS compliant



FEATURES

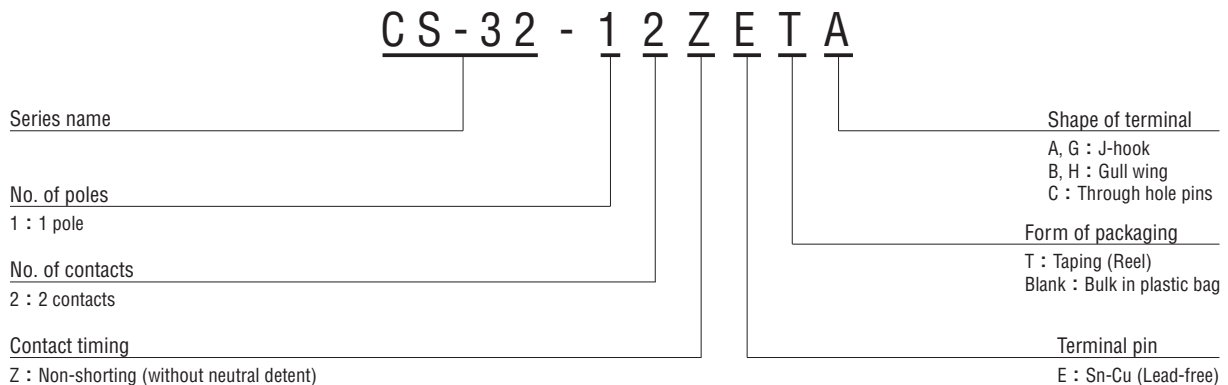
- RoHS compliant
- Optimum for high density board mounting applications
- Compatible with most automatic pick & place machinery
- Protection against dust and washable after soldering
- Top and side setting types are available
- Same dimensions as ST-32 trimmer and conveniently usable as a set

INTERNAL STRUCTURE



| Part name | Material | Flammability |
|----------------|----------------------------|--------------|
| ① Wiper | Multi metal alloy | — |
| ② Cover | Stainless steel (SUS 304) | |
| ③ Housing | Epoxy | UL94V-0 |
| ④ Terminal pin | Copper alloy, Sn-Cu-plated | — |
| ⑤ Base element | Ceramic | |
| ⑥ "O" ring | Silicone rubber | UL94HB |
| ⑦ Rotor | Polyphenylenesulphide | UL94V-0 |
| ⑧ Electrode | Ag-Pd cermet | — |

PART NUMBER DESIGNATION









※ Please refer to the LIST OF PART NUMBERS when placing orders.

CS-32

ROTARY SELECTOR SWITCHES (SMD)

SCHEMATICS DIAGRAMS

● 1 pole 2 contacts

| Series | Switching specifications | Schematic |
|---|---|---|
| CS-32-12ZEA ≧ 12ZEB ≧ 12ZEC ≧ 12ZEG ≧ 12ZEH |   ON |  |
| |  OFF | |
| |   ON | |

LIST OF PART NUMBERS

| Circuit type | | Setting position | Form of packaging | A, G J-hook | B, H Gull wing | C Through hole pins | Pieces in package |
|----------------------|------------------------------|------------------|-------------------|----------------|-------------------|------------------------|-------------------|
| 1 pole 2 contacts | Whitout neutral detent | Top setting | Taping | CS-32-12ZETA | CS-32-12ZETB | | 500 pcs. /reel |
| | | | Plastic bag | CS-32-12ZEA | CS-32-12ZEB | CS-32-12ZEC | 100 pcs. /pack |
| | | Side setting | Taping | CS-32-12ZETG | CS-32-12ZETH | | 500 pcs. /reel |
| | | | Plastic bag | CS-32-12ZEG | CS-32-12ZEH | | 100 pcs. /pack |

※ Verify the above part numbers when placing orders.

Taping version can be supplied only in reel unit.

CS-32

ROTARY SELECTOR SWITCHES (SMD)

STANDARD SPECIFICATIONS

| | |
|-----------------------------|---|
| Circuit type | 1 pole 2 contacts |
| Operating temperature range | -40 ~ 85 °C |
| Storage temperature range | |
| Sealing | Washable by "O" ring ※ Please refer to page 150, 151 |
| Net weight | Approx. 0.05g (A, B) Approx. 0.06g (C) Approx. 0.11g (G, H) |

ELECTRICAL CHARACTERISTICS

| | |
|-----------------------|--------------------------|
| Contact rating | 0.5 VA |
| Maximum current | 100 mA |
| Maximum voltage | 16 V |
| Contact timing | Non-shorting |
| Contact resistance | 2 Ω maximum |
| Insulation resistance | 100 MΩ (DC500 V) minimum |
| Dielectric strength | AC250 V, 60 s |

MECHANICAL CHARACTERISTICS

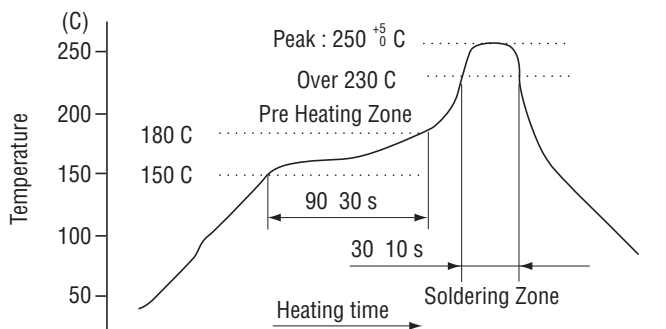
| | |
|-------------------|--|
| No. of positions | 2 |
| Adjustment torque | 5 mN·m {51 gf·cm} maximum |
| Stopper strength | 20 mN·m {204 gf·cm} minimum |
| Stepping angle | 250° ± 15° |
| Solderability | Sn-Cu (lead-free) : 245 ± 3 °C, 2 ~ 3 s |
| Soldering heat | Sn-Cu (Lead-free) Flow : 260 ± 3 °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. Reflow : Peak temperature 255 °C (Please refer to the profile below.) Manual soldering : 350 ± 10 °C, 3 ~ 4 s |
| Shear (Adhesion) | 5 N {0.51 kgf}, 10 s |
| Substrate bending | Width 90 mm, bend 3 mm, 5 s, 1 time |
| Pull-off strength | 5 N {0.51 kgf}, 10 s |

{ } : Reference only

ENVIRONMENTAL CHARACTERISTICS

| | |
|---------------------------|---|
| Vibration | Amplitude 1.5 mm or Acceleration 98 m/s ² , 10-500-10 Hz, 3 directions for 3 times each |
| Shock | 490 m/s ² , 11 ms 6 directions for 3 times each |
| Load life | 50 cycles minimum DC16 V 30 mA |
| Humidity (Steady state) | 40 °C, Relative humidity 90 ~ 95 %, 240 h |
| High temperature exposure | 85 °C, 96 h |
| Low temperature exposure | -40 °C, 96 h |
| Thermal shock | -40 (0.5 h) ~ 85 °C (0.5 h), 5 cycles |

<Reflow profile for soldering heat evaluation>



Reflow : two times maximum

CS-32

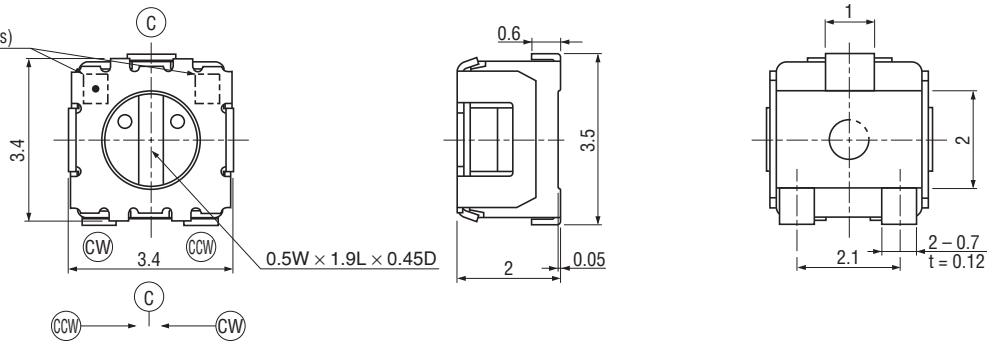
ROTARY SELECTOR SWITCHES (SMD)

OUTLINE DIMENSIONS

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

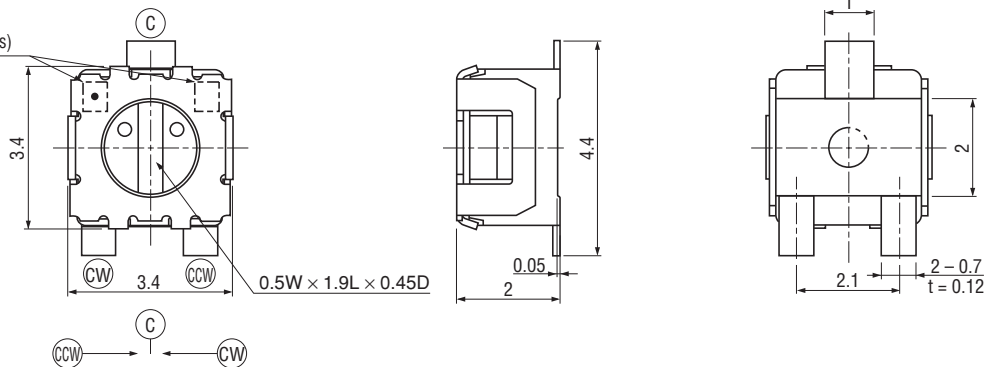
CS-32-12ZEA

Production date code &
Lead-free Identification mark,
1 digit (Location reversed every 2 years)



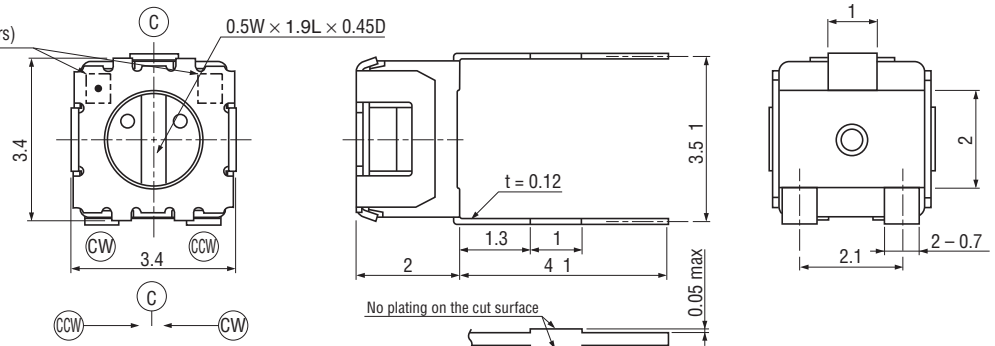
CS-32-12ZEB

Production date code &
Lead-free Identification mark,
1 digit (Location reversed every 2 years)



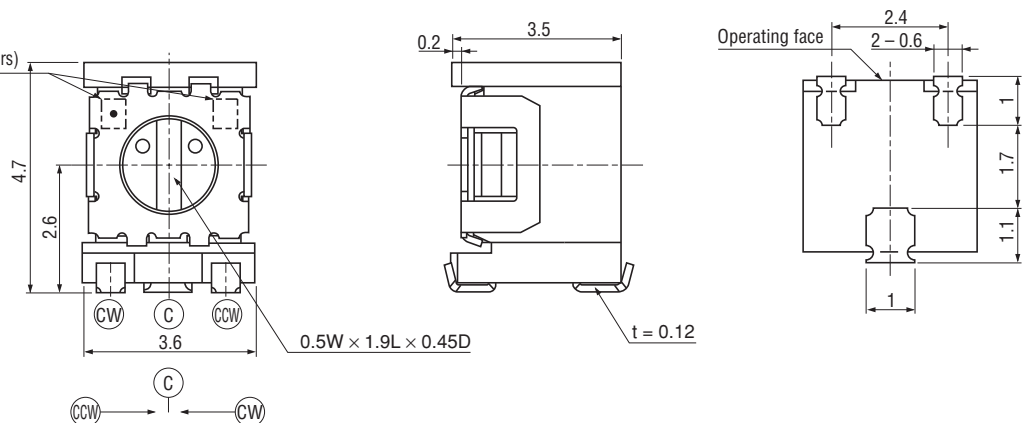
CS-32-12ZEC

Production date code &
Lead-free Identification mark,
1 digit (Location reversed every 2 years)



CS-32-12ZEG

Production date code &
Lead-free Identification mark,
1 digit (Location reversed every 2 years)



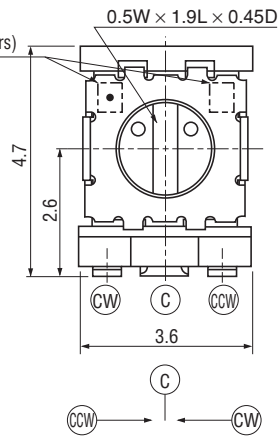
CS-32

ROTARY SELECTOR SWITCHES (SMD)

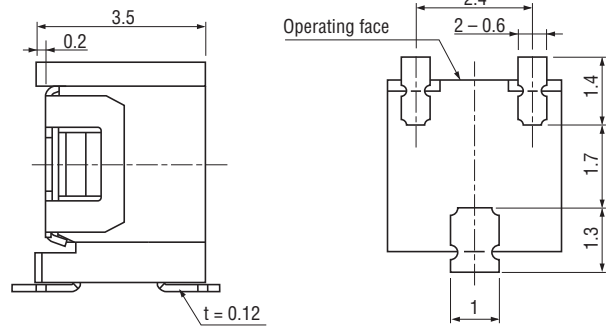
OUTLINE DIMENSIONS

CS-32-12ZEH

Production date code &
Lead-free Identification mark,
1 digit (Location reversed every 2 years)

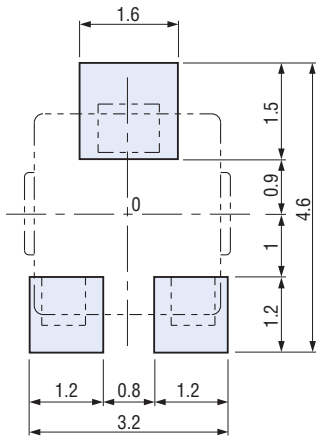


Unless otherwise specified, tolerance: ± 0.3 (Unit: mm)



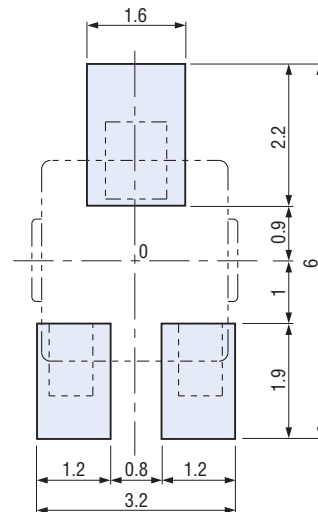
RECOMMENDED P.C.B. PAD OUTLINE DIMENSIONS

CS-32-12ZEA, 12ZEG



CS-32-12ZEB, 12ZEH

(Unit: mm)



Note 1) The zero point is the center of mounting.
Note 2) The land patterns conform to EIAJ RC2161.
Note 3) The land patterns are for reflow soldering.

CS-32

ROTARY SELECTOR SWITCHES (SMD)

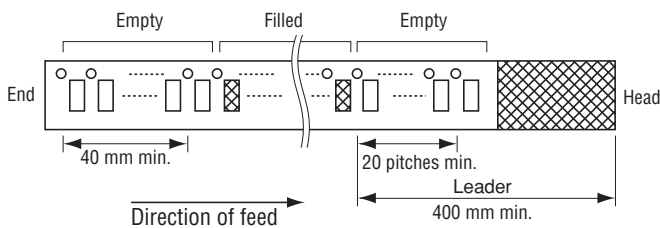
PACKAGING SPECIFICATIONS

<Taping packaging specifications>

- Taping version is packaged in 500 pcs. per reel.
Orders will be accepted for units of 500 pcs., i.e., 500, 1000, 1500 pcs., etc.

Maximum number of consecutive missing pieces = 2
Leader length and reel dimension are shown in the diagrams below:

● Embossed tape dimensions

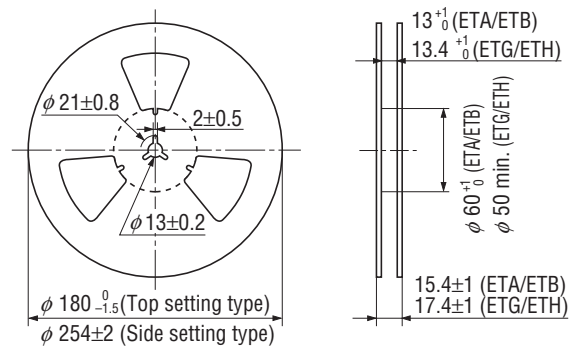


- CS-32ZETA and ZETB versions are boxed with 4 reels (2000 pcs.). CS-32ZETG and ZETH versions are boxed with one reel (500 pcs.)

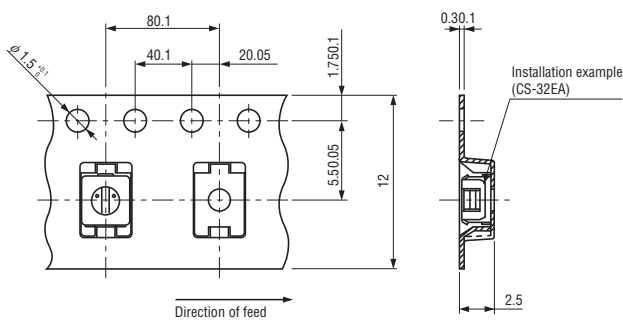
● Reel dimensions

(Unit: mm)

(Conforms to JIS C 0806-3)
(In accordance with EIAJ ET-7200A)



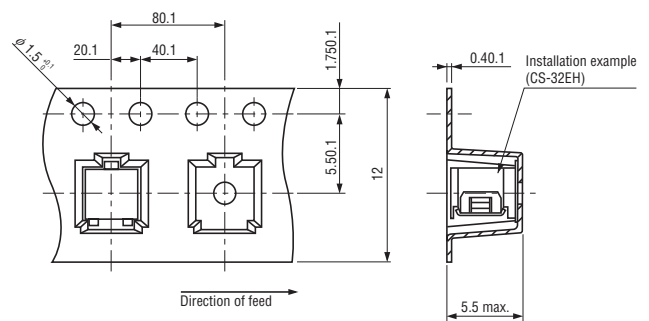
● CS-32-12ZETA/CS-32-12ZETB



● CS-32-12ZETG/CS-32-12ZETH

(Unit: mm)

(Conforms to JIS C 0806)



<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 100 pcs. (standard 500 pcs.) per box.