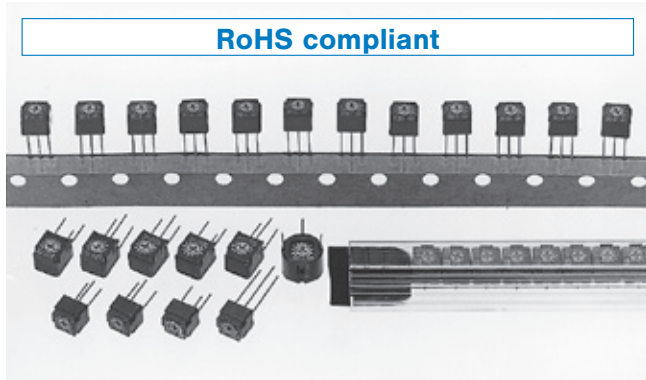
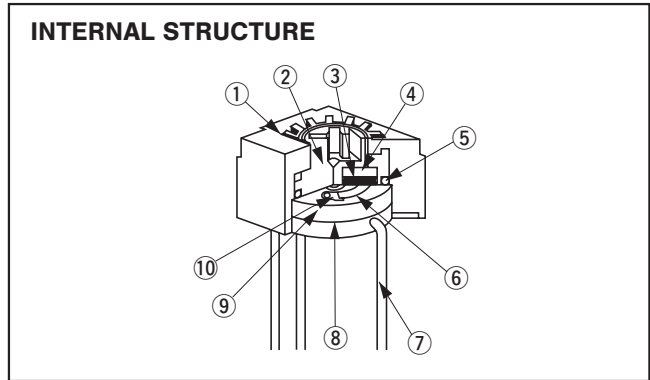


SINGLE TURN CERMET TRIMMERS **CT-6**



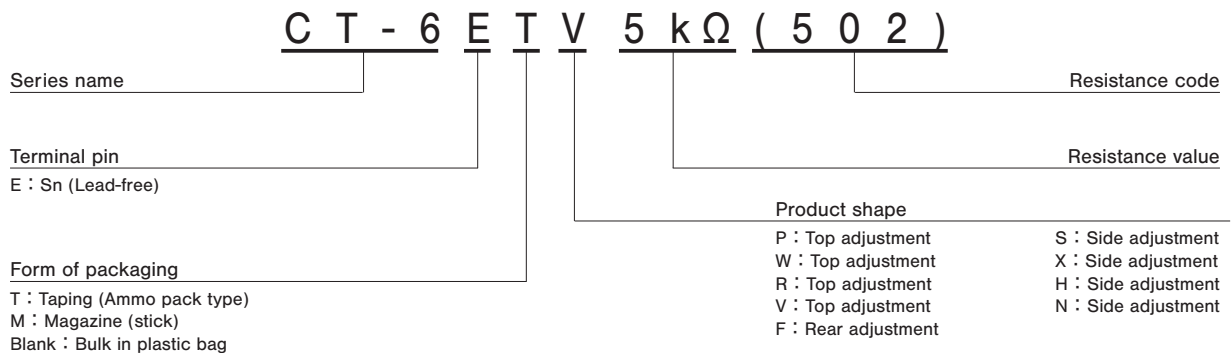
FEATURES

- RoHS compliant
- Various configurations to choose from
- Wide variety (14 types)
- "O" ring sealed and washable













| Part name | Material | Flammability |
|---------------------|---------------------------|--------------|
| ① Housing | Polybutyleneterephthalate | UL94V-0 |
| ② Rotor | | |
| ③ Wiper | Multi metal alloy | — |
| ④ Rubber cushion | Silicone rubber | |
| ⑤ "O" ring | Silicone rubber | UL94HB |
| ⑥ Resistive element | RuO ₂ cermet | — |
| ⑦ Terminal pin | Copper, Tin-plated | |
| ⑧ Adhesive | Epoxy | UL94V-0 |
| ⑨ Base element | Ceramic | — |
| ⑩ Electrode | Ag-Pd cermet | |

PART NUMBER DESIGNATION



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

LIST OF PART NUMBERS

| Adjustment position | Shape of terminal (Top view) | Form of packaging | | | Remarks |
|---|---|---------------------------|------------------|--------------|---|
| | | Taping | Magazine (stick) | Plastic bag | |
| Top adjustment  |  | CT-6ETP Ammo pack type | CT-6EMP | CT-6EP | The pin length of CT-6ETP & CT-6EMP is different from CT-6EP. |
| |  | / | / | CT-6EW | — |
| |  | / | / | A CT-6ER | — |
| |  | CT-6ETV Ammo pack type | / | CT-6EV | — |
| Side adjustment (↑ Adjustment direction) |  | / | CT-6EMS | CT-6ES | The pin length of CT-6EMS is different from CT-6ES. |
| |  | / | / | CT-6EX | — |
| |  | CT-6ETH Ammo pack type | / | CT-6EH | The pin length of CT-6ETH is different from CT-6EH. |
| |  | / | / | CT-6EN | — |
| Rear adjustment |  | / | / | A CT-6EF | — |
| Pieces in package | | 1000 pcs./taping | 75 pcs./stick | 50 pcs./pack | — |

☐ : Not manufactured

The products indicated by ⊖ mark are manufactured upon receipt of order basis.

<Nominal resistance values>

Fig. 1

| | | | | | |
|--------|--------|--------|-------|-------|-------|
| ⊖ 10 Ω | ⊖ 20 Ω | 50 Ω | 100 Ω | 200 Ω | 500 Ω |
| 1 kΩ | 2 kΩ | 5 kΩ | 10 kΩ | 20 kΩ | 50 kΩ |
| 100 kΩ | 200 kΩ | 500 kΩ | 1 MΩ | 2 MΩ | |

※ The above part numbers are all available with the respective combination of <Nominal resistance values> (Fig. 1).

※ Verify the above part numbers when placing orders.

※ Taping and magazine specifications are not sold separately and must be purchased in taping or stick units.

CT-6

CERMET TRIMMERS

ELECTRICAL CHARACTERISTICS

| | |
|----------------------------|---|
| Nominal resistance range | 10 Ω ~ 2 MΩ |
| Resistance tolerance | ± 10 % |
| Power ratings | 0.5 W (70 °C) 0 W (120 °C) |
| Resistance law | Linear law |
| Maximum input voltage | DC200 V or power rating, whichever is smaller |
| Maximum wiper current | 100 mA or power rating, whichever is smaller |
| Effective electrical angle | 220 ° (1 turn) |
| End resistance | 1 % or 2 Ω , whichever is greater |
| C.R.V. | 1 % or 3 Ω , whichever is greater |
| Operating temp. range | -55 ~ 120 °C |
| Temp. coefficient | 10 Ω ~ 20 Ω : ± 250 10 ⁻⁶ /°C maximum 50 Ω ~ 2 MΩ: ± 100 10 ⁻⁶ /°C maximum |
| Insulation resistance | 1000 MΩ minimum (DC500 V) |
| Dielectric strength | AC900 V, 60 s |
| Net weight | Approx. 0.51 g (CT-6EP, EW, ER, EV) Approx. 0.65 g (CT-6ES, EX, EH, EN) Approx. 0.92 g (CT-6EF) |

MECHANICAL CHARACTERISTICS

| | |
|-------------------|--|
| Mechanical angle | 260 ° (1 turn) |
| Operating torque | 2 ~ 20 mN·m {20 ~ 204 gf·cm} |
| Stop strength | 50 mN·m {510 gf·cm} minimum |
| Rotational life | 200 cycles [$\Delta R/R \leq \pm (2 \Omega + 3 \%)$] |
| Terminal strength | 10 N {1.02 kgf} minimum (Tensile strength) |
| Thrust to rotor | 10 N {1.02 kgf} minimum |
| Solderability | 245 ± 3°C, 2 ~ 3 s |

{ } : Reference only

ENVIRONMENTAL CHARACTERISTICS

| Test item | Test conditions | Specifications |
|---------------------|--|--|
| Thermal shock | -65 ~ 125 °C (0.5 h), 5 cycles | $[\Delta R/R \leq 1 \%$ $[S.S. \leq 1 \%$ |
| Humidity | -10 ~ 65 °C (80 ~ 98 %), 10 cycles, 240 h | $[\Delta R/R \leq 2 \%$ |
| Shock | 981 m/s ² , 6 ms 6 directions for 3 times each | $[\Delta R/R \leq 1 \%$ $[S.S. \leq 1 \%$ |
| Vibration | (Amplitude) 1.52 mm or (Acceleration) 196 m/s ² , 10 ~ 2000 Hz, 3 directions, 12 times each | |
| Load life | 70 °C, 0.5 W, 1000 h | $[\Delta R/R \leq 3 \%$ $[S.S. \leq 1 \%$ |
| Low temp. operation | -55 °C, 2 h | $[\Delta R/R \leq 2 \%$ $[S.S. \leq 2 \%$ |
| High temp. exposure | 120 °C, 250 h | $[\Delta R/R \leq 3 \%$ $[S.S. \leq 2 \%$ |
| Immersion seal | 85 °C, 60 s | No leaks (No continuous bubbles) |
| Soldering heat | Flow : 260 ± 3 °C, 5 ~ 6 s, two times maximum Manual soldering : 380 ± 10 °C, 3 ~ 4 s | $[\Delta R/R \leq 1 \%$ |

$\Delta R/R$: Change in total resistance
S.S. : Setting stability

MAXIMUM INPUT RATINGS

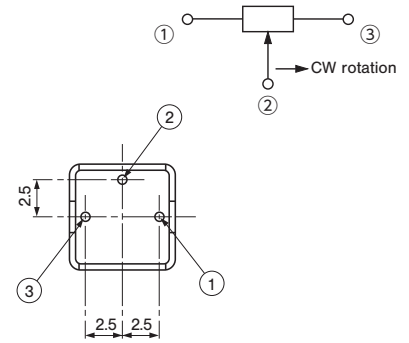
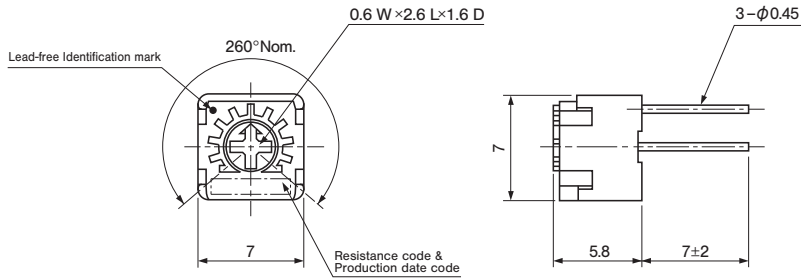
| Nominal resistance values (Ω) | Resistance code | Maximum input voltage (V) | Maximum wiper current (mA) |
|---------------------------------|-----------------|---------------------------|----------------------------|
| ⊕ 10 | 100 | 1.00 | 100 |
| ⊖ 20 | 200 | 2.00 | 100 |
| 50 | 500 | 5.00 | 100 |
| 100 | 101 | 7.07 | 70.7 |
| 200 | 201 | 10.0 | 50.0 |
| 500 | 501 | 15.8 | 31.6 |
| 1 k | 102 | 22.4 | 22.4 |
| 2 k | 202 | 31.6 | 15.8 |
| 5 k | 502 | 50.0 | 10.0 |
| 10 k | 103 | 70.7 | 7.07 |
| 20 k | 203 | 100 | 5.00 |
| 50 k | 503 | 158 | 3.16 |
| 100 k | 104 | 200 | 2.00 |
| 200 k | 204 | 200 | 1.00 |
| 500 k | 504 | 200 | 0.40 |
| 1 M | 105 | 200 | 0.20 |
| 2 M | 205 | 200 | 0.10 |

The products indicated by ⊖ mark are manufactured upon receipt of order basis.

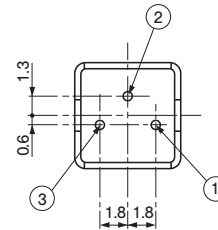
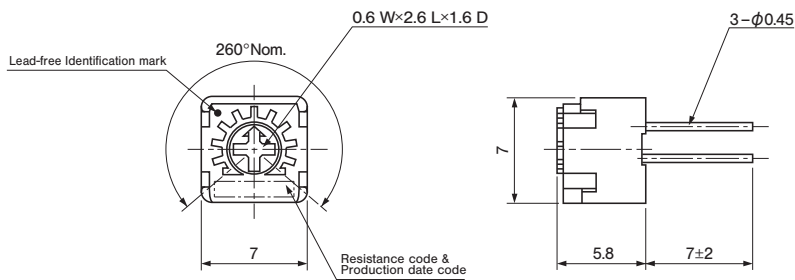
OUTLINE DIMENSIONS

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

CT-6EP Top adjustment

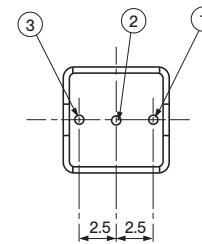
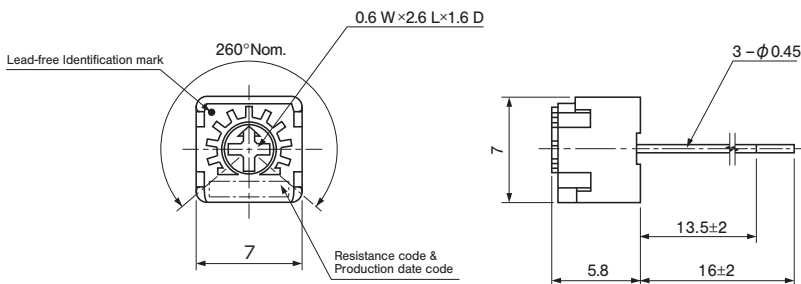


CT-6EW Top adjustment

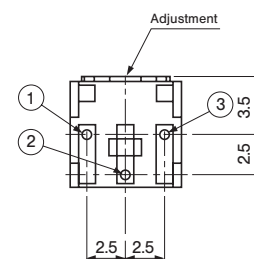
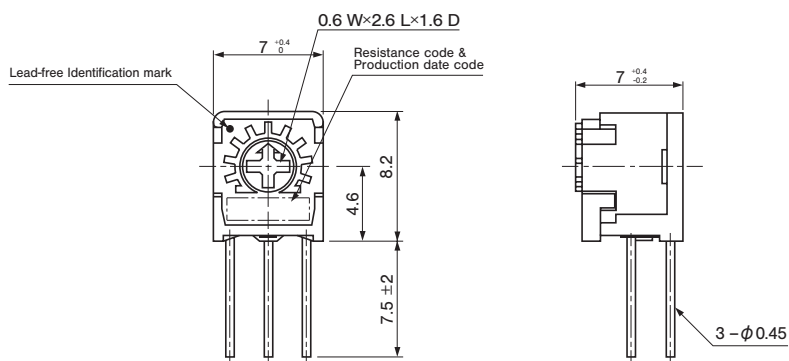


★ Pin pitch in W type is different from P type.

CT-6EV Top adjustment



CT-6ES Side adjustment

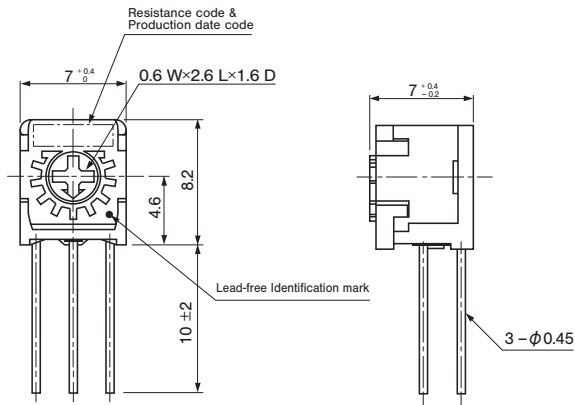


CT-6

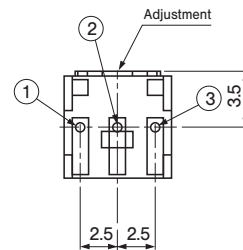
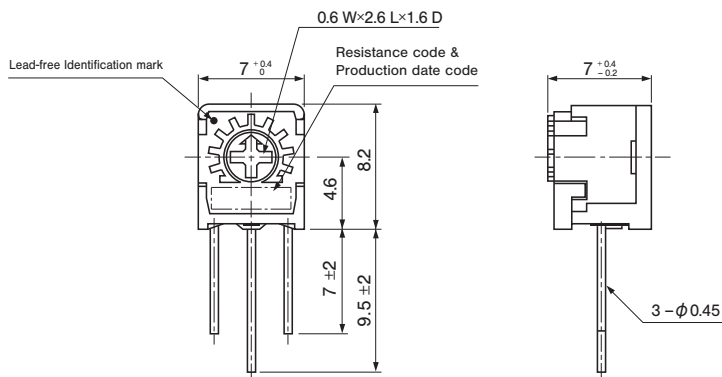
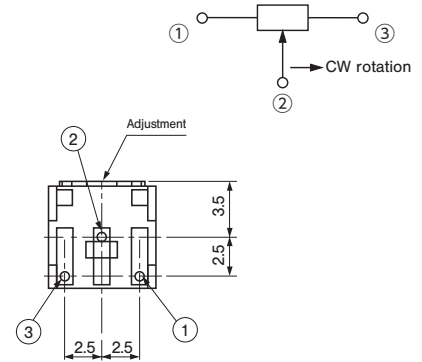
CERMET TRIMMERS

OUTLINE DIMENSIONS

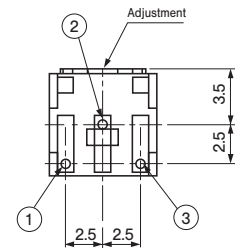
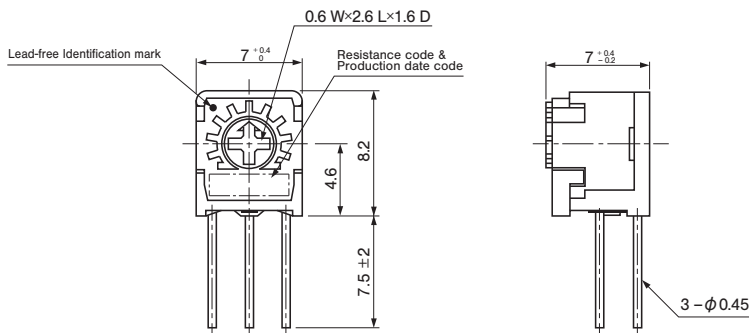
CT-6EX Side adjustment



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



CT-6EN Side adjustment



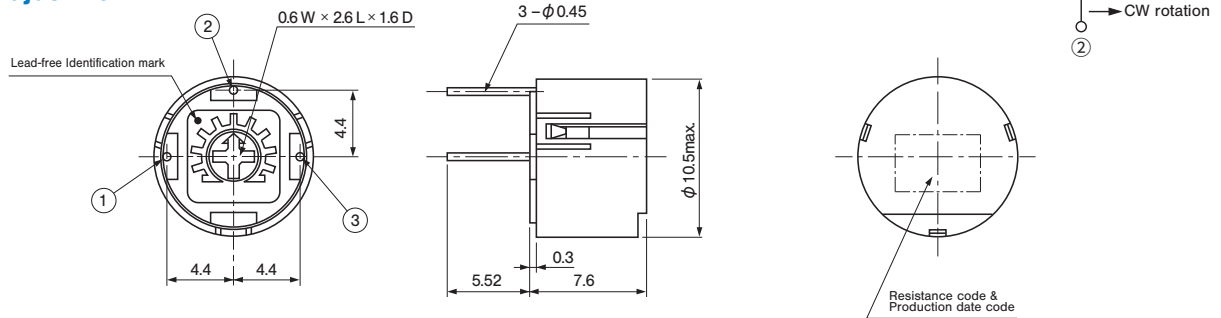
★ Terminals 1 & 3 position in N type is different from X type.

OUTLINE DIMENSIONS

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

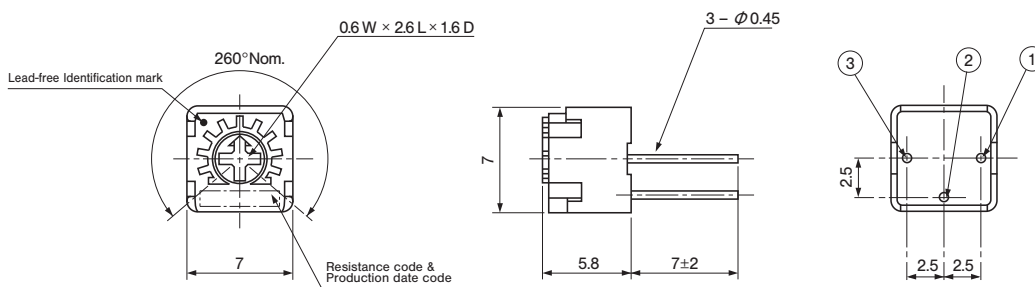
CT-6EF Rear adjustment

<受注生産品 Semi-standard products >



CT-6ER Top adjustment

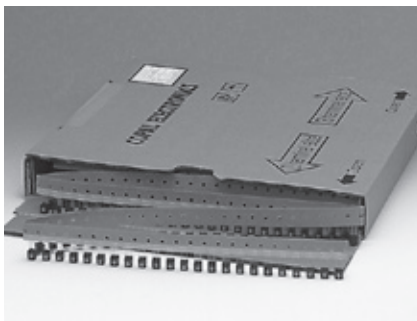
< Semi-standard products >



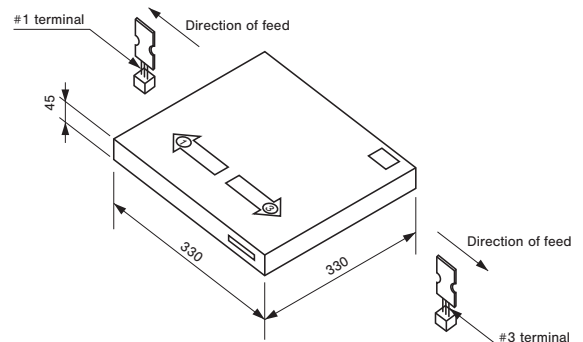
PACKAGING SPECIFICATIONS

<Taping packaging specifications>

- Taping version is packaged in 1000 pcs. per reel.
Orders will be accepted for units of 1000 pcs., i.e., 1000, 2000, 3000 pcs., etc.
- Taping version (ammo pack type) is boxed with one reel (1000 pcs.).



Ammo pack type



Ammo Pack

- Package size: 330 mm × 330 mm × 45 mm
- The leader and end of the tape have an empty part of minimum 300 mm respectively.
- There are two tape outlets on the package for different terminal alignment directions, for which details refer to the sketch above.
(e.g.) When the tape is fed from the right outlet marked ③, #3 terminal comes out first.
- Gross weight of the boxing version

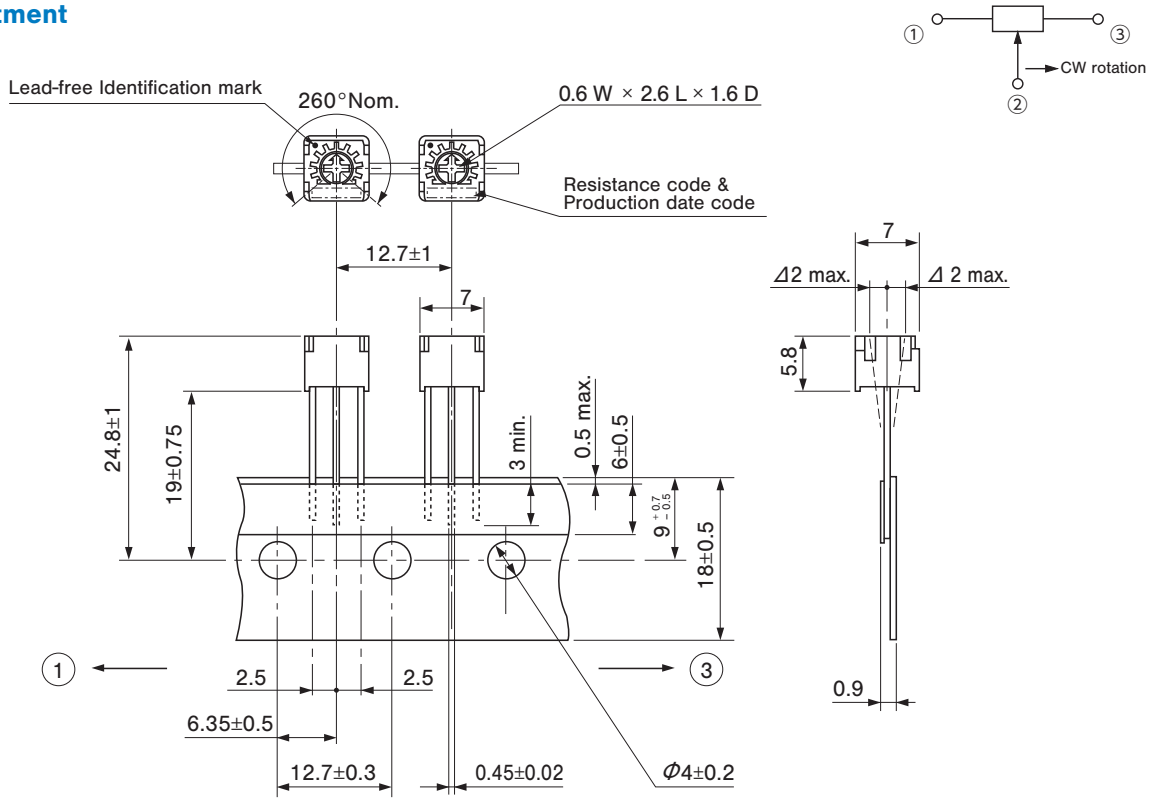
| | |
|-----|-----------------|
| ETV | : Approx. 840 g |
| ETH | : Approx. 930 g |
| ETP | : Approx. 850 g |

CT-6

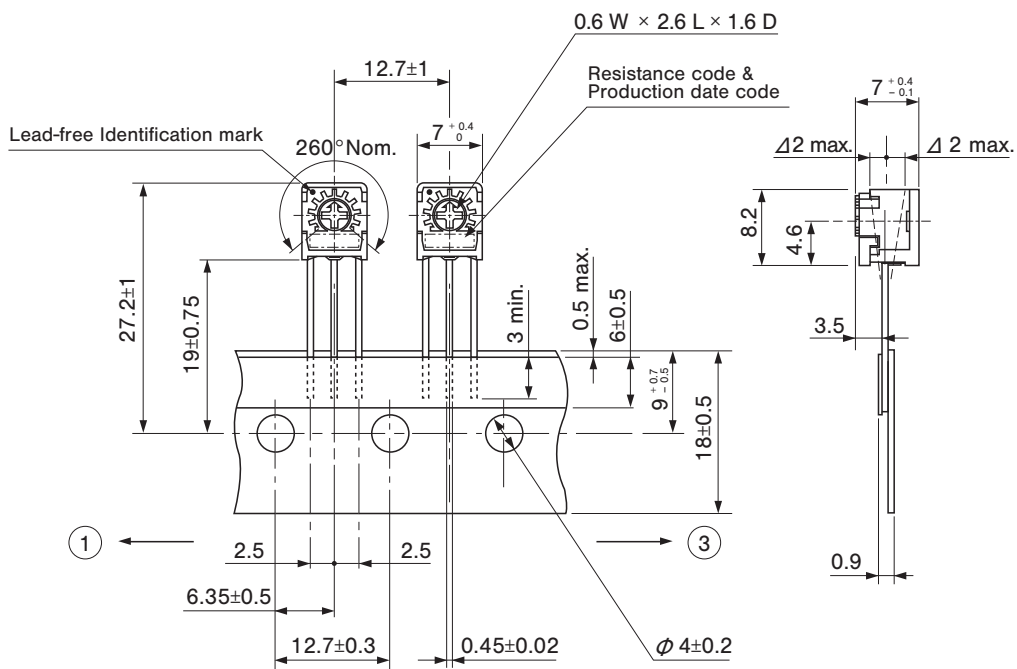
CERMET TRIMMERS

CT-6ETV Top adjustment

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

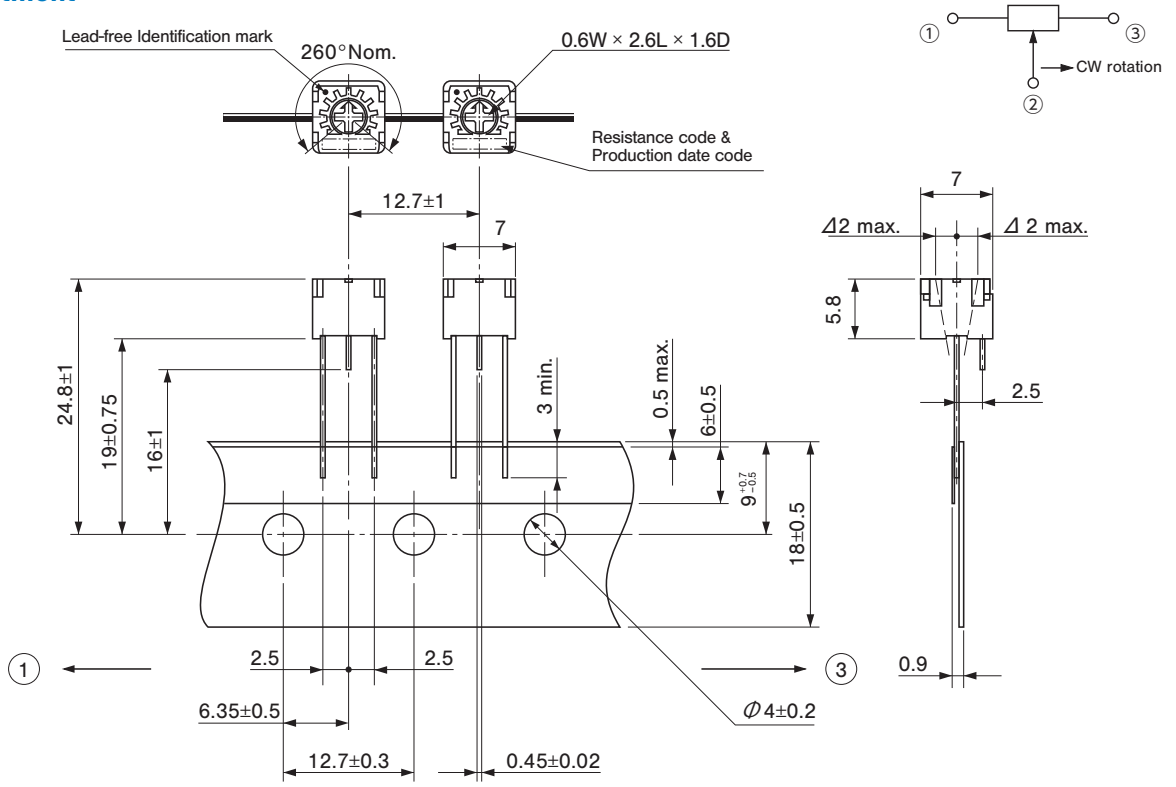


CT-6ETH Side adjustment



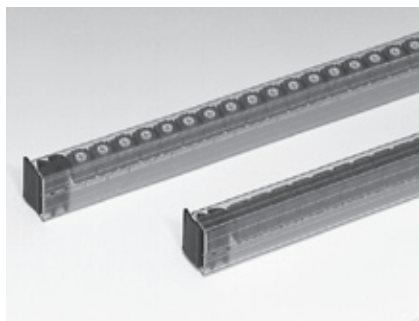
CT-6ETP
Top adjustment

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



<Magazine packaging specifications>

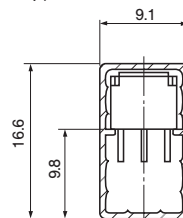
- Magazine is packaged 75 pcs. per stick.
Orders will be accepted for units of 75 pcs. i.e., 150, 225 pcs., etc.
- Magazine is packed 3000 pcs. sticks per box.



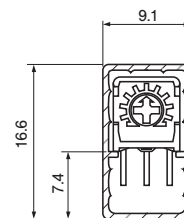
Plastic magazine type

<Typical>

Plastic magazine length = 580 mm
(Without rubber cap)



CT-6EMP

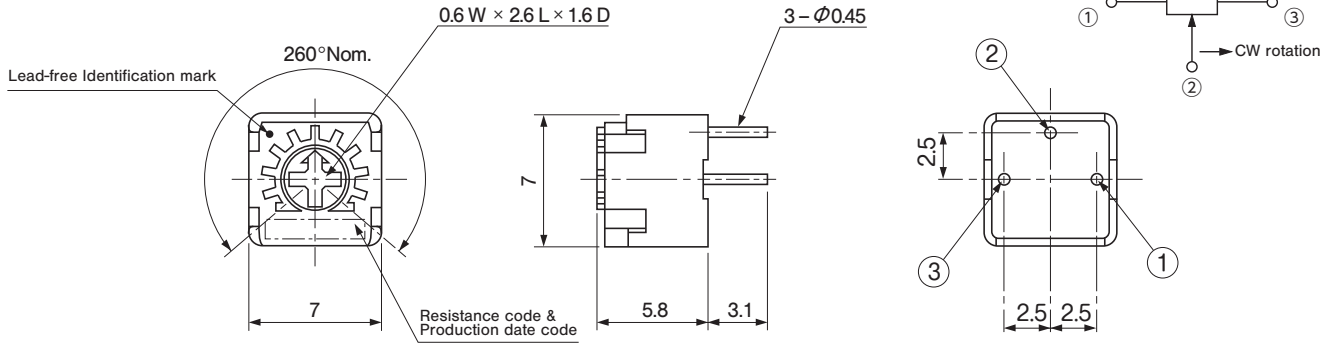


CT-6EMS

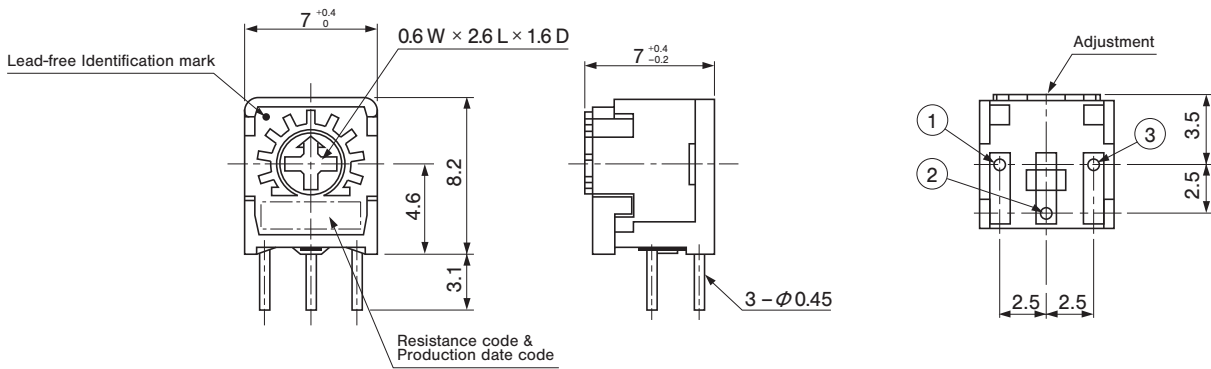
CT-6 CERMET TRIMMERS

CT-6EMP Top adjustment

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



CT-6EMS Side adjustment



<Bulk pack specifications>

- Unit of bulk pack in a plastic bag is 50 pcs. per pack.
- Boxing of bulk in a plastic bag is performed with 200 pcs. (CT-6EF is 100 pcs.) per box.

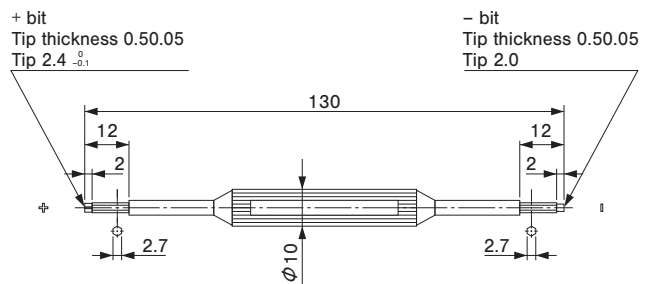
ADJUSTMENT TOOL, MODEL TA-64

- Good for both minus and cross slot rotors / shafts.
- Recommended for use with the following copal trimmers.

| Recommended models | |
|--------------------|-------|
| + bit | - bit |
| CT-6 | ST-4 |
| FT-63 | RJ-4 |
| | RJ-6 |
| | TM-7 |

Note : Please do not use the tool for purposes other than adjustment of electronic components.

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



Material : Polyoxymethylene