

----- Trimmer Potentiometers ----- PART NO. CE3ST-SMD-J

1. ELECTRICAL CHARACTERISTICS:

1-1. Total Nominal Resistance Value: $100\Omega \sim 2M\Omega$.

1-2. Resistance Tolerance:

Total Resistance shall be within $\pm 25\%$ of the nominal total resistance.

1-3. Resistance Variation Characteristics: B (Linear).

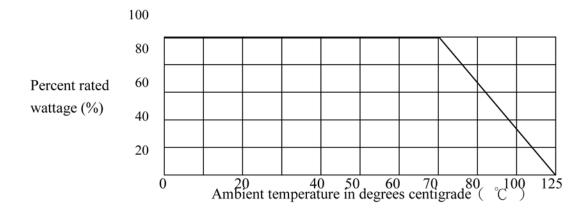
1-4. Residual Resistance Value:

The wiper shall be placed at the each end of the effective rotational angle and then the resistance between Terminal 1-2, and 2-3 shall be measured.

| Remind Total Resistance | Residual Resistance | | |
|-------------------------|--|--|--|
| $R < 300 \Omega$ | Less than 3Ω | | |
| $R \ge 300 \Omega$ | Less than 1% of the nominal total resistance | | |

1-5. Power Rating:

0.1W shall be the maximum power applied continuously to all parts of the resistor at an ambient temperature of 70° C and under. On condition that for the ambient temperature of 70° C $\sim 125^{\circ}$ C, the power shall be decreased as shown in the figure below.





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1-6. Voltage Rating:

Voltage rating shall be corresponding to the power rating, as determined from the following formula.

 $E : \sqrt{P \cdot R}$ where E : Rated Voltage (V)P : Power rating (W)

R: Total nominal resistance value (Ω)

In no case shall the rated voltage be greater than the applicable maximum value.

- 1-7. Maximum Rated Voltage: AC 20V · DC 20V.
- 1-8. Contact Resistance: Within \pm 5%.
- 1-9. Rotational Noise: Within \pm 5%.

2. Mechanical Specification Characteristics:

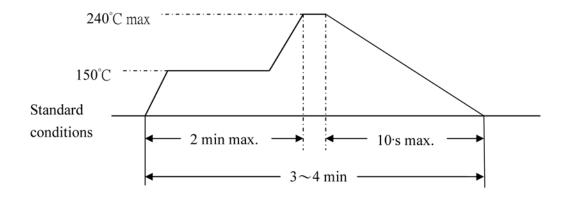
- 2-1. Total Rotation Angle: $250^{\circ} \pm 20^{\circ}$
- 2-2. Rotational Torque: $10.2 \sim 204.1$ gf-cm.

2-3. Resistance to Vibration:

Vibration rated of total resistance shall be within $\pm 20\%$.

2-4. Resistance Reflow Soldering Heat:

Resistance to reflow soldering heat shall be measured according to the following. (Temperature show the maximum value at the soldering portions of terminals.) The variation rate of the total resistance shall be within $\pm 2\%$.



3. Endurance Characteristics:

3-1. Working Temperature Range: -55°C ~ 125°C Storage temperature Range: -5°C ~ 40°C

3-2. Rotation Life:

The change in resistance shall not exceed $\pm 10\%$ after rotating slider in 20±2 cycles

(One cycle is one turn clockwise, then one turn counter clockwise), at a rate of $10 \sim 17$ cycles per min. In case nominal total resistance is less than 200Ω , the operating life is 10 cycles.

3-3. Resistance to Damp:

The change in resistance shall not exceed $\pm 5\%$ after resistors are left in a chamber for 24±8 hours at 40±2°C, 90 to 95% R.H. under no load and subsequently left for 1 hours and over at room temperature and humidity.

3-4. Endurance (Rated load):

The change in resistance shall not exceed $\pm 3\%$ after cycle "ON" for 1.5 hours and "OFF" for 0.5 being repeated in a chamber at $70^{\circ}\text{C} \pm 3^{\circ}\text{C}$ for 1000 ± 12 hours under rated voltage being left for 1 hours and over at room temperature and humidity.

3-5. Humidity Load Life:

The change in resistance shall not exceed $\pm 5\%$ after cycles "ON" for 1.5 hours and "OFF" for 0.5 hours being repeated in a chamber at 40 ± 2 °C, 90 to 95% R.H. for 1000 ± 12 consecutive hours under rated voltage subsequently being left for 1 hours and over at room temperature and humidity.

3-6. Temperature Coefficient:

Operating Temperature -55° C ~ 125° within ± 250 ppm/ $^{\circ}$ C.

4. Packing:

2,000pcs per reel

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| 3mm SMT Trimmer Potentiometer | | | | Type No. | | CE3ST-SMD-J | | |
|-------------------------------|---------|----------|---------------------------|-----------------------|------------------|-----------------|----------------------------|--|
| Resistance | Mark | Choose | Customer's Part No | Resistance | Mark | Choose | Customer's Part No | |
| 100Ω | 12 | Choose | Customer's Fart No | $\frac{1}{220\Omega}$ | L2 | Choose | Customer's Part No | |
| 200Ω | 22 | | | 330Ω | E2 | | | |
| 300Ω | 32 | | | 470Ω | H2 | | | |
| 500Ω | 52 | | | 2.2K | L3 | | | |
| 1K | 13 | | | 3.3K | E3 | | | |
| 2K | 23 | | | 4.7K | H3 | | | |
| 3K | 33 | | | 6.8K | X3 | | | |
| 5K | 53 | | | 22K | L4 | | | |
| 10K | 14 | V | | 33K | E4 | | | |
| 20K | 24 | V | | 47K | H4 | | | |
| 30K | 34 | V | | 220K | L5 | | | |
| 50K | 54 | | | 330K | E5 | | | |
| 100K | 15 | V | | 470K | H5 | | | |
| 200K | 25 | V | | 4/0K | 113 | | | |
| 300K | 35 | | | | | | | |
| 500K | 55 | | | | | | | |
| 1M | 16 | | | | | | | |
| 2M | 26 | | | | | | | |
| Z1 V1 | 20 | | | | | + | | |
| | | | | | | | | |
| | | | | | | | | |
| (A) (B) | | | (A) | (A) (B) | | | | |
| 1 1 2 | | | L | 22 | 2 | 10 ² | | |
| 2 | 2 | 3 | | E | 33 | 3 | 10 10 3 | |
| 3 | 3 | 4 | | H | 47 | 4 | 10 4 | |
| 5 | 5 | 5 | | 111 | - ' ' | 5 | 10 5 | |
| 3 | | | | | | + 3 | 10 | |
| | | | | | | | | |
| | : (A)3(| B)4→3*10 | $0^4 = 30 \text{K}\Omega$ | | : (A)L(B) | 3→22 *10 | $r^2 = 2.2 \text{K}\Omega$ | |

STANDARD RESISANCE TAPER

Rotary, Slide, Equalxer & Trimmer (only apply to poteniometer)

