



24mm Commercial potentiometer



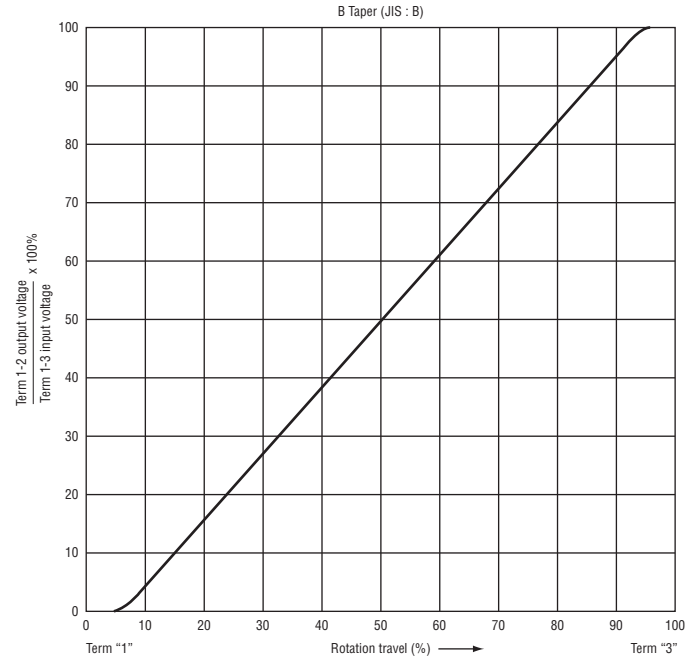
Mechanical specification

| | | |
|-------------------------|---|------------|
| 1. Outside dimension | refer to diagram (page 2) | |
| 2. Total rotation angle | degree | 300 ± 5° |
| 3. Rotation torque | speed 60°/sec. | 20-200g/cm |
| 4. Terminal strength | more than 500g/cm/10 ± 1sec. | |
| | soldering heat 350 ± 5°C/3sec. 200g/cm/10 ± 1sec. | |
| | resist change within ±2% | |

Electrical specification

| | | |
|---|----------------------------------|-------------------------|
| 1. Overall resistance & tolerance | terminal 1-3 | 10KΩ ± 20% |
| 2. Tap resistance & tolerance | terminal 1-4 | Ω ± % |
| 3. Rated wattage | temp 0 to 50°C | 0.5W |
| 4. Maximum working voltage | | 500V |
| 5. Resistance taper measuring point & tolerance | | B50% point 40 to 60% |
| 6. Residual resistance | terminal 1/3 side | less than 20/20Ω |
| 7. Tap residual resistance | terminal 4 side | less than 100Ω |
| 8. Slide noise | speed 60°/1sec. | less than 47mV |
| 9. Insulation resistance | more than 100MΩ (DC 500V) | |
| 10. Withstand voltage | AC 500V 1 minute | |
| 11. Tracking error | | |
| 12. Switch contact resistance | MΩ | less than mΩ |
| 13. Switch rating | | |
| 14. Usable temperature range | from -10°C to +70°C | |
| 15. VR Life | 15,000 ± times | |
| | resistance change: within ± % | |
| | slide noise: less than mV | |
| 16. SW Life | ± times | |
| | contact resistance: less than mΩ | |

Standard resistance taper



Common specification of lead-free soldering for potentiometers

The specification below is based on testing results of 1.6mm thickness single layer printed circuit board.

- For Manual Soldering
 - 1.1 to be performed within 3 seconds at 350°C or below.
- For automated or semi-automated soldering equipment:
 - 2.1 Flux of 0.82 specific gravity, applied by foam fluxer, shall be used. Foam head shall be limited to the height which is half thickness of printed circuit board to be soldered. No flux should be allowed to run up onto resistive element board of potentiometer and the surface of printed circuit board.
 - 2.2 Regarding preheating, the entire flow duration should not exceed 2 minutes, and soldering surface temperature (undersurface of PCB) shall be settled within 100°C.
 - 2.3 Solder dipping is to be performed within 4 seconds at 260°C or below.
- For potentiometer with centre detent or multiple detents, its shaft or lever should be settled in relevant detent position prior to soldering process.
- Regardless of soldering facility and method, solder dipping or solder smearing must not be carried out more than once.

NOTE: This specification is not recommended for, and applicable in, reflow soldering.



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