Model 44

Cermet Trimming Potentiometer

Features:

- Space saving SMD package for the most compact board designs ٠
- Sealed to withstand aggressive water wash •
- Long life—set and forget construction •
- BI quality and reliability •
- Available in top and side adjustment versions and J-Hook or gull wing • termination

Applications:

- Any application requiring adjustability or calibration
- Medical

Electrical

Consumer electronics

| Standard resistance range | 10 Ohms to 2 Megohms | | |
|-------------------------------|--|--|--|
| Standard resistance tolerance | ±10% (<100 Ohms = ±20%) | | |
| Input voltage | 300 Vdc max. or rms not to exceed power rating | | |
| Slider current | 100 mA max. or within rated power, whichever is less | | |
| Power rating | 0.25 Watts at 85°C derating to 0 at 150°C | | |
| End resistance | 1% or 2 Ohms max., whichever is greater | | |
| Actual electrical travel | 9 turns nominal | | |
| Dielectric strength | 600 Vrms | | |
| Insulation resistance | 1,000 Megohms minimum | | |
| Resolution | Essentially infinite | | |
| Contact resistance variation | 1% or 3 Ohm max., whichever is greater | | |

Environmental

| Seal | 85°C Fluorinert [®] (No Leaks) |
|-----------------------------|---|
| Temperature coefficient | ±100 ppm/°C (<100 Ohms = ±250 ppm/°C) |
| Operating temperature range | -65°C to +150°C |
| Thermal shock | Five cycles –65°C to +150°C (2% ΔRT, 1% ΔVR) |
| Moisture resistance | Ten 24 hour cycles (2% ΔRT, IR 10 Megohms min.) |
| Shock | 6 ms saw-tooth, 100 G's (1% ΔRT, 1% ΔVR) |
| Vibration | 20 G's, 10 to 2,000 Hz (1% ΔRT, 1% ΔVR) |
| Rotational life | 200 cycles (3% ΔRT, 1% CRV) |
| Load life | 1,000 hours at 85°C & 0.25 Watts (2% ΔRT, 1% CRV) |
| Resistance to solder heat | 260°C for 10 sec. (1% ΔRT) |
| Temperature exposure | 215°C for 3 min. maximum (1% ΔRT) |
| Solderability | Per MIL-STD-202, method 208 |

General Note

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Mechanical

| Mechanical stops | Clutch action, both ends |
|------------------|------------------------------|
| Torque, starting | 3 ozin. max. (0.021 N-m) |
| Weight | 0.01 oz. nominal (0.3 grams) |

Packaging

Standard: Embossed Tape & Reel. All units oriented with #1 pin to the right of the direction of feed.

| | 13" Reel | | | 7" Reel | | |
|------|-----------------|----------------|-------------|-------------|------------|--|
| | Pin Style | G & J | W | G & J | W | |
| Tape | Width = | 12 mm | 16 mm | 12 mm | 16 mm | |
| | Sprocket = | 4 mm pitch | 4 mm pitch | 4 mm pitch | 4 mm pitch | |
| | Capacity = | 1,000 units | 1,000 units | 500 units | 250 units | |
| Reel | Diameter = | 13" (330.2 mm) | | 7" (178 mm) | | |

Option: Anti-static tubes. All units oriented with #1 pin to same side. Tube capacity = 100 units.



Circuit Diagram



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General Note

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Top Adjustment



Solder Pad Layout



Side Adjustment



Standard Resistance Values

| 10 | 100 | 1K | 10K | 50K | 250K | 2Meg |
|----|-----|----|-----|------|------|------|
| 20 | 200 | 2К | 20K | 100K | 500K | |
| 50 | 500 | 5K | 25K | 200K | 1Meg | |

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