

Single Turn Trimmer

Model 83



Features:

- 1/4" diameter
- Single turn
- Cermet



Electrical

| | |
|---------------------------------------|--|
| Standard Resistance Range, Ohms | 10 to 1Meg |
| Standard Resistance Tolerance | ±10% (<100 Ohms = ±20%) |
| Input Voltage, Maximum | 200 Vdc or rms not to exceed power rating |
| Slider Current, Maximum | 100mA or within rated power, whichever is less |
| Power Rating, Watts | 0.5 at 70°C derating to 0 at 150°C |
| End Resistance, Maximum | 2 Ohms |
| Actual Electrical Travel, Nominal | 220° |
| Dielectric Strength | 400 Vrms |
| Insulation Resistance, Minimum | 100 Megohms |
| Resolution | Essentially infinite |
| Contact Resistance Variation, Maximum | 1% or 1 Ohms, whichever is greater |

Environmental

| | |
|----------------------------------|--|
| Seal | 85°C Fluorinert® (No Leaks) |
| Temperature Coefficient, Maximum | ±100ppm/°C |
| Operating Temperature Range | -55°C to +125°C |
| Thermal Shock | 5 cycles, -55°C to +125°C (1% ΔRT, 1% ΔVR) |
| Moisture Resistance | Ten 24 hour cycles (1% ΔRT, IR 1,000 Megohms Min.) |
| Shock, 6ms Sawtooth | 100G's (1% ΔRT, 1% ΔVR) |
| Vibration | 20G's, 10 to 2,000 Hz (1% ΔRT, 1% ΔVR) |
| High Temperature Exposure | 250 hours at 125°C (2% ΔRT, 2% ΔVR) |
| Rotational Life | 200 cycles (3% ΔRT) |
| Load Life at 0.5 Watts | 1,000 hours at 70°C (2% ΔRT) |
| Resistance to Solder Heat | 350°C for 3 sec. (1% ΔRT) 260°C for 10 sec. (1% ΔRT) 215°C for 120 sec. (1% ΔRT) |

Mechanical

| | |
|--------------------------|-----------------------|
| Mechanical Stops | Solid |
| Torque, Starting Maximum | 3 oz.-in. (0.021 N-m) |
| Weight, Nominal | .03 oz. (0.85 grams) |

General Note
TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

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Issue B 04/2019 Page 1

Packaging Information

Standard: Boxes

Capacity = 100 Units

Option: Tubes (83Y only)

All units oriented with #1 pin to same side.

| | | | |
|-----------|----------|---|----------|
| Magazine: | Width | = | 0.30" |
| | Height | = | 0.35" |
| | Length | = | 19.1" |
| | Capacity | = | 50 Units |

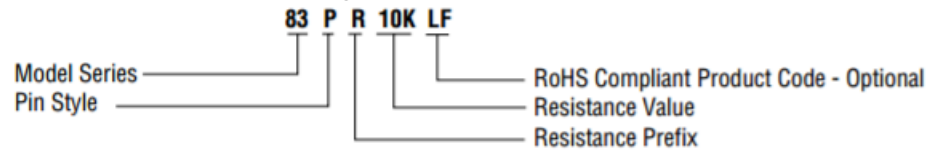
Option: Embossed Tape & Reel (83P only)

All units oriented with #1 pin to the right of the direction of feed.

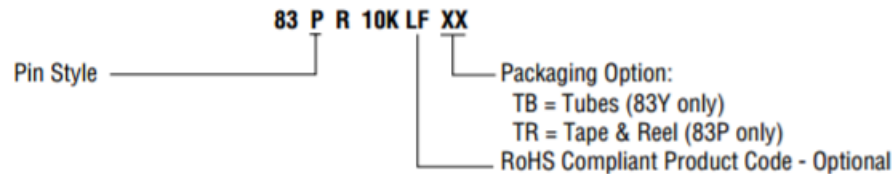
| | | | |
|-------|----------|---|--------------|
| Tape: | Width | = | 16 mm |
| | Sprocket | = | 4 mm pitch |
| | Capacity | = | 1,000 Units |
| Reel: | Diameter | = | 14" (356 mm) |

Ordering Information

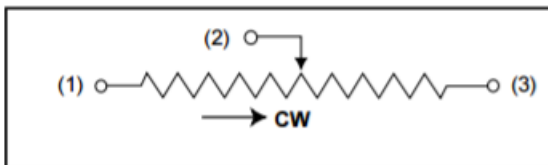
Standard:



Options:



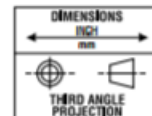
CIRCUIT DIAGRAM



NOTES

Metric equivalents, based on 1 inch = 25.4mm are rounded to the same number of significant figures as in the original English units and are provided for general information only.

Tolerances unless otherwise specified:
 Linear = ± .01 inches (.25mm)
 Angular = ± 2 degrees

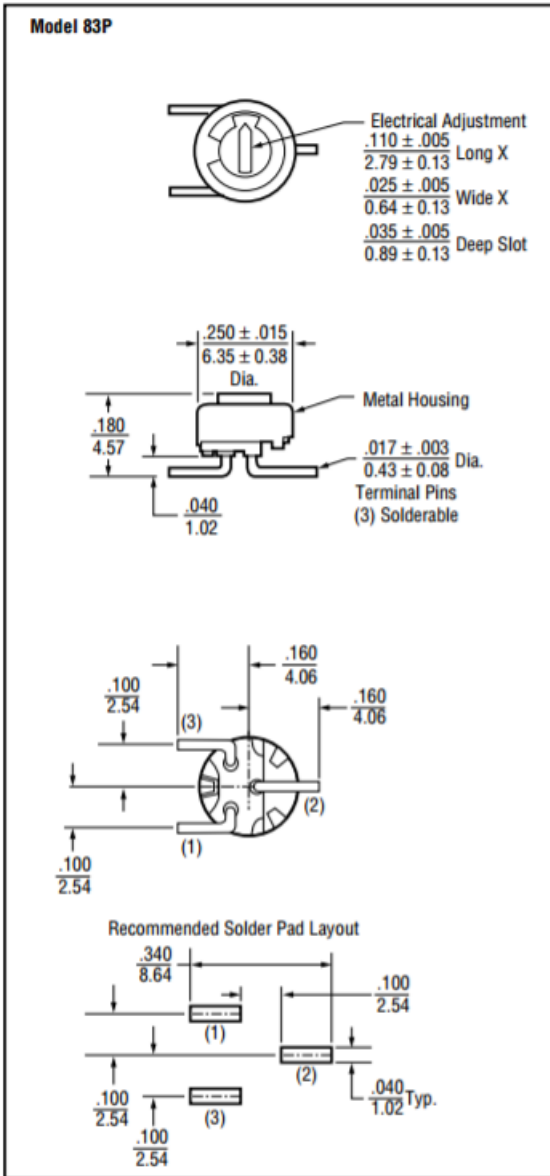


General Note

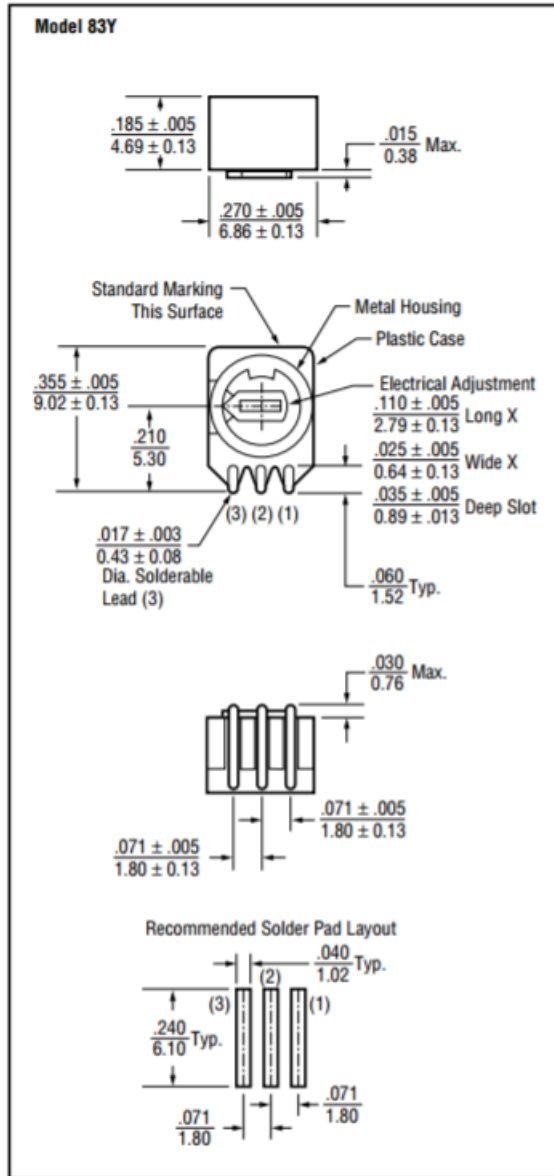
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Outline Drawings

TOP ADJUSTMENT (Inch/mm)



SIDE ADJUSTMENT (Inch/mm)



STANDARD RESISTANCE VALUES, OHMS

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

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