

Single Turn Trimmer

Model 83



Features:

- 1/4" diameter
- Single turn
- Cermet



Electrical

Standard Resistance Range, Ohms	10 to 1Meg
Standard Resistance Tolerance	$\pm 10\%$ (<100 Ohms = $\pm 20\%$)
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	$\pm 100 \text{ ppm}/^\circ\text{C}$
Operating Temperature Range	-55°C to +125°C
Thermal Shock	5 cycles, -55°C to +125°C (1% Δ RT, 1% Δ VR)
Moisture Resistance	Ten 24 hour cycles (1% Δ RT, IR 1,000 Megohms Min.)
Shock, 6ms Sawtooth	100G's (1% Δ RT, 1% Δ VR)
Vibration	20G's, 10 to 2,000 Hz (1% Δ RT, 1% Δ VR)
High Temperature Exposure	250 hours at 125°C (2% Δ RT, 2% Δ VR)
Rotational Life	200 cycles (3% Δ RT)
Load Life at 0.5 Watts	1,000 hours at 70°C (2% Δ RT)
Resistance to Solder Heat	350°C for 3 sec. (1% Δ RT) 260°C for 10 sec. (1% Δ RT) 215°C for 120 sec. (1% Δ RT)

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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TT Electronics | BI Technologies
413 Rood RD, Suite 7
Calexico, CA 92231
Ph: + 1 (714) 447-2345
www.ttelectronics.com/bi-technologies

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

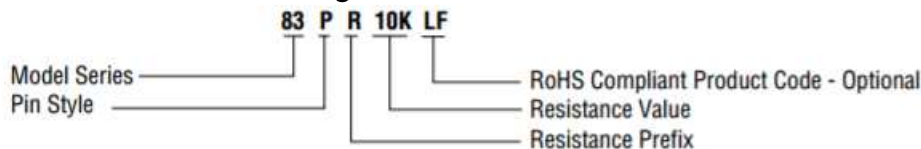
Option: Embossed Tape & Reel (83P only)

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

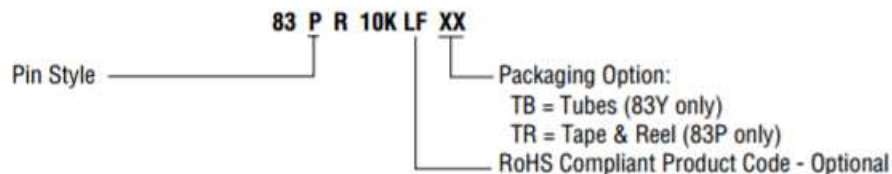
Tape:	Width	=	16 mm
	Sprocket	=	4 mm pitch
	Capacity	=	1,000 Units
Reel:	Diameter	=	14" (356 mm)

Ordering Information

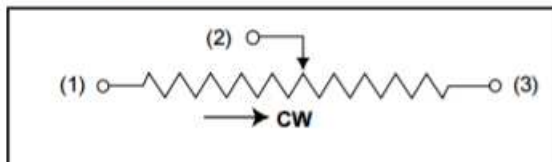
Standard:



Options:



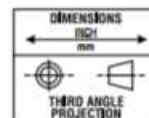
CIRCUIT DIAGRAM



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 = $\pm .01$ inches (.25mm)
Angular = ± 2 degrees



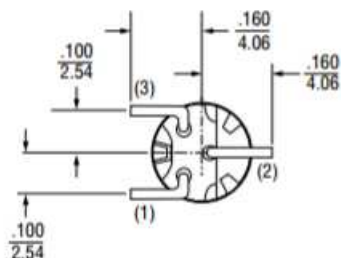
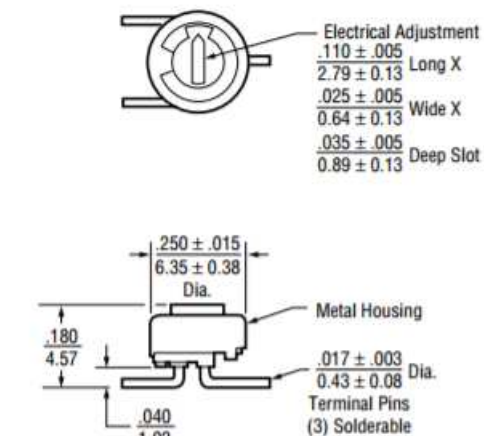
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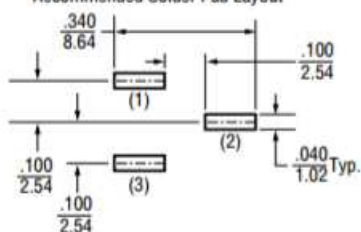
Outline Drawings

TOP ADJUSTMENT (Inch/mm)

Model 83P

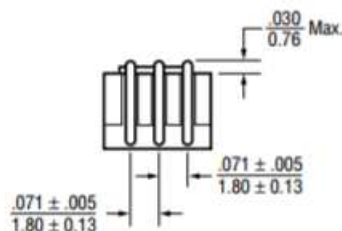
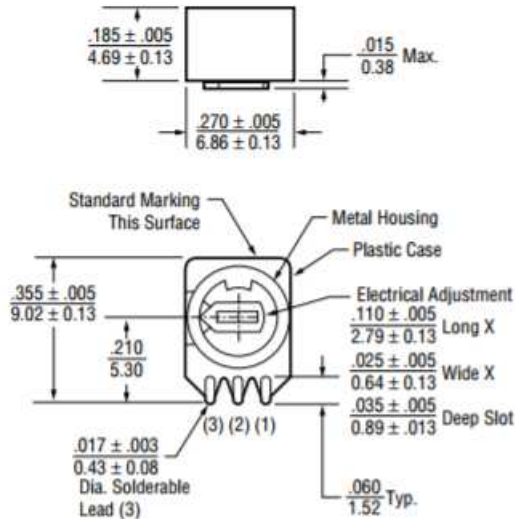


Recommended Solder Pad Layout

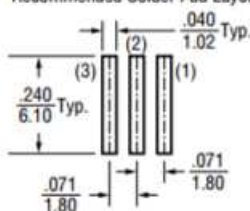


SIDE ADJUSTMENT (Inch/mm)

Model 83Y



Recommended Solder Pad Layout



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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Issue B 04/2019 Page 3