# Model 23

# 4mm Square Sealed Single Turn Surface Mount Cermet Trimming Potentiometer



### **ELECTRICAL**

Standard Resistance Range	100 Ohms to 2 Megohms
Standard Resistance Tolerance	±20%
Input Voltage	200 Vdc Max. or rms not to exceed power rating
Power Rating	0.25 Watts at 70°C derating to 0 at 125°C
End Resistance	1% or 3 Ohms Max., whichever is greater
Actual Electrical Travel	200° nominal
Dielectric Strength	500 Vrms
Insulation Resistance	100 Megohms Min.
Resolution	Essentially infinite
Contact Resistance Variation	2% or 3 Ohms Max., whichever is greater

### **ENVIRONMENTAL**

Seal	85°C Fluorinert® (No Leaks)
Temperature Coefficient	$\pm 100 \text{ ppm/°C } (<200 \text{ Ohms or } >1 \text{Meg} = \pm 250 \text{ ppm/°C})$
Operating Temperature Range	-55°C to +125°C
Thermal Shock	Five cycles -55°C to +125°C (2% ΔRT, 2% ΔVR)
Moisture Resistance	Ten 24 hour cycles (3% ΔRT)
Shock	6 ms sawtooth, 100 G's (1% ΔRT, 1% ΔVR)
Vibration	20 G's, 10 to 2,000 Hz (1% ΔRT, 1% ΔVR)
High Temperature Exposure	250 hours at 125°C (2% ΔRT, 2% ΔVR)
Rotational Life	100 cycles (5% ΔRT)
Load Life	1,000 hours at 70°C & 0.25 Watts (3% ΔRT, 1% ΔVR)
Resistance to Solder Heat	260°C for 10 sec. (1% ΔRT)

### **MECHANICAL**

Mechanical Stops	Solid
Stop Strength	4 ozin. Min. (300 g-cm)
Torque	2 ozin. Max. (150 g-cm)
Weight	0.005 oz. nominal (0.14 grams)

Specifications subject to change without notice. Fluorinert® is a registered trademark of 3M Company.

**BI Technologies Corporation** 

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January 27, 2011

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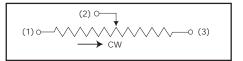
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### STANDARD RESISTANCE VALUES

100	1K	10K	100K	1Meg
200	2K	20K	200K	2Meg
500	5K	50K	500K	

### **CIRCUIT DIAGRAM**



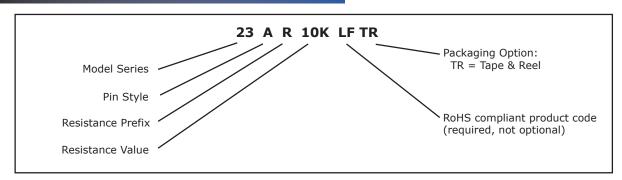
### **PACKAGING**

Standard (no code): Boxes. Capacity = 100 units.

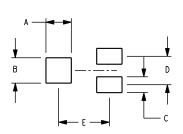
Option (TR code): Tape & Reel. All units oriented with #2 (slider) pin adjacent to sprocket holes.

	Pin Style	A,B	S
Таре	Width =	12 mm	12 mm
	Sprocket =	4 mm pitch	4 mm pitch
	Capacity =	500 units	750 units
Reel	Diameter =	7" (178 mm)	10" (254 mm)

## **ORDERING INFORMATION**



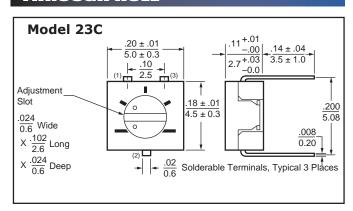
#### RECOMMENDED PCB LAYOUT



## Inch/mm

	23A	23B	238
Α	.079 2.00	<u>.051</u>	<u>.079</u> 2.0
В	<u>.079</u> 2.00	<u>.079</u> 2.0	2.0
С	.051 1.3	.051 1.3	.051 1.3
D	<u>.091</u> 2.3	<u>.091</u> 2.3	<u>.10</u> 2.54
Ε	157 4.00	<u>.217</u> 5.5	<u>.137</u> 3.48

### **THROUGH HOLE**



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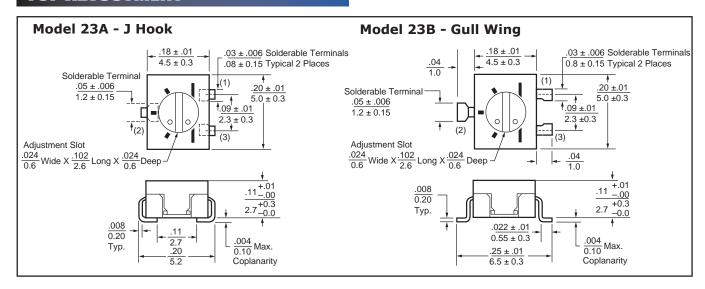
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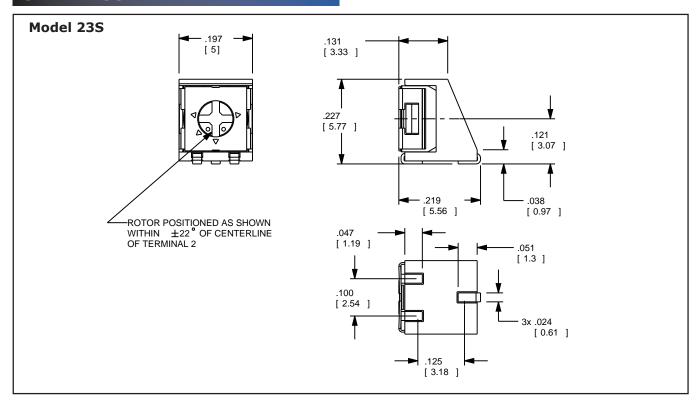


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### **TOP ADJUSTMENT**



#### **SIDE ADJUSTMENT**



- 1. Dimensions in inch/mm
- 2. Tolerances  $\pm$  0.01 inch (0.3 mm) unless otherwise specified

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