

## Features

- Carbon element
- Insulated shaft
- Snap-in clip
- Center detent option
- RoHS compliant\*

## Applications

- Audio/TV sets
- Car radio
- Amplifiers/mixers/drum machines/synthesizers
- PCs/monitors
- Appliances

# PTV09 Series - 9 mm Potentiometer

### Electrical Characteristics

Taper .....Linear, audio  
 Standard Resistance Range  
 .....1 K ohms to 1 M ohms  
 Standard Resistance Tolerance ....±20 %  
 Residual Resistance  
 .....500 ohms or ±1 % max.

### Environmental Characteristics

Operating Temperature  
 .....-10 °C to +50 °C  
 Power Rating  
 (Linear and Audio) .....0.05 watt  
 Maximum Operating Voltage  
 (Linear and Audio).....20 VDC, 50 VAC  
 Sliding Noise .....100 mV max.

### Mechanical Characteristics

Mechanical Angle .....280 ° ±5 °  
 Rotational Torque .....10 to 100 g-cm  
 Detent Torque.....40 to 200 g-cm  
 Stop Strength.....2 kg-cm min.  
 Rotational Life .....10,000 cycles  
 Soldering Condition  
 .....300 °C max. within 3 seconds  
 Hardware .....No hardware supplied

### How To Order

**PTV09A - 2 0 20 F - B 203**

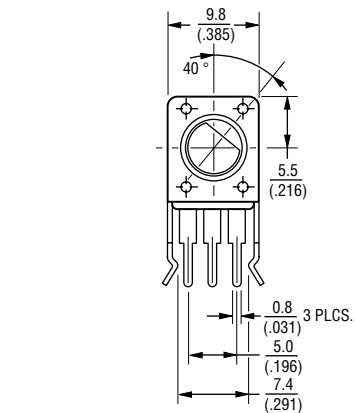
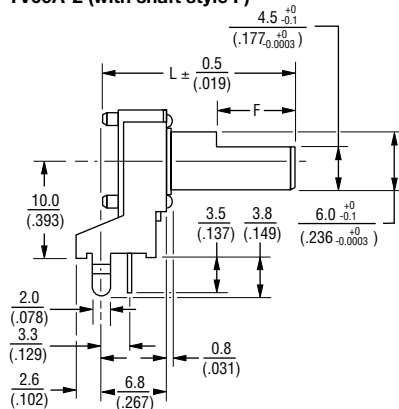
Model \_\_\_\_\_  
 Terminal Configuration (Pin Layout)  
 • 2 = PC Pins Vertical/Down Facing  
 • 4 = PC Pins Horizontal/Rear Facing  
 Option \_\_\_\_\_  
 • 0 = No Detent  
 • 2 = Center  
 Standard Shaft Length \_\_\_\_\_  
 • 15 = 15 mm  
 • 20 = 20 mm  
 • 25 = 25 mm  
 • 30 = 30 mm  
 Shaft Style \_\_\_\_\_  
 • F = Flat Type Insulated Shaft  
 • S = Insulated Knurled (24 Teeth)\*  
 • U = Insulated Knurled (40 Teeth)  
 Resistance Taper \_\_\_\_\_  
 • A = Audio Taper  
 • B = Linear Taper  
 Resistance Code (See Table) \_\_\_\_\_

Other styles available.

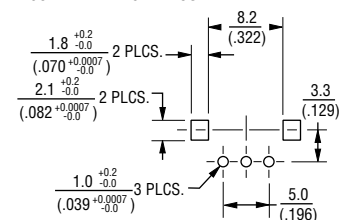
\*Available in 20 mm or 25 mm shaft lengths only.

### Product Dimensions

PTV09A-2 (with shaft style F)



RECOMMENDED PCB LAYOUT



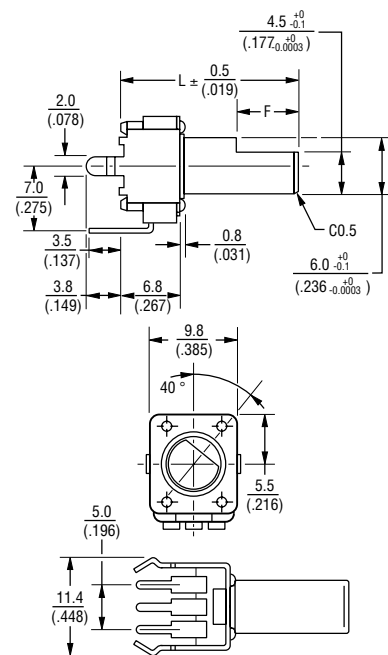
SHAFT SHOWN IN CCW POSITION

### F-Type Shaft

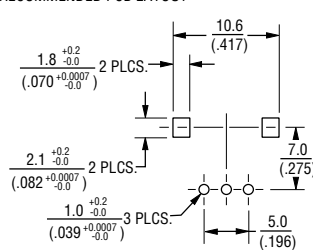
L	15	20	25	30
	(.591)	(.787)	(.984)	(1.181)
F	6	7	12	12
	(.236)	(.275)	(.472)	(.472)

DIMENSIONS ARE:  $\frac{\text{MM}}{\text{(INCHES)}}$

PTV09A-4 (with shaft style F)



RECOMMENDED PCB LAYOUT



SHAFT SHOWN IN CCW POSITION

### Standard Resistance Table

Resistance (Ohms)	Resistance Code
1,000	102
2,000	202
5,000	502
10,000	103
20,000	203
50,000	503
100,000	104
200,000	204
500,000	504
1,000,000	105

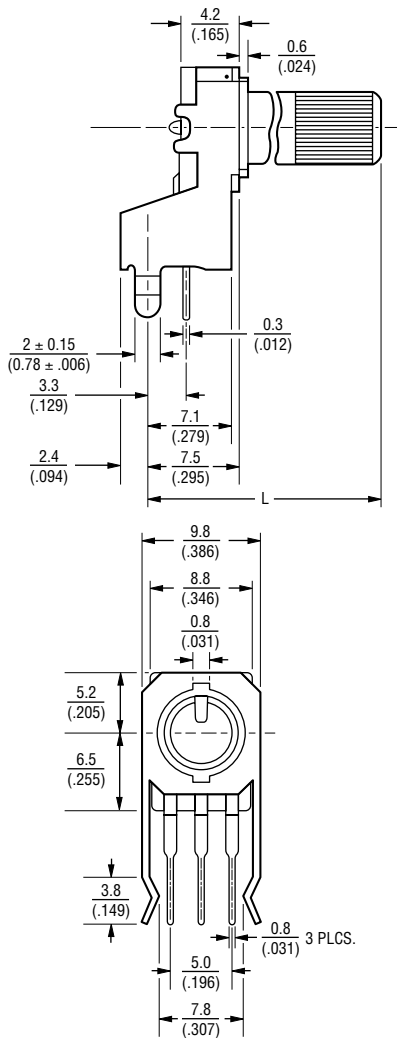
\*RoHS Directive 2002/95/EC Jan 27 2003 including Annex. Specifications are subject to change without notice. Customers should verify actual device performance in their specific applications.

# PTV09 Series - 9 mm Potentiometer

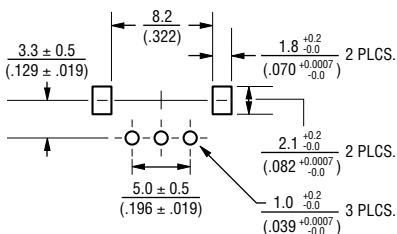
**BOURNS®**

## Product Dimensions

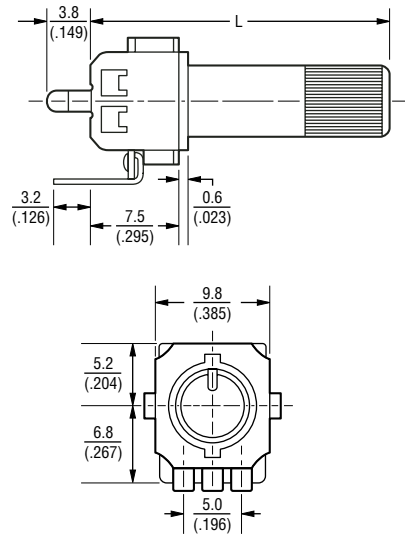
**PTV09A-2**  
(with shaft style U)



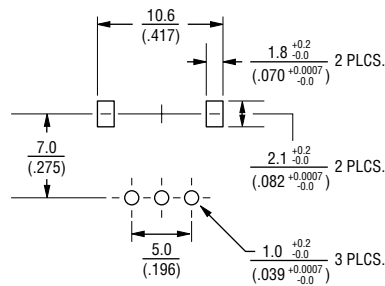
RECOMMENDED PCB LAYOUT



**PTV09A-4**  
(with shaft style U)



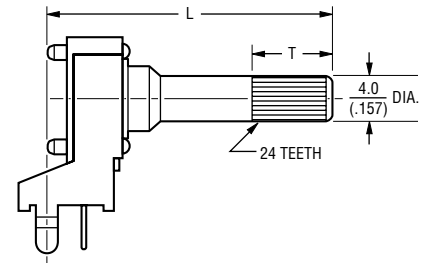
RECOMMENDED PCB LAYOUT



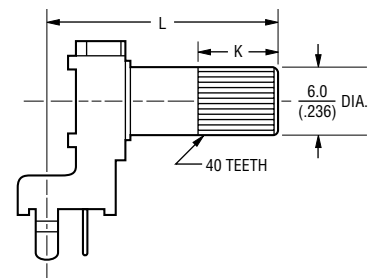
DIMENSIONS ARE:  $\frac{\text{MM}}{\text{(INCHES)}}$

## Shaft Styles

**S-Type**



**U-Type**



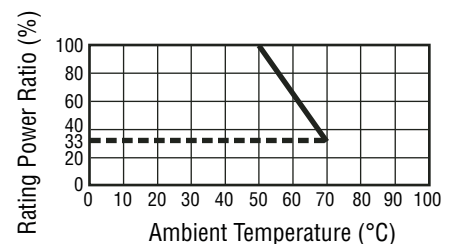
## S-Type Shaft

L	20	25
	(.787)	(.984)
T	7	7
	(.275)	(.275)

## U-Type Shaft

L	15	20	25	30
	(.591)	(.787)	(.984)	(1.181)
K	6	7	7	7
	(.236)	(.275)	(.275)	(.275)

## Derating Curve



REV. 04/06

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