

## Features

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



## PTV09 Series - 9 mm Potentiometer

### Electrical Characteristics

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

### Environmental Characteristics

Operating Temperature...  $-10^\circ\text{C}$  to  $+50^\circ\text{C}$   
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.....  $280^\circ \pm 5^\circ$   
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  
.....  $300^\circ\text{C}$  max. within 3 seconds  
Hardware ..... No hardware supplied

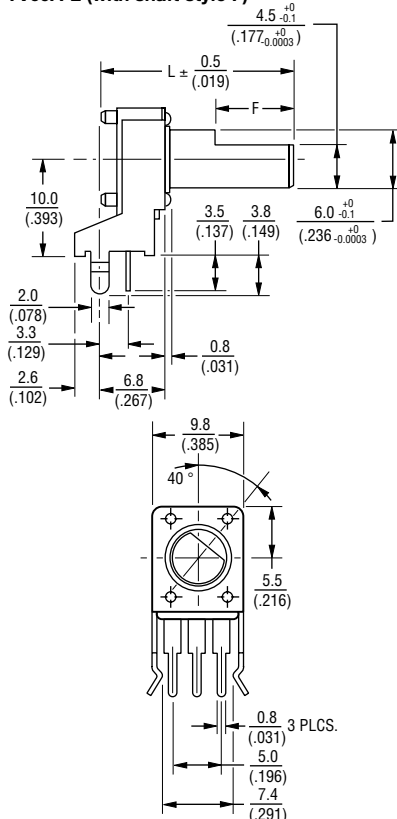
### How To Order

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

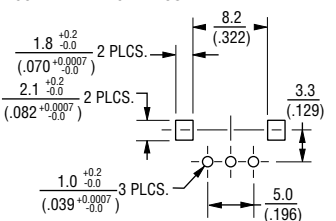
Model \_\_\_\_\_  
Terminal Configuration (Pin Layout)  
• 2 = PC Pins Vertical/Down Facing  
• 4 = PC Pins Horizontal/Rear Facing  
Option \_\_\_\_\_  
• 0 = No Detent  
• 2 = Center  
Standard Shaft Length \_\_\_\_\_  
• 15 = 15 mm  
• 20 = 20 mm  
• 25 = 25 mm  
• 30 = 30 mm  
Shaft Style \_\_\_\_\_  
• F = Flat Type Insulated Shaft  
• S = Insulated Knurled (18 Teeth)  
• U = Insulated Knurled (40 Teeth)  
Resistance Taper \_\_\_\_\_  
• A = Audio Taper  
• B = Linear Taper  
Resistance Code (See Table) \_\_\_\_\_  
Other styles available.

### Product Dimensions

PTV09A-2 (with shaft style F)



RECOMMENDED PCB LAYOUT



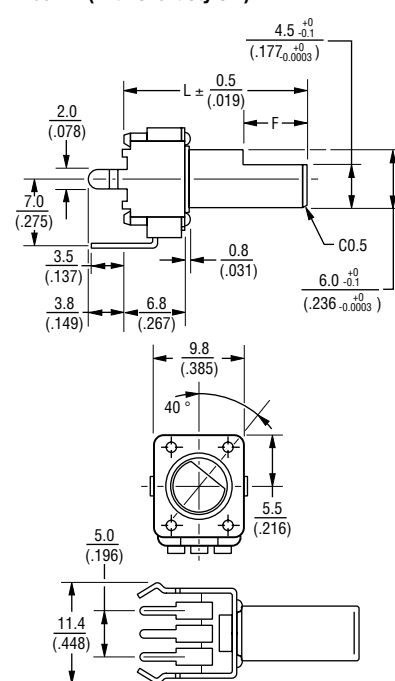
SHAFT SHOWN IN CCW POSITION

### F-Type Shaft

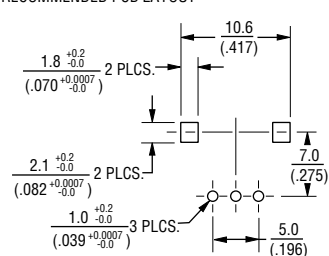
L	15 (.591)	20 (.787)	25 (.984)	30 (1.181)
F	6 (.236)	7 (.275)	12 (.472)	12 (.472)

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

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

## Applications

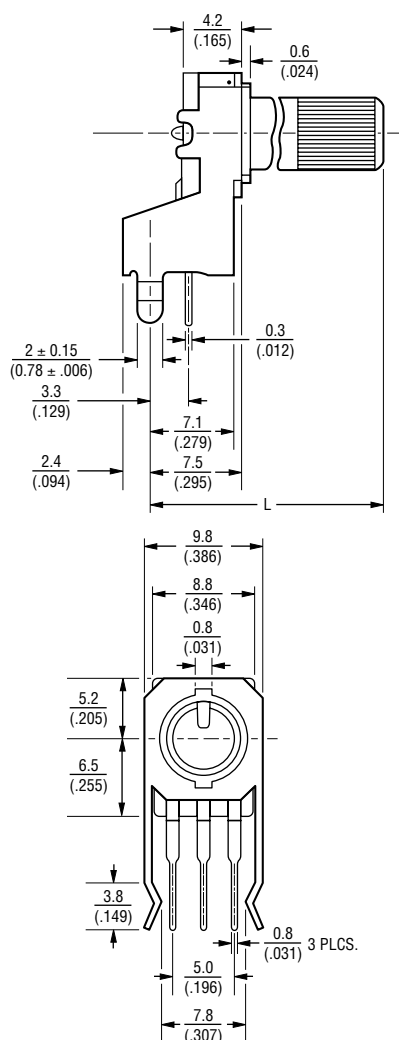
- Audio/TV sets
- Car radio
- Amplifiers/mixers/drum machines/synthesizers
- PCs/monitors
- Appliances

## PTV09 Series - 9 mm Potentiometer

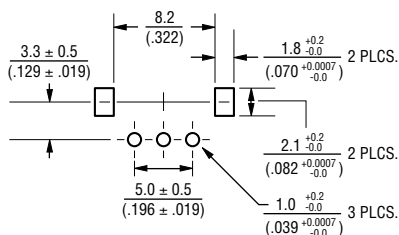
**BOURNS®**

### Product Dimensions

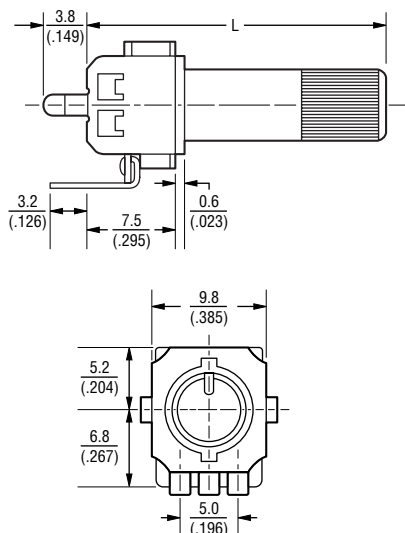
**PTV09A-2**  
(with shaft style U)



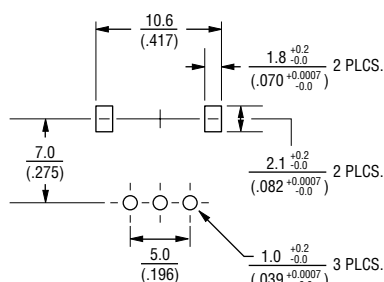
RECOMMENDED PCB LAYOUT



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

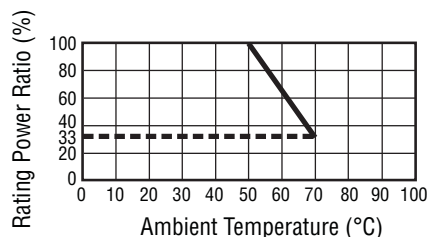


RECOMMENDED PCB LAYOUT



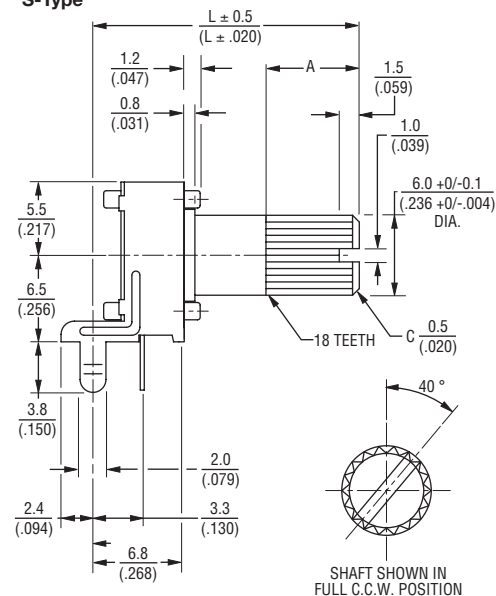
DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

### Derating Curve

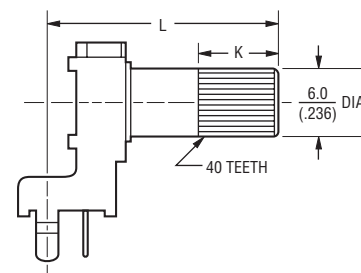


### Shaft Styles

**S-Type**



**U-Type**



### S-Type Shaft

L	15 (.591)	20 (.787)	25 (.984)	30 (1.181)
A	7 (.275)	7 (.275)	7 (.275)	7 (.275)

### U-Type Shaft

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