**Features**
- Carbon element
- Insulated shaft
- Wide variety of mounting styles
- 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………..±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………..(Linear and Audio)………..20 VDC, 50 VAC
- Maximum Operating Voltage………..20 VDC, 50 VAC
- Mechanical Angle………..40 ° ±10 °
- Rotational Torque………..10 to 100 g-cm
- Stop Strength………..2 kg-cm min.
- Detent Torque………..20 to 200 gf-cm
- Rotational Life………..10,000 cycles
- Soldering Condition………..300 °C max. within 3 seconds

**Mechanical Characteristics**
- Mechanical Angle………..280 ° ±10 °
- Rotational Torque………..10 to 100 g-cm
- Detent Torque………..20 to 200 gf-cm
- Stop Strength………..2 kg-cm min.
- Rotational Life………..10,000 cycles
- Soldering Condition………..300 °C max. within 3 seconds
- Hardware………..One flat washer and one hex nut supplied with bushing version
- How To Order

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

Model
- Terminal Configuration
(Pin Layout)
1 = Horizontal/Rear Mount
w/Sleeve Bushing
2 = Vertical/Side Mount,
Bushingless, 10 mm Height
3 = Vertical/Side Mount,
Bushingless, 6.5 mm Height
4 = Horizontal/Rear Mount,
Bushingless, 6.5 mm Height
5 = Horizontal/Rear Mount
w/Metal Threaded
Bushings
6 = Horizontal/Rear Mount
w/Plastic Plain Bushing
7 = Vertical/Side Mount
w/Sleeve Bushing, 6.5 mm Height
8 = Vertical/Side Mount
w/Sleeve Bushing, 10 mm Height

**Schematic**

**WARNING Cancer and Reproductive Harm**
www.P65Warnings.ca.gov

**Applications**

- Commercial communications equipment
- Portable electronics
- Amplifiers/mixers/drum machines/synthesizers
- Consumer goods
- Commercial appliances

**PTV09 Series - 9 mm Potentiometer**

**Product Dimensions (Continued)**

<table>
<thead>
<tr>
<th>PTV09A-3</th>
<th>PTV09A-4</th>
<th>PTV09A-5</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Vertical/Side Mount, Bushingless, 6.5 mm Height)</td>
<td>(Horizontal/Rear Mount, Bushingless)</td>
<td>(Horizontal/Rear Mount w/Plastic Plain Bushing)</td>
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**Shaft Styles**

**F-Type**

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<th>DIA.</th>
<th>SHAFT SHOWN IN CENTER POSITION</th>
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<td>7.0</td>
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**S-Type**

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**U-Type**

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Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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### PTV09 Series - 9 mm Potentiometer

#### Product Dimensions (Continued)

<table>
<thead>
<tr>
<th>PTV09A-6</th>
<th>PTV09A-7</th>
<th>PTV09A-8</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(Horizontal/Rear Mount w/Metal Threaded Bushing)</strong></td>
<td><strong>(Vertical/Side Mount w/Sleeve Bushing, 6.5 mm Height)</strong></td>
<td><strong>(Vertical/Side Mount w/Sleeve Bushing, 10 mm Height)</strong></td>
</tr>
<tr>
<td>SHAFT SHOWN IN CENTER POSITION</td>
<td>FULL CCW POSITION</td>
<td>FULL CCW POSITION</td>
</tr>
<tr>
<td>DIMENSIONS:</td>
<td>DIMENSIONS:</td>
<td>DIMENSIONS:</td>
</tr>
<tr>
<td><strong>MM</strong></td>
<td><strong>INCHES</strong></td>
<td><strong>MM</strong></td>
</tr>
<tr>
<td>M9 X 0.75</td>
<td>0.030</td>
<td>M9 X 0.75</td>
</tr>
<tr>
<td>2.0 ± 0.25</td>
<td>0.079 ± 0.010</td>
<td>2.0 ± 0.25</td>
</tr>
<tr>
<td>8.4 (3.55)</td>
<td>5.0 (1.97)</td>
<td>6.8 (2.68)</td>
</tr>
<tr>
<td>3.5 ± 0.3</td>
<td>1.38 ± 0.012</td>
<td>5.0 (1.97)</td>
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<tr>
<td>6.9</td>
<td>0.272</td>
<td>2.4 (0.94)</td>
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<tr>
<td>2.0 ± 0.15</td>
<td>0.079 ± 0.006</td>
<td>2.0 (0.79)</td>
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<tr>
<td>8.0 ± 0.3</td>
<td>3.15 ± 0.012</td>
<td>2.4 (0.94)</td>
</tr>
<tr>
<td>7.0 ± 0.3</td>
<td>0.272</td>
<td>3.3 (1.30)</td>
</tr>
<tr>
<td>9.7 (0.382)</td>
<td>40° ± 10°</td>
<td>3 PLCS.</td>
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<tr>
<td>FULL CCW POSITION</td>
<td>0.8 (0.031)</td>
<td>7.4 (0.291)</td>
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<tr>
<td>1.2 ± 0.2</td>
<td>0.047 ± 0.008</td>
<td>5.0 (1.97)</td>
</tr>
<tr>
<td>0.8 ± 0.1</td>
<td>0.031 ± 0.004</td>
<td>2.4 (0.94)</td>
</tr>
<tr>
<td>1.5 (0.059)</td>
<td>0.059</td>
<td></td>
</tr>
<tr>
<td>11.4 ± 0.5</td>
<td>0.055 ± 0.020</td>
<td></td>
</tr>
<tr>
<td>10.0 (0.394)</td>
<td>11.0 ± 0.5</td>
<td>0.433 ± 0.020</td>
</tr>
<tr>
<td>5.5 (0.217)</td>
<td>6.5 (0.256)</td>
<td></td>
</tr>
<tr>
<td>5.0 (1.97)</td>
<td>6.5 (0.256)</td>
<td>5.0 (1.97)</td>
</tr>
<tr>
<td>0.4 ± 0.1</td>
<td>0.016</td>
<td></td>
</tr>
</tbody>
</table>

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Derating Curve

![Derating Curve Graph]

Tapers

![A Series Tapers Graph]

![B Series Tapers Graph]

![C Series Tapers Graph]

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