6534 - 7/8˝ (22 mm) Precision Potentiometer

**Features**
- Servo mount
- Shaft support by front and rear precision ball bearings
- Non-standard features and specifications available
- Gangeable up to 10 cups

### Electrical Characteristics

- **Standard Resistance Range**: 1 K to 100 K ohms
- **Total Resistance Tolerance**: ±10 %
- **Independent Linearity**: ±0.5 %
- **Effective Electrical Angle**: 320 ° ±3 °
- **End Voltage**: 0.1 % maximum (0.25 at 2 K ohms, 0.4 % at 1 K ohm)
- **Output Smoothness**: 0.1 %
- **Dielectric Withstanding Voltage (MIL-STD-202, Method 301)**: 750 VAC minimum
- **Power Rating (Voltage Limited By Power Dissipation or 350 VAC, Whichever is Less)**:
  - +70 °C: 1 watt
  - +125 °C: 0 watt
- **Insulation Resistance (500 VDC)**: 1,000 megohms minimum
- **Resolution**: Essentially infinite

### Environmental Characteristics

- **Operating Temperature Range**: -40 °C to +125 °C
- **Storage Temperature Range**: -65 °C to +125 °C
- **Temperature Coefficient Over Storage Temperature Range**: ±500 ppm/°C maximum
- **Vibration**: ±15 G
- **Wiper Bounce**: 0.1 millisecond maximum
- **Total Resistance Shift**: ±2 % maximum
- **Rotational Life (No Load)**: 25,000,000 shaft revolutions
- **Total Resistance Shift**: ±10 % maximum
- **IP Rating**: IP 40

### Mechanical Characteristics

- **Mechanical Angle**: Continuous
- **Torque (Starting & Running)**: 0.18 N-cm (0.25 oz.-in.) maximum
- **Shaft Runout**: 0.025 mm (0.001 in.) T.I.R.
- **Lateral Runout**: 0.05 mm (0.002 in.) T.I.R.
- **Shaft Radial Play**: 0.08 mm (0.003 in.) T.I.R.
- **Shaft End Play**: 0.08 mm (0.003 in.) T.I.R.
- **Pilot Diameter Runout**: 0.025 mm (0.001 in.) T.I.R.
- **Backlash**: 0.1 ° maximum
- **Weight**: 18 grams
- **Soldering Condition**: Side exit turret style
- **Manual Soldering**: 65.5Sn/3.0Ag/0.5Cu solid wire or no-clean rosin cored wire
- **Wave Soldering**: 65.5Sn/3.0Ag/0.5Cu solder with no-clean flux
- **Wash processes**: Not recommended
- **Marking**: Manufacturer’s name and part number, resistance value and tolerance, linearity tolerance, wiring diagram, and date code.
- **Ganging**: 10 cups maximum

### Recommended Part Numbers

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Resistance (Ω)</th>
</tr>
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<tbody>
<tr>
<td>6534S-1-102</td>
<td>1,000</td>
</tr>
<tr>
<td>6534S-1-202</td>
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<tr>
<td>6534S-1-502</td>
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<td>6534S-1-503</td>
<td>50,000</td>
</tr>
<tr>
<td>6534S-1-104</td>
<td>100,000</td>
</tr>
</tbody>
</table>

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1. At room ambient: ±25 °C nominal and 50 % relative humidity nominal, except as noted.

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