

Features

- Carbon element
- Standard surface mount profile compatibility
- Assorted resistances and tapers
- Flatted and knurled shaft styles
- Wide operating temperature range
- RoHS compliant*



PRS11S - 11 mm SMD Potentiometer

Electrical Characteristics

Standard Resistance Range.....	1K ohms to 1 megohm
Standard Resistance Tolerance	
R < 250K ohms	±20 %
R ≥ 250K ohms	±30 %
End Resistance	
R < 50K ohms	30 ohms max.
R ≥ 50K ohms	0.1 % of TR max.
Insulation Resistance @ 250 VDC	100 megohms min.
Dielectric Withstanding Voltage	300 VAC
Standard Taper	Linear, audio
Power Rating	
Linear	0.05 watts
Audio	0.025 watts
Slider Noise	100 mV max.
Max. Operating Voltage	50 VAC / 30 VDC

Environmental Characteristics

Rotational Life.....	15,000 cycles
TR Shift.....	±15 %
Operating Temperature Range	-10 °C to +70 °C
Storage Temperature.....	-40 °C to +85 °C
IP Rating.....	IP 40

Mechanical Characteristics

Mechanical Angle	300 ° +10 °, -5 °
Running Torque	20 to 150 gf-cm
Stop Strength.....	5.1 kgf-cm min.
Shaft Push/Pull Strength	10.2 kgf max.
Weight	5 gm (0.17 oz.) max.
Terminals	Printed circuit board surface mount
Soldering Condition	
Reflow Soldering.....	Sn 95.5 / Ag 2.8 / Cu 0.7 solder with no clean flux (see solder profiles for recommended time and temperature)
Manual Soldering.....	Not recommended
Hardware	No hardware supplied with this potentiometer
Packaging.....	40 pcs./tube

How To Order

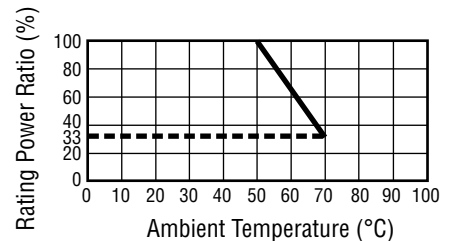
PRS11S - N 20 K - 103 B1

Model Number	_____
Designator	_____
PRS11S = 11 mm SMD Potentiometer	
Switch Option	_____
N = No switch	
Shaft Length (FMS)	_____
20 = 20 mm	
Shaft Style	_____
F = Flatted Metal	
K = Knurled Metal (18 tooth)	
Resistance Code	_____
(See Standard Resistance Table)	
Resistance Taper (See Taper Charts)	_____
Taper Series followed by Curve Number	

Standard Resistance Table

Resistance (Ohms)	Resistance Code
1,000	102
5,000	502
10,000	103
25,000	253
50,000	503
100,000	104
250,000	254
300,000	304
500,000	504
1,000,000	105

Derating Curve



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

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

Specifications are subject to change without notice.

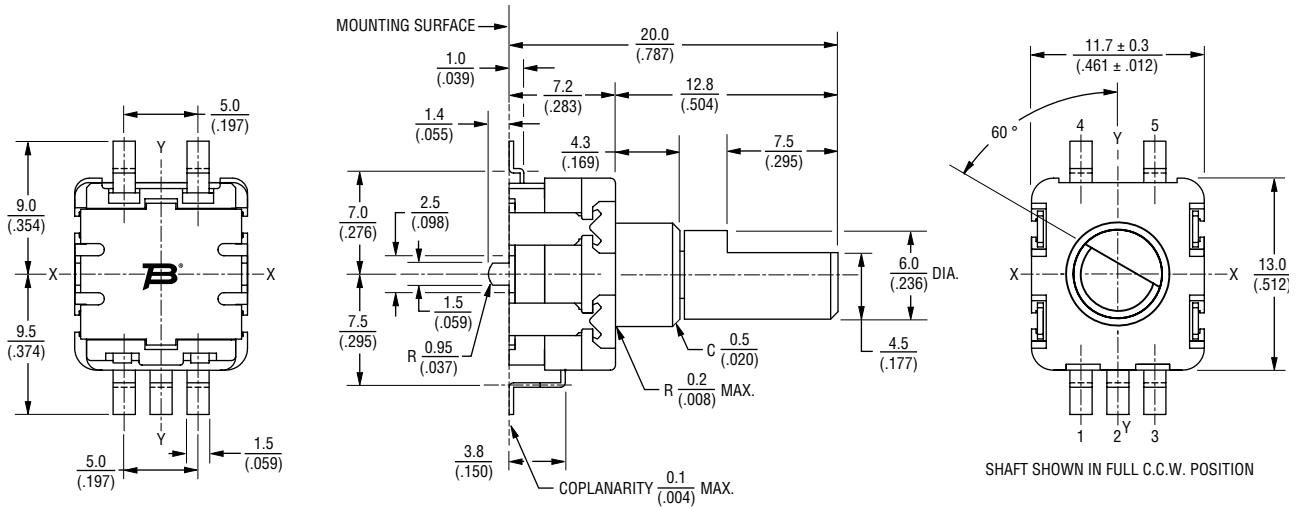
Users should verify actual device performance in their specific applications.

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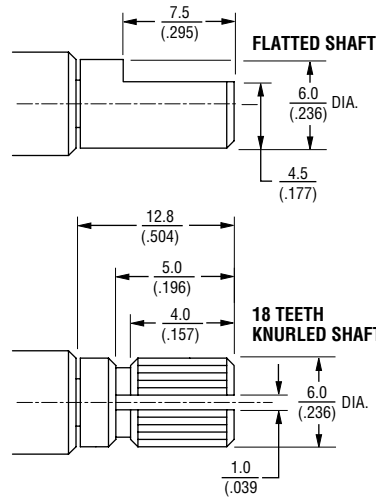
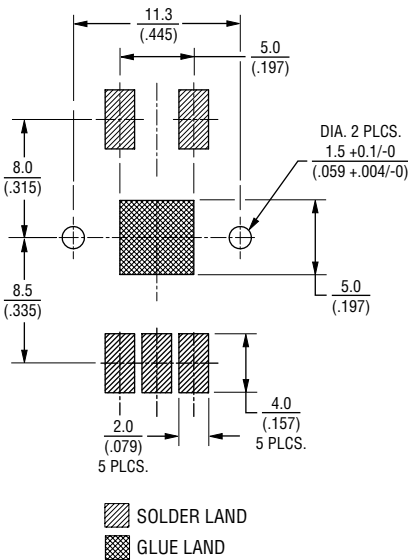
PRS11S - 11 mm SMD Potentiometer

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Product Dimensions



Recommended Land Pattern

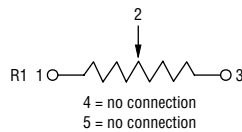


NOTES:

- Layout tolerances: ± 0.1 mm / (.004 in.).
- Recommended PCB thickness: 1.6 mm / (.063 in.).

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

Schematic



Tolerances

DIMENSION	TOLERANCE
< 10.0 ($< .394$)	± 0.3 ($\pm .012$)
$10.0 \sim 100$ ($.394 \sim 3.937$)	± 0.5 ($\pm .020$)

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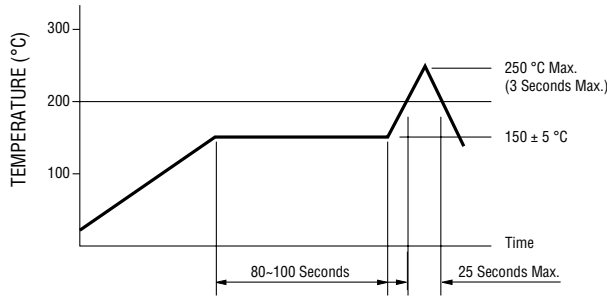
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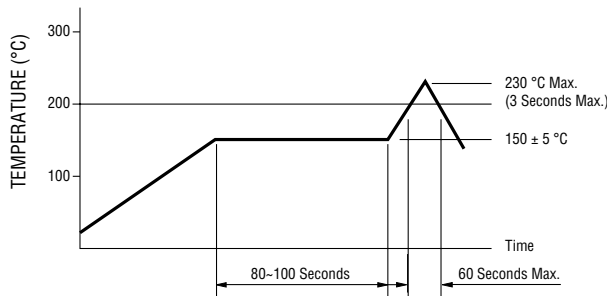
PRS11S - 11 mm SMD Potentiometer



Solder Profiles



Processing Method: Reflow soldering with **infrared heat** (only once).



Processing Method: Reflow soldering with **hot air** (only once).

Notes:

1. No clean solder paste is recommended.
2. Aqueous wash is not recommended.
3. Use of water soluble soldering flux shall be avoided due to possible corrosion.
4. Multiple passes through the soldering process is not recommended.



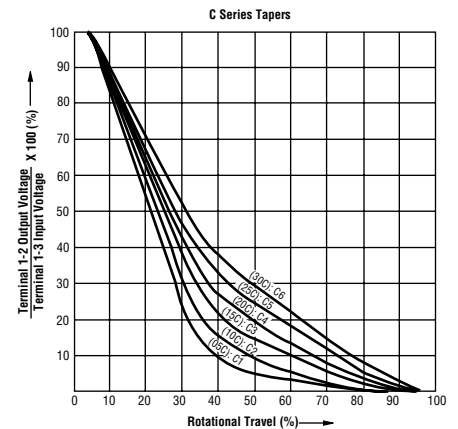
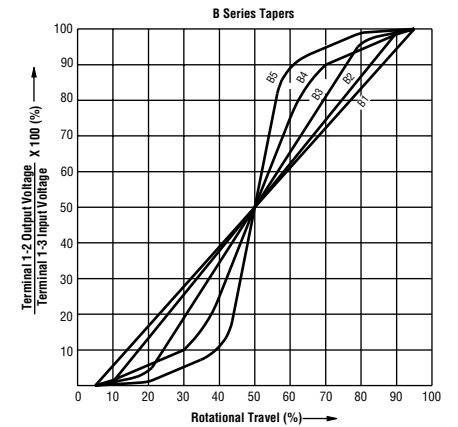
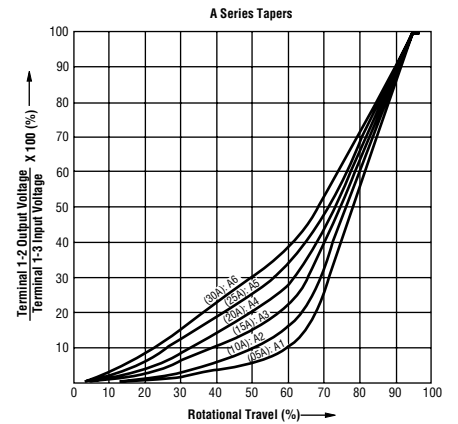
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Taper Charts



REV. 08/19

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