

Series 392 Potentiometer

1/2" (12.7mm) Diameter

.5 Watt Power Rating



Description:

Our Series 392J and 392CX...AP are economical potentiometers designed to meet wave soldering applications for mounting to PC boards. They meet flow solderability and washability test requirements, and MIL-R-94 standards apply where appropriate.

Series 392M incorporates all the washable characteristics of the Series 392. Military version Series 392 is QPL listed under MIL-R-94 Style RV6. Listing of available types on page 4

For more information about this product, visit our website at: www.potentiometers.com

Electrical Specifications

<i>Resistance Range</i>	392J Series: 100 ohms – 5 Megohms 392CX/RV6...AP: 100 ohms – 1Megohm
<i>Resistance Tolerance</i>	Less than 1Meg: ±10% 1Meg to 5Meg: ±20%
<i>Power Rating (Watts)</i>	0.5 watt maximum continuous power rating but voltage not to exceed rating. Full rating at 70°C, derated linearly to zero watts at 120°C
<i>Electrical Rotation</i>	295° ± 5°
<i>Effective Rotation</i>	265°, +0°/-10
<i>Taper</i>	Linear Taper only
<i>Taper Tolerance</i>	±20% of nominal resistance at 50% ±3% mechanical rotation
<i>End Resistance</i>	4 ohms max.
<i>Dielectric Withstanding Voltage</i>	750 Vac for 60 seconds @ ATM pressure; 350 Vac for 60 seconds @ 3.4 in Hg
<i>Working Voltage</i>	350 Vdc across end terminals (power not to exceed rating)
<i>Dynamic Noise</i>	Max. initial noise level 1.5% of total resistance. 1% available. Measured with constant current source.
<i>Linearity</i>	±5% independent linearity measured over 1% to 99%
<i>Voltage Coefficient</i>	.008%/Volt, maximum

Features:

- *Low Cost, small size*
- *Washable and wave solderable*
- *Shaft Seal Standard*
- *Standard or Locking Bushing*
- *IP Rated (IP67)*
- *392CX QPL listed to MIL-R-94 Style RV6*

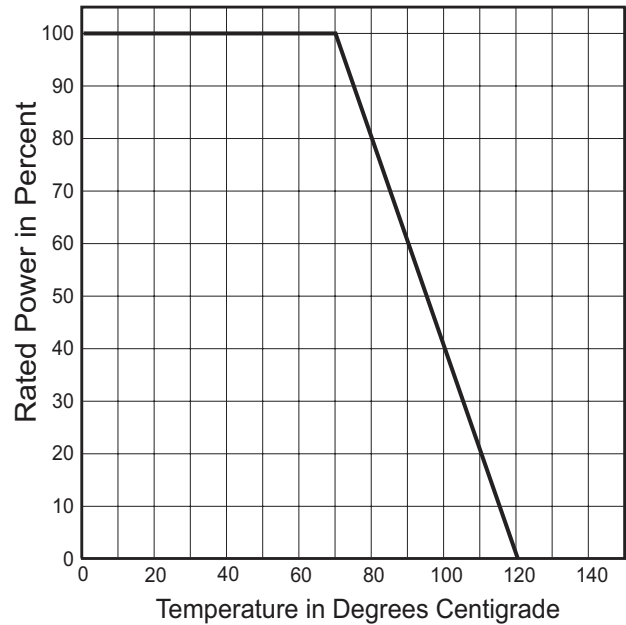
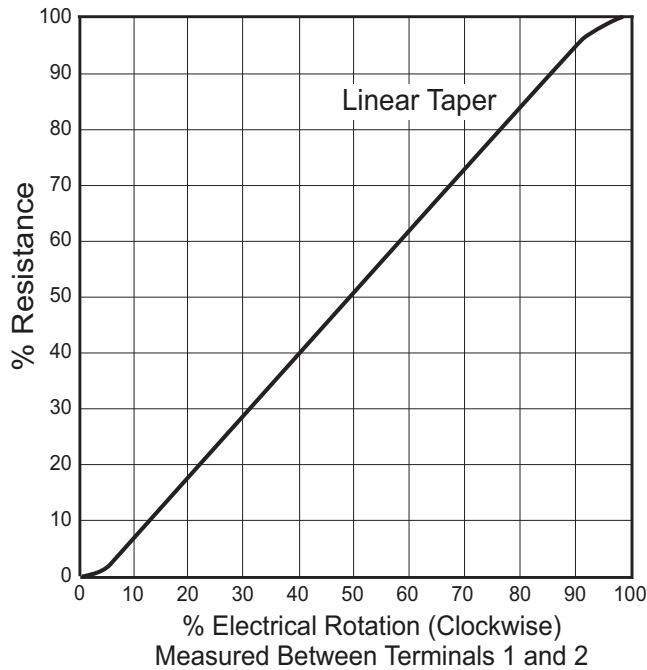
Mechanical Specifications

<i>Mechanical Rotation</i>	295° ± 5°
<i>Stop Torque</i>	3 lb-in min (metal shaft) 2 lb-in min (plastic shaft)
<i>Torque Range</i>	.20 to 2.0 oz-in. Other torques available.
<i>Bushing Lengths</i>	Metal: .25 in. (6.25mm) Standard .5 in. (12.7mm) Locking Plastic: .25 in. (6.25mm) Standard
<i>Shaft Diameter</i>	.125 in. (3.18mm) Slot is in line with contact.
<i>Switch</i>	None available
<i>Seal</i>	IP67. O-ring shaft seal standard all styles, and the complete unit is sealed for wave solder and wash processing. Shaft seal withstands 5 PSI pressure. Mounting seals are available.
<i>Housing</i>	Thermoplastic polyester, blue (UL, SE-O rating)
<i>Hardware</i>	Mounting hardware available. Hex mounted nut 1/4 in. (6.35mm) x 32 thread, 5/16 in. (7.94mm) across flats 1/16 in. (1.59mm) thick. Internal tooth lockwasher, .406 in. (10.32mm) outside diameter x .025 in. (.64mm) thick. Hex jam nut 5/16 in. (7.94mm) across flats 5/32 in. (3.97mm) thick.
<i>Contact Material</i>	Monel
<i>Solvent Resistance</i>	Housing resistant to trichlorethylene, Chloroethene NU (TM Dow Chemical Co.), Freon TMS (TM DuPont), Freon TMC, carbon tetrachloride, toluene, MEK, ethyl acetate and gasoline. For solvents not listed, contact State.
<i>Terminals</i>	Solder-coated. P.C. pin or solder hook style. PC pins fit .100 in (2.54mm) grid spacing and .034 in. (0.86mm) diameter board holes. Pin diameter: .028 in. (0.71mm)
<i>Weight (Approx.)</i>	Metal shaft & bushing: .25 oz.; Plastic shaft & bushing: .1 oz.

Operational Specifications

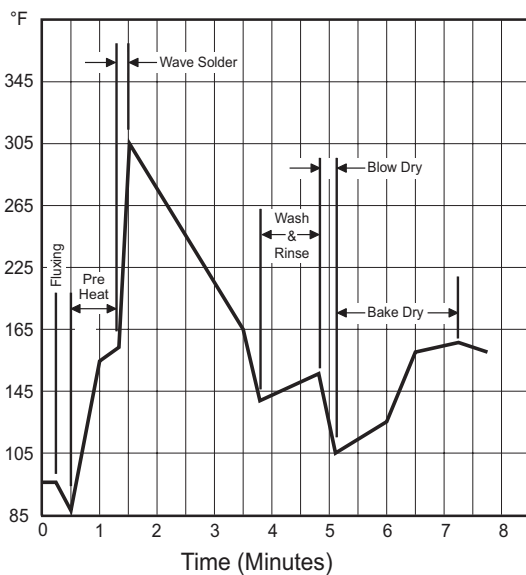
Operating Temperature Range -40°C to +120°C.; **Storage Temperature Range** -55°C to +125°C.

Rotational Life Rotational Life for linear control: 50,000 cycles, plain bushing style only. Change not to exceed 10% R (standard)



Linear taper is standard – the change in resistance value is directly proportional to the degree of rotation. This can be used either as right-hand or left-hand taper.

Nominal Resistance	Maximum Percent Temporary Resistance from 25°C						
	-55°C	-40°C	0°C	+25°C	+55°C	+85°C	+120°C
100 Ohms	±5.0	±4.0	±1.5	0	±1.5	±2.0	±3.5
10K Ohms	+7.0	+5.5	+2.0	0	±1.5	±2.5	±5.5
100K Ohms	+8.0	+6.0	+2.5	0	±2.0	±3.5	±6.0
1 Megohms	+10.0	+8.0	+3.0	0	±2.5	±4.0	±7.5

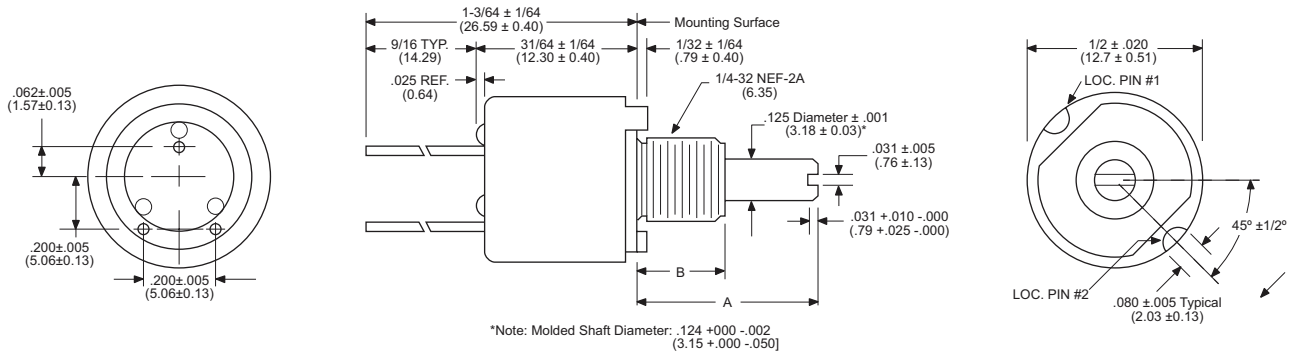


Wave Solder and Board Wash Parameters Recommended Profile, Temperature on P. C. Board

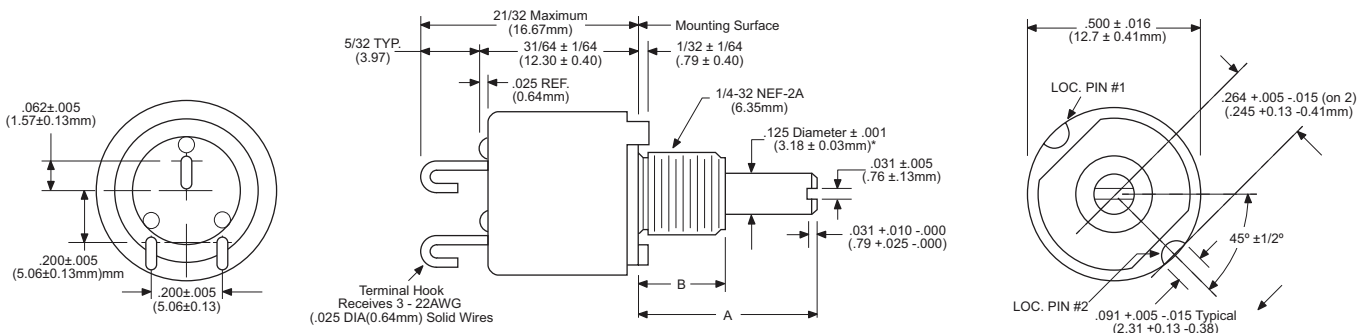
Process Limits	Temperature	Time
Preheat Maximum	195°F	1 minute
Solder Temperature Maximum	550°F	
Maximum differential temperature after solder in wash (3/4T)	72°F	
Wash Temperature	150-160°F	1 1/2 minutes
Dry Temperature	160-220°F	2 minutes

Potentiometer Dimensions

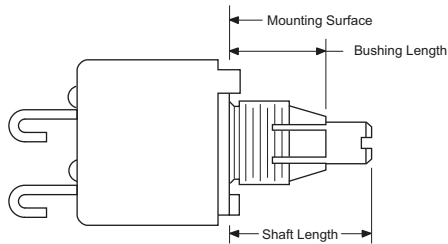
392JA / 392JB Series (PC leads only)



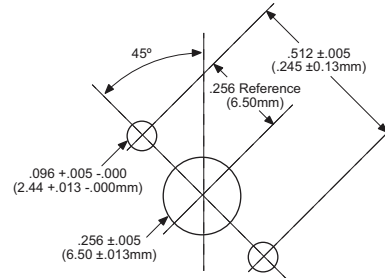
392CX / RV6....AP



Split Locking Bushing



Panel Mounting Layout



Commercial Models:

392JA = 7/8" long (FMS) metal shaft
1/4" dia. x 1/4" long metal bushing
PC Terminals

392JB = 7/8" long (FMS) plastic shaft
1/4" dia. x 1/4" long plastic bushing
PC Terminals

Military Spec Models:

392C2 = RV6LAYS...AP 5/8" long (FMS) metal shaft
1/4" dia. x 1/2" length locking bushing,
solder-hook terminals

392C3 = V6NAYS...AP 7/8" long (FMS) metal shaft
1/4" dia. x 1/4" length bushing,
solder-hook terminals

392C4 = RV6NAYSL...AP 1/2" long (FMS) metal shaft
1/4" dia. x 1/4" length bushing,
solder-hook terminals

392C5 = V6LAYS...AP 7/8" long (FMS) metal shaft
1/4" dia. x 1/2" length locking bushing,
solder-hook terminals

Series 392 Stock Values (Ohms)

JA - 7/8" Long (FMS) metal shaft, 1/4" bushing

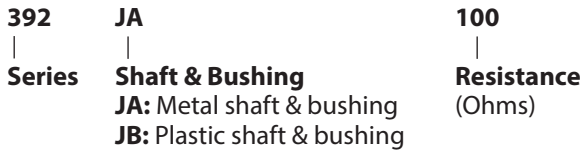
100 ohm	392JA100
250 ohm	392JA250
500 ohm	392JA500
1k ohm	392JA1K
2500 ohm	392JA2500
5k ohm	392JA5K
10k ohm	392JA10K
25k ohm	392JA25K
50k ohm	392JA50K
100k ohm	392JA100K
250k ohm	392JA250K
500k ohm	392JA500K
1m ohm	392JA1MEG
2,5m ohm	392JA2.5MEG
5m ohm	392JA5MEG

JB - 7/8" Long (FMS) Plastic shaft, 1/4" bushing

100 ohm	392JB100
250 ohm	392JB250
500 ohm	392JB500
1k ohm	392JB1K
2500 ohm	392JB2500
5k ohm	392JB5K
10k ohm	392JB10K
25k ohm	392JB25K
50k ohm	392JB50K
100k ohm	392JB100K
250k ohm	392JB250K
500k ohm	392JB500K
1m ohm	392JB1MEG

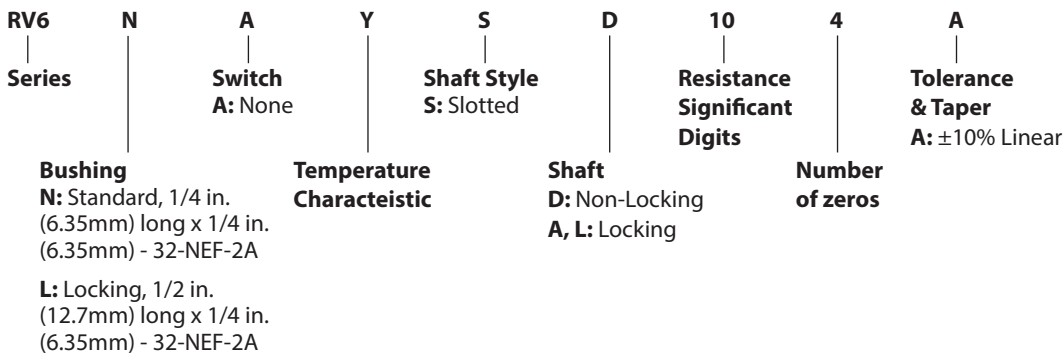
Series 392 - How to Order

Example: **392-JA-100**



Series RV6 - How to Order

Example: **RV6-N-A-Y-S-D-104-A-P**



Note: Only the numbers shown here are currently available

For more information about this product, visit our website at: www.potentiometers.com

Series 392CX / RV6....AP Stock Values (Ohms)

392C2 Series - 5/8" (FMS) Shaft Length, 1/2" Locking Bushing

100 ohm	RV6LAYS101A
250 ohm	RV6LAYS251A
500 ohm	RV6LAYS501A
1k ohm	RV6LAYS102A
2500 ohm	RV6LAYS252A
5k ohm	RV6LAYS502A
10k ohm	RV6LAYS103A
25k ohm	RV6LAYS253A
50k ohm	RV6LAYS503A
100k ohm	RV6LAYS104A
250k ohm	RV6LAYS254A
500k ohm	RV6LAYS504A
1m ohm	RV6LAYS105A

392C3 Series - 7/8" (FMS) Shaft Length, 1/4" Std. Bushing

100 ohm	RV6NAYS101A
250 ohm	RV6NAYS251A
500 ohm	RV6NAYS501A
1k ohm	RV6NAYS102A
2500 ohm	RV6NAYS252A
5k ohm	RV6NAYS502A
10k ohm	RV6NAYS103A
25k ohm	RV6NAYS253A
50k ohm	RV6NAYS503A
100k ohm	RV6NAYS104A
250k ohm	RV6NAYS254A
500k ohm	RV6NAYS504A
1m ohm	RV6NAYS105A

392C4 Series - 1/2" (FMS) Shaft Length, 1/4" Std. Bushing

10k ohm	RV6NAYSL103A
100k ohm	RV6NAYSL104A
500k ohm	RV6NAYSL504A

392C5 Series - 7/8" (FMS) Shaft Length 1/2" Locking Bushing

100 ohm	RV6LAYSD101A
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