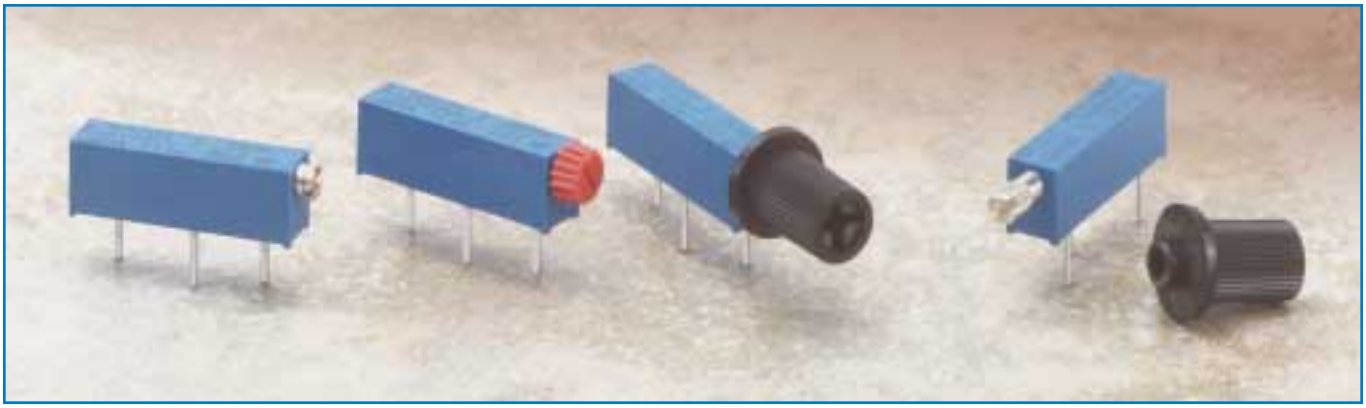
RJC097 Series

TOCOS® POTENTIOMETERS

3/4" Rectilinear, 15-Turn, Through-Hole, Sealed Cermet Trimmers



Features

- 3/4" rectilinear, 15-turn, through-hole, sealed cermet trimmers
- Miniature design for component density
- Side adjust with single-slot standard or extended shaft
- Knob styles available for easier adjustment
- State-of-the-art brush contact design
- Excellent stability and low noise
- PC board solderable pins
- Sealed to withstand wave soldering and immersion cleaning
- Meets UL flammability standards

Specifications

Electrical

Standard Resistance Range . . . . . 10Ω to 1MΩ (standard 1, 2 & 5 sequence)

Resistance Tolerance . . . . . ±10% and ±20%

End Resistance . . . . . 1% or 3Ω, whichever is greater

Resistance Taper . . . . . Linear

Peak Noise (C.R.V.) . . . . . 1% or 1Ω, whichever is greater

Power Rating . . . . . 0.75 watt at +70°C, 0 watt at +125°C

Maximum Input Voltage . . . . . 300VDC or power rating, whichever is smaller

Temperature Coefficient . . . . ±100ppm/°C, 200Ω to 1MΩ ±250ppm/°C, other values

Insulation Resistance . . . . . 1,000MΩ minimum at 500VDC

Dielectric Strength . . . . . 900VAC, 1 minute

Adjustment Travel . . . . . .15±3 turns

Mechanical

Mechanical Travel . . . . . .15±3 turns

Shaft Torque . . . . . 300 gf•cm (4.16 oz•in) max.

Stop Strength . . . . . Clutch action

Flammability of Plastic Materials . . UL 94V-0 for housing; UL 94HB for knob

Nominal Weight . . . . . 1.1g (P); 1.3g (PK) 1.7g (PK1 with knob attached & PK2)

Marking . . . . . .Resistance code, date code, model type, wiring diagram

Environmental

Temperature Range . . . . . −55°C to +125°C

Low Temperature Operation . . . . . −55°C, 0.75 watt, 45 minutes
ΔT/R ≦±3%, S.S. ≦±1%

High Temperature Exposure . . . . . +125°C, 250 hours
ΔT/R ≦±3%, S.S. ≦±1%

Load Life . . . . . +70°C, 0.75 watt, 1,000 hours
ΔT/R ≦±3%, S.S. ≦±3%

Thermal Shock . . . . . −55°C, +125°C, 30 minutes each, 5 cycles
ΔT/R ≦±2%, S.S. ≦±1%

Shock . . . . . 50G, 6ms, 6 directions, 3 times each
ΔT/R ≦±1%, S.S. ≦±1%

Vibration . . . . . 10-2,000Hz, 1.5mm amplitude, 20G, 12 hours
ΔT/R ≦±1%, S.S. ≦±1%

Humidity . . . . . +40°C, 90-95%RH, 0.75 watt, 1,000 hours
ΔT/R ≦±3%, S.S. ≦±1%

Moisture Resistance . . . . . −10°C to +65°C, 80-98%RH, 0.75 watt, 10 cycles, 240 hours
ΔT/R ≦±3%

Soldering Heat Resistance . . . . . 350°C, 3 seconds
ΔT/R ≦±1%

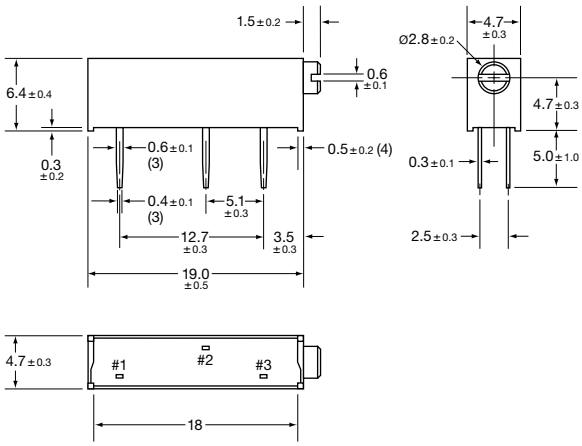
Seal Test . . . . . +85°C, hot water for 1 minute

Rotational Life . . . . . 200 cycles without discontinuity
ΔT/R ≦±3%

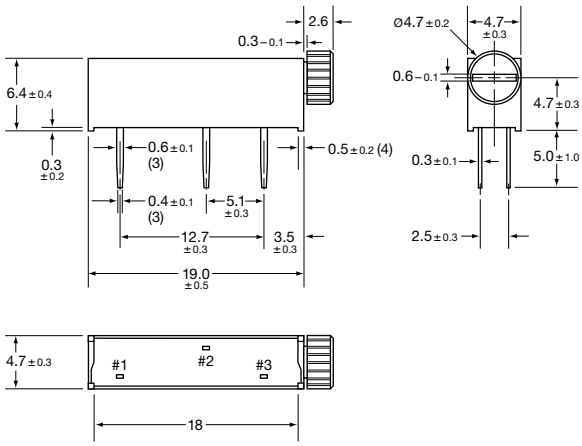
ΔT/R = Total Resistance Change; S.S. = Setting Stability (voltage ratio)

RJC097P
Single-Slot, Short Shaft, Side Adjust

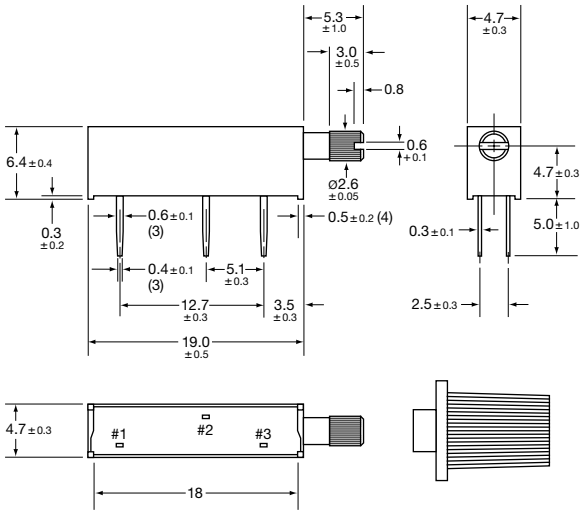
Unit: mm



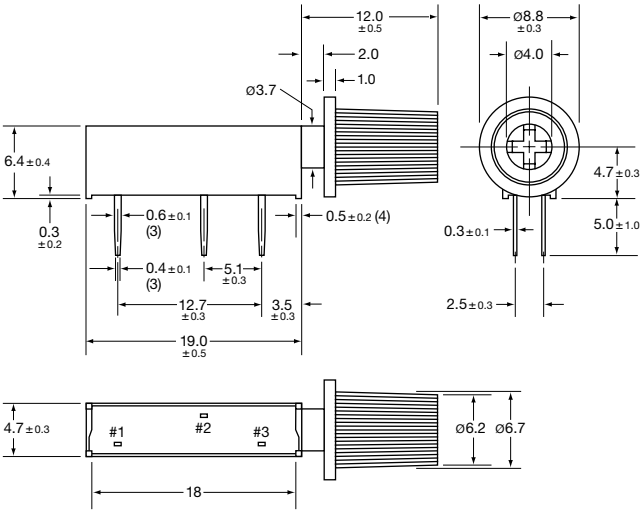
RJC097PK
Short Shaft, Permanent Small Knob, Side Adjust



RJC097PK1
Single-Slot, Extended Shaft, Side Adjust, Removable Large Knob (same knob as PK2)



RJC097PK2
Extended Shaft, Permanent Large Knob, Side Adjust

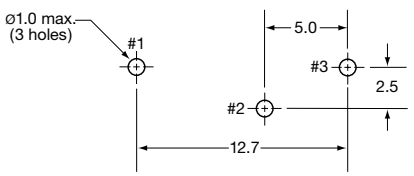


The knob shipped with the PK1 is the same style and size as the PK2 knob. With the knob attached, the dimensions and weight of PK1 are the same as the PK2 model.

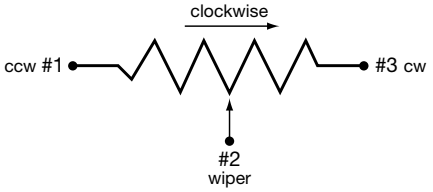
Recommended PCB Layout

P, PK, PK1 & PK2 Pin-Out

Unit: mm



Electrical Schematic



TOCOS AMERICA, INC.
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RJC097 Series Part Numbering System

RJC097 P K1 B 102 K

- K — Resistance Tolerance: K = ±10%; M = ±20%
- 102 — Resistance Code: Expressed in ohms. A three digit code where the first two digits are significant figures, and the third digit indicates the number of zeros that follow these figures (i.e., 100 = 10Ω; 101 = 100Ω; 102 = 1,000Ω; 105 = 1,000,000Ω).
- B — Resistance Taper: B = Linear.
- K1 — Adjustment Knob: K = Permanent Small Knob, Short Shaft. K1 = Removable Large Knob, Extended Shaft, Single-Slot. K2 = Permanent Large Knob, Extended Shaft. Blank = No Knob, Short Shaft, Single-Slot.
- P — Terminal Style: P = 3-Lead Configuration.
- RJC097 — TOCOS Series Name.

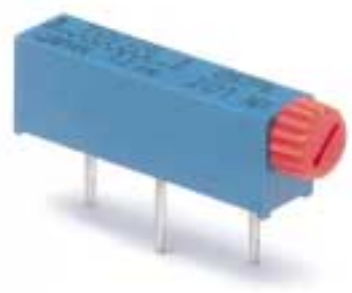
Part Numbers

Nominal Resistance		Catalog No. Bulk		Potentiometer Styles
Value (Ω)	Code	Resistance Tolerance ±10%	Resistance Tolerance ±20%	

RJC097P Through-Hole, P Terminal Style, Single-Slot, Short Shaft, Side Adjust

10	100	RJC097P B 100 K	RJC097P B 100 M	 RJC097P
20	200	RJC097P B 200 K	RJC097P B 200 M	
50	500	RJC097P B 500 K	RJC097P B 500 M	
100	101	RJC097P B 101 K	RJC097P B 101 M	
200	201	RJC097P B 201 K	RJC097P B 201 M	
500	501	RJC097P B 501 K	RJC097P B 501 M	
1,000	102	RJC097P B 102 K	RJC097P B 102 M	
2,000	202	RJC097P B 202 K	RJC097P B 202 M	
5,000	502	RJC097P B 502 K	RJC097P B 502 M	
10,000	103	RJC097P B 103 K	RJC097P B 103 M	
20,000	203	RJC097P B 203 K	RJC097P B 203 M	
50,000	503	RJC097P B 503 K	RJC097P B 503 M	
100,000	104	RJC097P B 104 K	RJC097P B 104 M	
200,000	204	RJC097P B 204 K	RJC097P B 204 M	
500,000	504	RJC097P B 504 K	RJC097P B 504 M	
1,000,000	105	RJC097P B 105 K	RJC097P B 105 M	

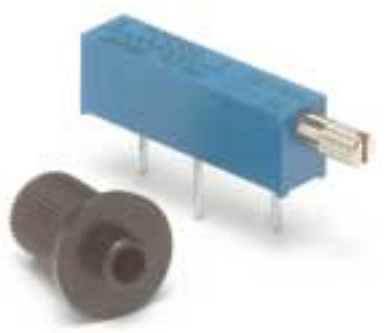
RJC097PK Through-Hole, P Terminal Style, Short Shaft, Permanent Small Knob, Side Adjust

10	100	RJC097PK B 100 K	RJC097PK B 100 M	 RJC097PK
20	200	RJC097PK B 200 K	RJC097PK B 200 M	
50	500	RJC097PK B 500 K	RJC097PK B 500 M	
100	101	RJC097PK B 101 K	RJC097PK B 101 M	
200	201	RJC097PK B 201 K	RJC097PK B 201 M	
500	501	RJC097PK B 501 K	RJC097PK B 501 M	
1,000	102	RJC097PK B 102 K	RJC097PK B 102 M	
2,000	202	RJC097PK B 202 K	RJC097PK B 202 M	
5,000	502	RJC097PK B 502 K	RJC097PK B 502 M	
10,000	103	RJC097PK B 103 K	RJC097PK B 103 M	
20,000	203	RJC097PK B 203 K	RJC097PK B 203 M	
50,000	503	RJC097PK B 503 K	RJC097PK B 503 M	
100,000	104	RJC097PK B 104 K	RJC097PK B 104 M	
200,000	204	RJC097PK B 204 K	RJC097PK B 204 M	
500,000	504	RJC097PK B 504 K	RJC097PK B 504 M	
1,000,000	105	RJC097PK B 105 K	RJC097PK B 105 M	

RJC097 Series Part Numbers

Nominal Resistance		Catalog No. Bulk		Potentiometer Styles
Value (Ω)	Code	Resistance Tolerance ±10%	Resistance Tolerance ±20%	

RJC097PK1 Through-Hole, P Terminal Style, Single-Slot, Extended Shaft, Removable Large Knob, Side Adjust

10	100	RJC097PK1 B 100 K	RJC097PK1 B 100 M	 RJC097PK1
20	200	RJC097PK1 B 200 K	RJC097PK1 B 200 M	
50	500	RJC097PK1 B 500 K	RJC097PK1 B 500 M	
100	101	RJC097PK1 B 101 K	RJC097PK1 B 101 M	
200	201	RJC097PK1 B 201 K	RJC097PK1 B 201 M	
500	501	RJC097PK1 B 501 K	RJC097PK1 B 501 M	
1,000	102	RJC097PK1 B 102 K	RJC097PK1 B 102 M	
2,000	202	RJC097PK1 B 202 K	RJC097PK1 B 202 M	
5,000	502	RJC097PK1 B 502 K	RJC097PK1 B 502 M	
10,000	103	RJC097PK1 B 103 K	RJC097PK1 B 103 M	
20,000	203	RJC097PK1 B 203 K	RJC097PK1 B 203 M	
50,000	503	RJC097PK1 B 503 K	RJC097PK1 B 503 M	
100,000	104	RJC097PK1 B 104 K	RJC097PK1 B 104 M	
200,000	204	RJC097PK1 B 204 K	RJC097PK1 B 204 M	
500,000	504	RJC097PK1 B 504 K	RJC097PK1 B 504 M	
1,000,000	105	RJC097PK1 B 105 K	RJC097PK1 B 105 M	

RJC097PK2 Through-Hole, P Terminal Style, Extended Shaft, Permanent Large Knob, Side Adjust

10	100	RJC097PK2 B 100 K	RJC097PK2 B 100 M	 RJC097PK2
20	200	RJC097PK2 B 200 K	RJC097PK2 B 200 M	
50	500	RJC097PK2 B 500 K	RJC097PK2 B 500 M	
100	101	RJC097PK2 B 101 K	RJC097PK2 B 101 M	
200	201	RJC097PK2 B 201 K	RJC097PK2 B 201 M	
500	501	RJC097PK2 B 501 K	RJC097PK2 B 501 M	
1,000	102	RJC097PK2 B 102 K	RJC097PK2 B 102 M	
2,000	202	RJC097PK2 B 202 K	RJC097PK2 B 202 M	
5,000	502	RJC097PK2 B 502 K	RJC097PK2 B 502 M	
10,000	103	RJC097PK2 B 103 K	RJC097PK2 B 103 M	
20,000	203	RJC097PK2 B 203 K	RJC097PK2 B 203 M	
50,000	503	RJC097PK2 B 503 K	RJC097PK2 B 503 M	
100,000	104	RJC097PK2 B 104 K	RJC097PK2 B 104 M	
200,000	204	RJC097PK2 B 204 K	RJC097PK2 B 204 M	
500,000	504	RJC097PK2 B 504 K	RJC097PK2 B 504 M	
1,000,000	105	RJC097PK2 B 105 K	RJC097PK2 B 105 M	

Packaging

Standard: **Bulk Packaging**

Quantity
P & PK: 20 pieces per vinyl bag.
200 pieces per box.
PK1 & PK2: 10 pieces per vinyl bag.
100 pieces per box.

Soldering and Cleaning Guidelines

For soldering, cleaning and other information, refer to Guidelines and Precautions for Using Potentiometers.

TOCOS AMERICA, INC.
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