

3/4" Rectilinear, 13-Turn, Through-Hole, Sealed Cermet Trimmers



Features

- 3/4" rectilinear, 13-turn, through-hole, sealed cermet trimmers
- Space-saving vertical mount design
- Single-slot top adjustment
- Knob style available for easier adjustment
- High performance, excellent stability
- Wide operating temperature range of -55°C to $+125^{\circ}\text{C}$
- PC board solderable pins
- Sealed to withstand wave soldering and immersion cleaning
- Meets UL flammability standards

Specifications

Electrical

Standard Resistance Range	10 Ω to 1M Ω (standard 1, 2 & 5 sequence)
Resistance Tolerance	$\pm 10\%$ and $\pm 20\%$
End Resistance	1% or 3 Ω , whichever is greater
Resistance Taper	Linear
Peak Noise (C.R.V.)	1% or 1 Ω , whichever is greater for $\leq 10\text{k}\Omega$; 2% max. for $\geq 20\text{k}\Omega$
Power Rating	0.75 watt at $+40^{\circ}\text{C}$, 0 watt at $+125^{\circ}\text{C}$
Maximum Input Voltage	300VDC or power rating, whichever is smaller
Temperature Coefficient	$\pm 100\text{ppm}/^{\circ}\text{C}$, 200 Ω to 500k Ω $\pm 250\text{ppm}/^{\circ}\text{C}$, other values
Insulation Resistance	100M Ω minimum at 500VDC
Dielectric Strength	900VAC, 1 minute
Adjustment Travel	13 \pm 3 turns

Mechanical

Mechanical Travel	13 \pm 3 turns
Shaft Torque	7.2 to 300 gf \cdot cm (0.10 to 4.16 oz \cdot in)
Stop Strength	Clutch action
Flammability of Plastic Materials	UL 94V-0 for housing; UL 94HB for knob
Nominal Weight	1.4g; 1.8g with knob
Marking	Resistance code, date code, model type, wiring diagram

Environmental

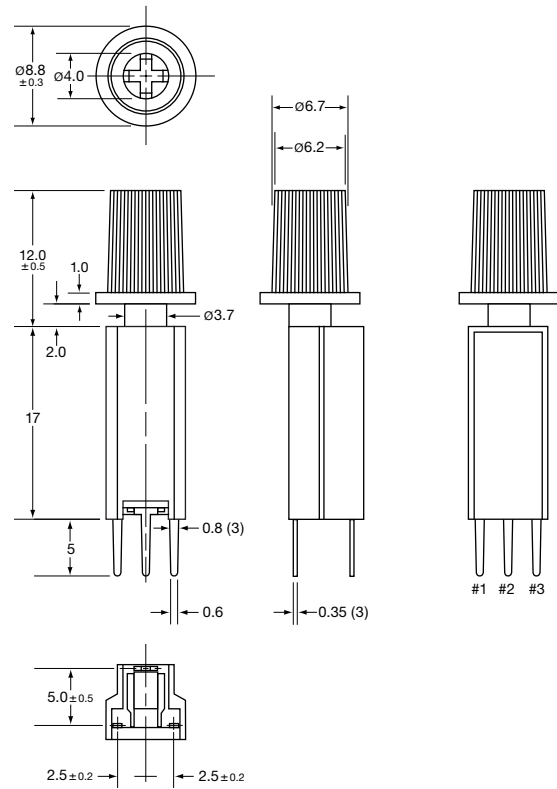
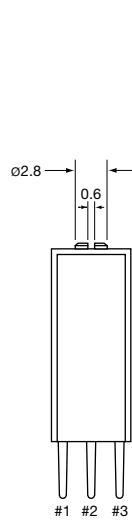
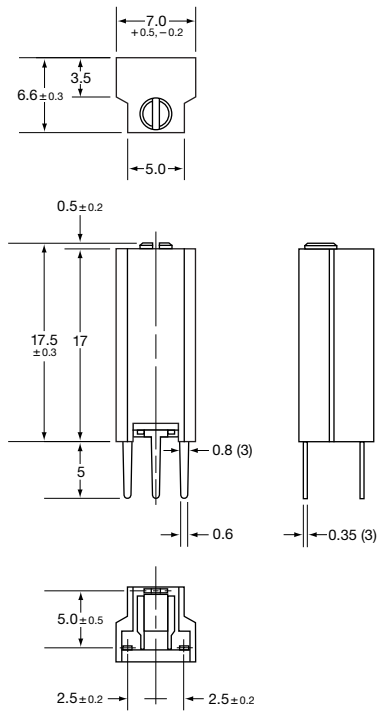
Temperature Range	-55°C to $+125^{\circ}\text{C}$
High Temperature Exposure	$+125^{\circ}\text{C}$, 250 hours $\Delta T/R \leq \pm 3\%$, S.S. $\leq \pm 1\%$
Load Life	$+40^{\circ}\text{C}$, 0.75 watt, 1,000 hours $\Delta T/R \leq \pm 3\%$, S.S. $\leq \pm 2\%$
Thermal Shock	-55°C , $+125^{\circ}\text{C}$, 30 minutes each, 5 cycles $\Delta T/R \leq \pm 2\%$, S.S. $\leq \pm 1\%$
Shock	50G, 6ms, 6 directions, 3 times each $\Delta T/R \leq \pm 1\%$, S.S. $\leq \pm 1\%$
Vibration	10-2,000Hz, 1.5mm amplitude, 20G, 12 hours $\Delta T/R \leq \pm 1\%$, S.S. $\leq \pm 1\%$
Humidity	$+40^{\circ}\text{C}$, 90-95% RH, 0.75 watt, 1,000 hours $\Delta T/R \leq \pm 3\%$, S.S. $\leq \pm 1\%$
Moisture Resistance	-10°C to $+65^{\circ}\text{C}$, 80-98% RH, 0.75 watt, 10 cycles, 240 hours $\Delta T/R \leq \pm 3\%$
Soldering Heat Resistance	350°C , 3 seconds $\Delta T/R \leq \pm 1\%$
Seal Test	$+85^{\circ}\text{C}$, hot water for 1 minute
Rotational Life	200 cycles without discontinuity $\Delta T/R \leq \pm 5\%$

$\Delta T/R$ = Total Resistance Change; S.S. = Setting Stability (voltage ratio)

Unit: mm

RJC07R
Single-Slot, Short Shaft, Top Adjust

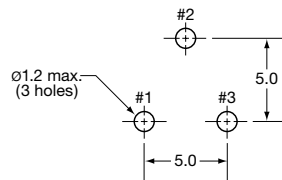
RJC07RK2
Extended Shaft, Permanent Knob, Top Adjust



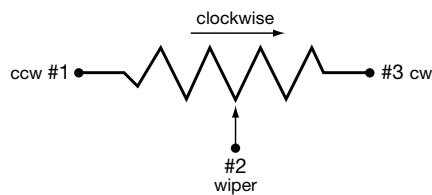
Recommended PCB Layout

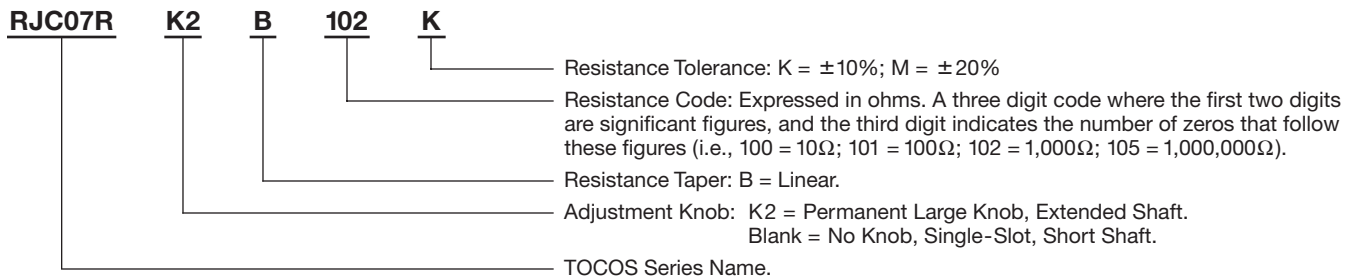
RJC07R & RJC07RK2 Pin-Out

Unit: mm



Electrical Schematic







Part Numbers

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

RJC07R Through-Hole, Single-Slot, Short Shaft, Top Adjust

Value (Ω)	Code	Resistance Tolerance $\pm 10\%$	Resistance Tolerance $\pm 20\%$	 <p>RJC07R</p>
10	100	RJC07R B 100 K	RJC07R B 100 M	
20	200	RJC07R B 200 K	RJC07R B 200 M	
50	500	RJC07R B 500 K	RJC07R B 500 M	
100	101	RJC07R B 101 K	RJC07R B 101 M	
200	201	RJC07R B 201 K	RJC07R B 201 M	
500	501	RJC07R B 501 K	RJC07R B 501 M	
1,000	102	RJC07R B 102 K	RJC07R B 102 M	
2,000	202	RJC07R B 202 K	RJC07R B 202 M	
5,000	502	RJC07R B 502 K	RJC07R B 502 M	
10,000	103	RJC07R B 103 K	RJC07R B 103 M	
20,000	203	RJC07R B 203 K	RJC07R B 203 M	
50,000	503	RJC07R B 503 K	RJC07R B 503 M	
100,000	104	RJC07R B 104 K	RJC07R B 104 M	
200,000	204	RJC07R B 204 K	RJC07R B 204 M	
500,000	504	RJC07R B 504 K	RJC07R B 504 M	
1,000,000	105	RJC07R B 105 K	RJC07R B 105 M	

RJC07RK2 Through-Hole, Extended Shaft, Permanent Knob, Top Adjust

Value (Ω)	Code	Resistance Tolerance $\pm 10\%$	Resistance Tolerance $\pm 20\%$	 <p>RJC07RK2</p>
10	100	RJC07RK2 B 100 K	RJC07RK2 B 100 M	
20	200	RJC07RK2 B 200 K	RJC07RK2 B 200 M	
50	500	RJC07RK2 B 500 K	RJC07RK2 B 500 M	
100	101	RJC07RK2 B 101 K	RJC07RK2 B 101 M	
200	201	RJC07RK2 B 201 K	RJC07RK2 B 201 M	
500	501	RJC07RK2 B 501 K	RJC07RK2 B 501 M	
1,000	102	RJC07RK2 B 102 K	RJC07RK2 B 102 M	
2,000	202	RJC07RK2 B 202 K	RJC07RK2 B 202 M	
5,000	502	RJC07RK2 B 502 K	RJC07RK2 B 502 M	
10,000	103	RJC07RK2 B 103 K	RJC07RK2 B 103 M	
20,000	203	RJC07RK2 B 203 K	RJC07RK2 B 203 M	
50,000	503	RJC07RK2 B 503 K	RJC07RK2 B 503 M	
100,000	104	RJC07RK2 B 104 K	RJC07RK2 B 104 M	
200,000	204	RJC07RK2 B 204 K	RJC07RK2 B 204 M	
500,000	504	RJC07RK2 B 504 K	RJC07RK2 B 504 M	
1,000,000	105	RJC07RK2 B 105 K	RJC07RK2 B 105 M	

Packaging

Standard: Bulk Packaging **Quantity**
 RJC07R: 20 pieces per vinyl bag; 200 pieces per box.
 RJC07RK2: 50 pieces per vinyl bag; 200 pieces per box.

Soldering and Cleaning Guidelines

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