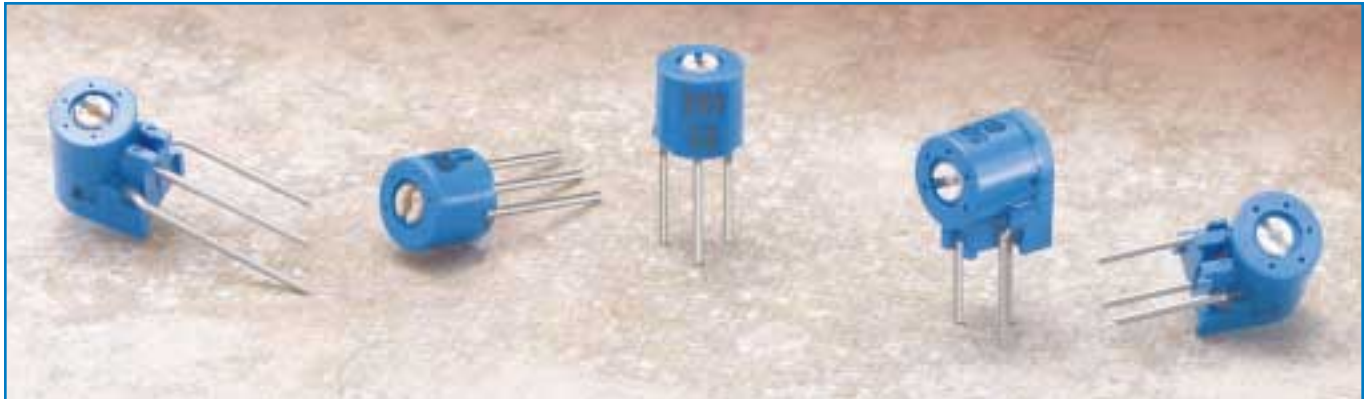


4mm Round, Single-Turn, Through-Hole Sealed Cermet Trimmers



Features

- 4mm round, single-turn, through-hole, sealed cermet trimmers
- Top and side adjust models
- Compact with high 0.5 watt power rating
- High setting stability with precious metal multi-contacts
- Low noise and low temperature coefficient
- Wide temperature range of -55°C to $+125^{\circ}\text{C}$
- Meets UL 94V-0 flammability requirements
- Sealed to withstand wave soldering and immersion cleaning processes

Specifications

Electrical

Standard Resistance Range	100 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.)	2% or 3 Ω , whichever is greater
Power Rating	0.5 watt at $+70^{\circ}\text{C}$, 0 watt at $+125^{\circ}\text{C}$
Maximum Input Voltage	200VDC 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	1,000M Ω minimum at 500VDC
Dielectric Strength	500VAC, 1 minute
Adjustment Travel	190 $^{\circ}$

Mechanical

Mechanical Travel	230 $^{\circ} \pm 10^{\circ}$
Shaft Torque	150 gf \cdot cm (2.08 oz \cdot in) max.
Stop Strength	200 gf \cdot cm (2.77 oz \cdot in) min.
Flammability of Plastic Materials	Meets UL 94V-0
Nominal Weight	0.2g (W, U); 0.3g (S, V)
Marking	Resistance code, date code

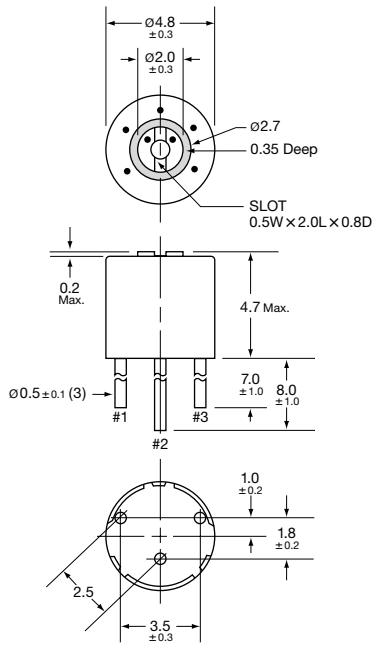
Environmental

Temperature Range	-55°C to $+125^{\circ}\text{C}$
Low Temperature Operation	-55°C , 0.5 watt, 2 hours $\Delta\text{T/R} \leq \pm 3\%$
High Temperature Exposure	$+125^{\circ}\text{C}$, 250 hours $\Delta\text{T/R} \leq \pm 2\%$, S.S. $\leq \pm 1\%$
Load Life	$+70^{\circ}\text{C}$, 0.5 watt, 100 hours $\Delta\text{T/R} \leq \pm 3\%$, S.S. $\leq \pm 2\%$
Thermal Shock	-55°C , $+125^{\circ}\text{C}$, 30 minutes each, 5 cycles $\Delta\text{T/R} \leq \pm 2\%$, S.S. $\leq \pm 2\%$
Shock	100G, 6ms, 6 directions, 3 times each $\Delta\text{T/R} \leq \pm 1\%$, S.S. $\leq \pm 1\%$
Vibration	10-2,000Hz, 1.5mm amplitude, 20G, 12 hours $\Delta\text{T/R} \leq \pm 1\%$, S.S. $\leq \pm 1\%$
Humidity	$+40^{\circ}\text{C}$, 90-95%RH, 0.5 watt, 500 hours $\Delta\text{T/R} \leq \pm 3\%$, S.S. $\leq \pm 1\%$
Moisture Resistance	-10°C to $+65^{\circ}\text{C}$, 80-98%RH, 0.5 watt, 10 cycles, 240 hours $\Delta\text{T/R} \leq \pm 3\%$
Soldering Heat Resistance	350 $^{\circ}\text{C}$, 3 seconds $\Delta\text{T/R} \leq \pm 2\%$
Seal Test	$+85^{\circ}\text{C}$, hot water for 1 minute
Rotational Life	200 cycles without discontinuity $\Delta\text{T/R} \leq \pm 5\%$

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

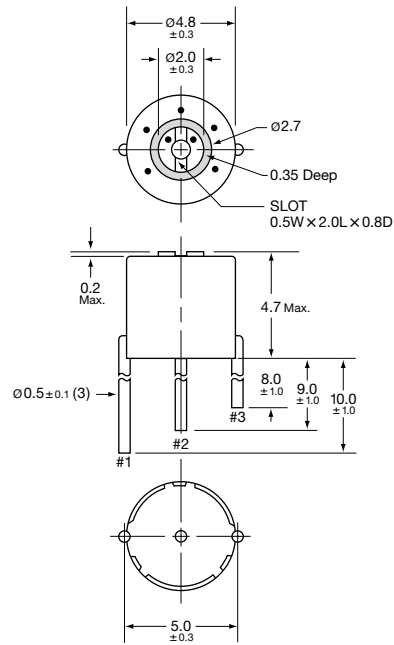
GF04W

W Terminal Style, Single-Slot, Top Adjust



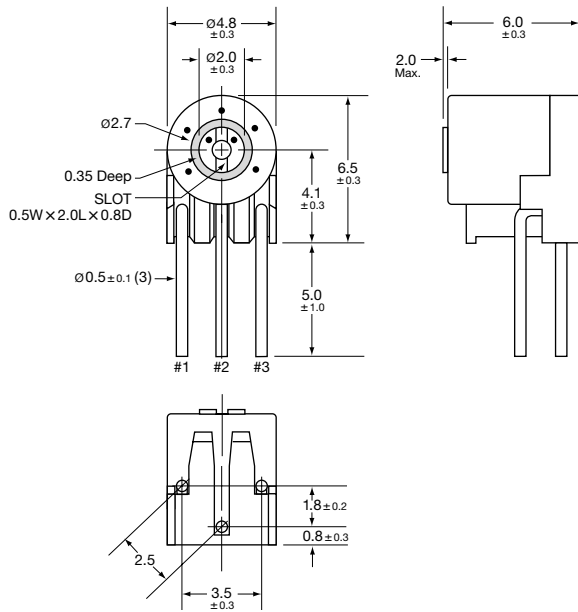
GF04U

U Terminal Style, Single-Slot, Top Adjust



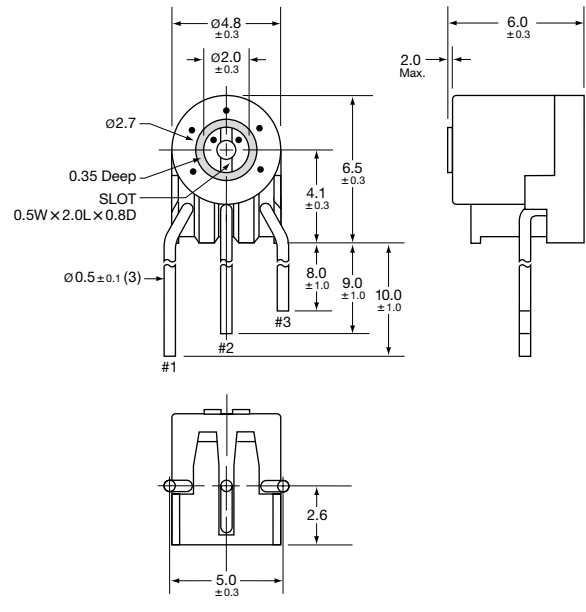
GF04S

S Terminal Style, Single-Slot, Side Adjust



GF04V

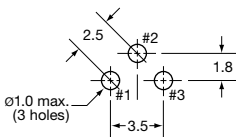
V Terminal Style, Single-Slot, Side Adjust



Recommended PCB Layout

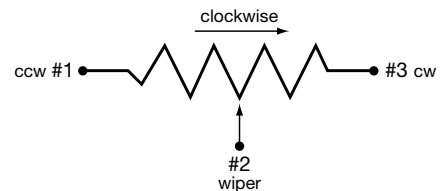
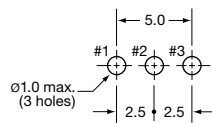
Electrical Schematic

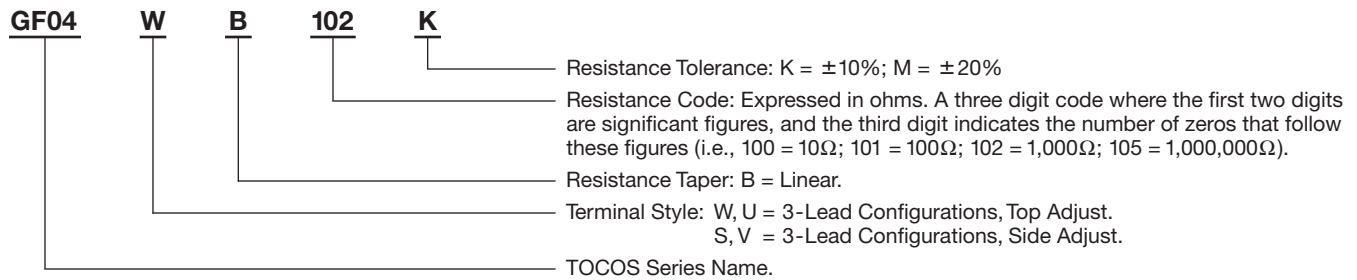
W & S Pin-Out



U & V Pin-Out

Unit: mm







Part Numbers

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


GF04W Through-Hole, W Terminal Style, Single-Slot, Top Adjust

100	101	GF04W B 101 K	GF04W B 101 M	 GF04W
200	201	GF04W B 201 K	GF04W B 201 M	
500	501	GF04W B 501 K	GF04W B 501 M	
1,000	102	GF04W B 102 K	GF04W B 102 M	
2,000	202	GF04W B 202 K	GF04W B 202 M	
5,000	502	GF04W B 502 K	GF04W B 502 M	
10,000	103	GF04W B 103 K	GF04W B 103 M	
20,000	203	GF04W B 203 K	GF04W B 203 M	
50,000	503	GF04W B 503 K	GF04W B 503 M	
100,000	104	GF04W B 104 K	GF04W B 104 M	
200,000	204	GF04W B 204 K	GF04W B 204 M	
500,000	504	GF04W B 504 K	GF04W B 504 M	
1,000,000	105	GF04W B 105 K	GF04W B 105 M	

GF04U Through-Hole, U Terminal Style, Single-Slot, Top Adjust

100	101	GF04U B 101 K	GF04U B 101 M	 GF04U
200	201	GF04U B 201 K	GF04U B 201 M	
500	501	GF04U B 501 K	GF04U B 501 M	
1,000	102	GF04U B 102 K	GF04U B 102 M	
2,000	202	GF04U B 202 K	GF04U B 202 M	
5,000	502	GF04U B 502 K	GF04U B 502 M	
10,000	103	GF04U B 103 K	GF04U B 103 M	
20,000	203	GF04U B 203 K	GF04U B 203 M	
50,000	503	GF04U B 503 K	GF04U B 503 M	
100,000	104	GF04U B 104 K	GF04U B 104 M	
200,000	204	GF04U B 204 K	GF04U B 204 M	
500,000	504	GF04U B 504 K	GF04U B 504 M	
1,000,000	105	GF04U B 105 K	GF04U B 105 M	

GF04S Through-Hole, S Terminal Style, Single-Slot, Side Adjust


100	101	GF04S B 101 K	GF04S B 101 M	 GF04S
200	201	GF04S B 201 K	GF04S B 201 M	
500	501	GF04S B 501 K	GF04S B 501 M	
1,000	102	GF04S B 102 K	GF04S B 102 M	
2,000	202	GF04S B 202 K	GF04S B 202 M	
5,000	502	GF04S B 502 K	GF04S B 502 M	
10,000	103	GF04S B 103 K	GF04S B 103 M	
20,000	203	GF04S B 203 K	GF04S B 203 M	
50,000	503	GF04S B 503 K	GF04S B 503 M	
100,000	104	GF04S B 104 K	GF04S B 104 M	
200,000	204	GF04S B 204 K	GF04S B 204 M	
500,000	504	GF04S B 504 K	GF04S B 504 M	
1,000,000	105	GF04S B 105 K	GF04S B 105 M	

GF04 Series

Part Numbers

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

GF04V Through-Hole, V Terminal Style, Single-Slot, Side Adjust

100	101	GF04V B 101 K	GF04V B 101 M	 <p style="text-align: center;">GF04V</p>
200	201	GF04V B 201 K	GF04V B 201 M	
500	501	GF04V B 501 K	GF04V B 501 M	
1,000	102	GF04V B 102 K	GF04V B 102 M	
2,000	202	GF04V B 202 K	GF04V B 202 M	
5,000	502	GF04V B 502 K	GF04V B 502 M	
10,000	103	GF04V B 103 K	GF04V B 103 M	
20,000	203	GF04V B 203 K	GF04V B 203 M	
50,000	503	GF04V B 503 K	GF04V B 503 M	
100,000	104	GF04V B 104 K	GF04V B 104 M	
200,000	204	GF04V B 204 K	GF04V B 204 M	
500,000	504	GF04V B 504 K	GF04V B 504 M	
1,000,000	105	GF04V B 105 K	GF04V B 105 M	

Packaging

Standard:	Bulk Packaging	Quantity
		50 pieces per vinyl bag. 500 pieces per box.

Soldering and Cleaning Guidelines

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