

1/4" Square, Multi-Turn, Through-Hole Sealed Cermet Trimmers



Features

- 1/4" square, multi-turn, through-hole, sealed cermet trimmers
- Top and side adjust styles available
- 2-turn adjustment travel for quick setting
- Space-saving, low profile design
- Excellent stability and low noise
- 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
- Taping available, reel or ammo packaging

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
Power Rating	0.5 watt at $+70^{\circ}\text{C}$, 0 watt at $+125^{\circ}\text{C}$
Maximum Input Voltage	250VDC or power rating, whichever is smaller
Temperature Coefficient	$\pm 100\text{ppm}/^{\circ}\text{C}$, 200 Ω to 1M Ω $\pm 250\text{ppm}/^{\circ}\text{C}$, other values
Insulation Resistance	100M Ω minimum at 500VDC
Dielectric Strength	500VAC, 1 minute
Adjustment Travel	2 turns ($735^{\circ} \pm 10^{\circ}$)

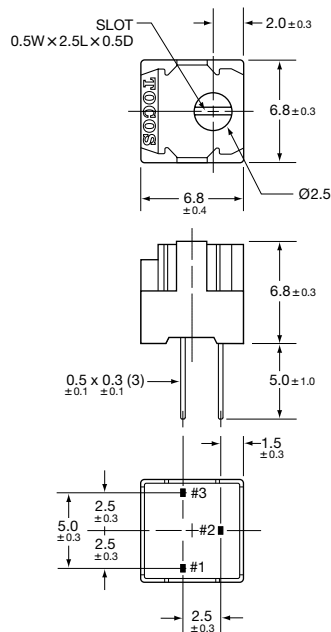
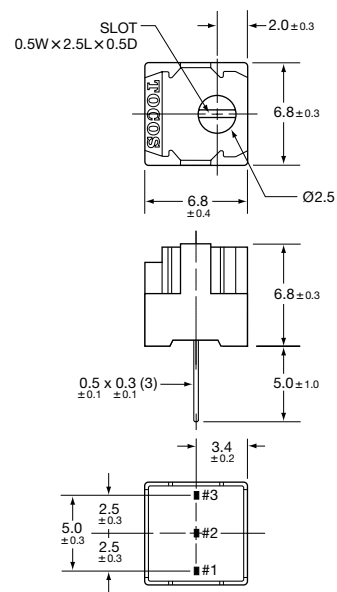
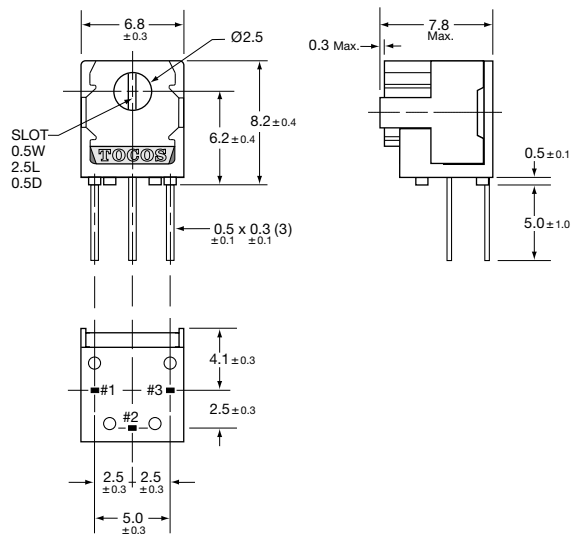
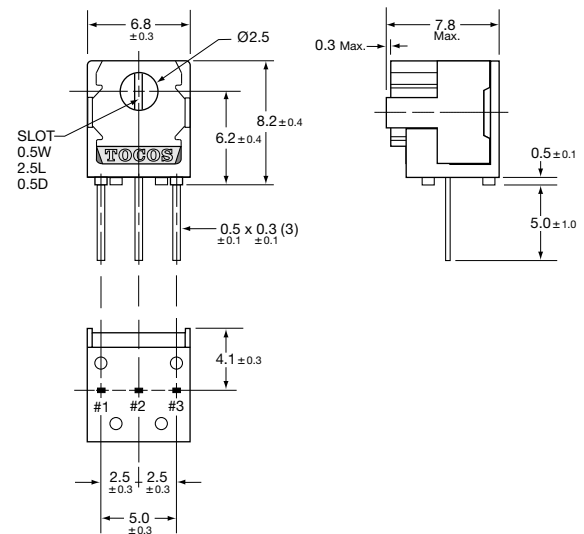
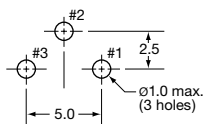
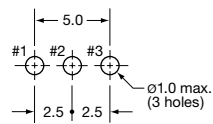
Mechanical

Mechanical Travel	2 turns ($735^{\circ} \pm 10^{\circ}$)
Shaft Torque	200 gf•cm (2.77 oz•in) max.
Stop Strength	300 gf•cm (4.16 oz•in) min.
Flammability of Plastic Materials	Meets UL 94V-0
Nominal Weight	0.5g (P, U); 0.6g (S, V)
Marking	Resistance code, date code

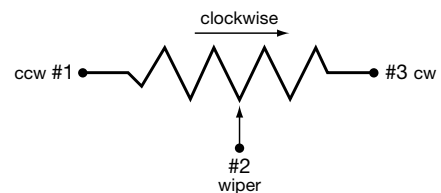
Environmental

Temperature Range	-55°C to $+125^{\circ}\text{C}$
Low Temperature Operation	-55°C , 0.5 watt, 1 hour $\Delta T/R \leq \pm 2\%$
High Temperature Exposure	$+125^{\circ}\text{C}$, 250 hours $\Delta T/R \leq \pm 2\%$, S.S. $\leq \pm 1\%$
Load Life	$+70^{\circ}\text{C}$, 0.5 watt, 1,000 hours $\Delta T/R \leq \pm 3\%$, S.S. $\leq \pm 1\%$
Thermal Shock	-55°C , $+125^{\circ}\text{C}$, 30 minutes each, 5 cycles $\Delta T/R \leq \pm 1\%$, S.S. $\leq \pm 1\%$
Shock	100G, 6ms, 6 directions, 3 times each $\Delta T/R \leq \pm 2\%$, 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, 0.5 watt, 500 hours $\Delta T/R \leq \pm 3\%$, S.S. $\leq \pm 1\%$
Moisture Resistance	-10°C to $+65^{\circ}\text{C}$, 80-98%RH, 0.5 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)

GV6P**P Terminal Style, Single-Slot, Top Adjust****GV6U****U Terminal Style, Single-Slot, Top Adjust****GV6S****S Terminal Style, Single-Slot, Side Adjust****GV6V****V Terminal Style, Single-Slot, Side Adjust****Recommended PCB Layout****P & S Pin-Out****U & V Pin-Out**

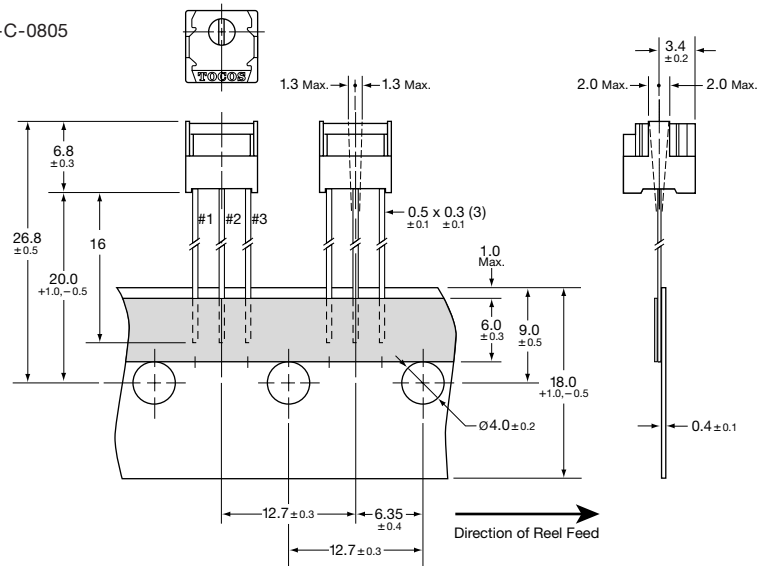
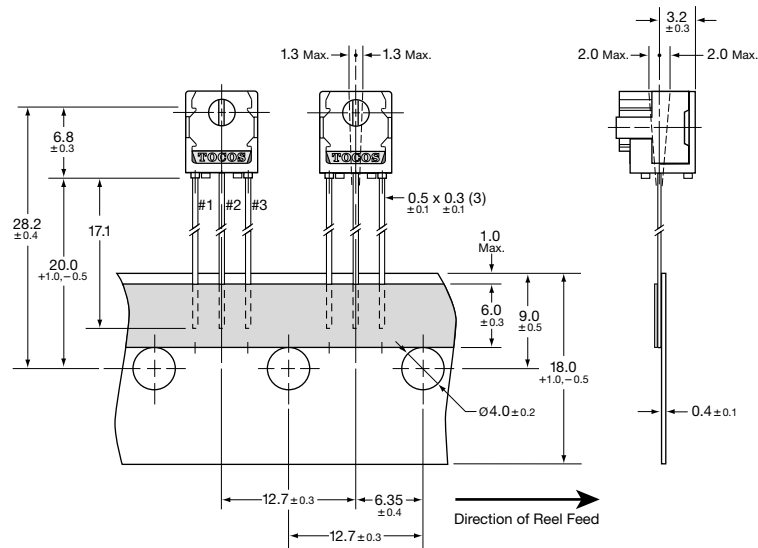
Unit: mm

Electrical Schematic

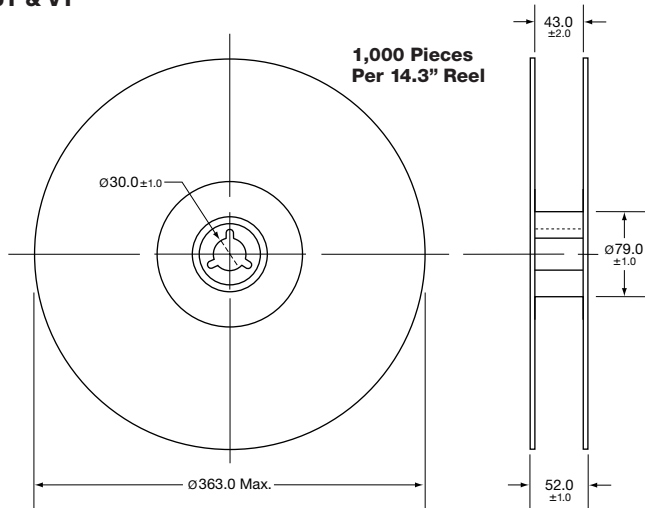
Unit: mm

Tape Dimensions

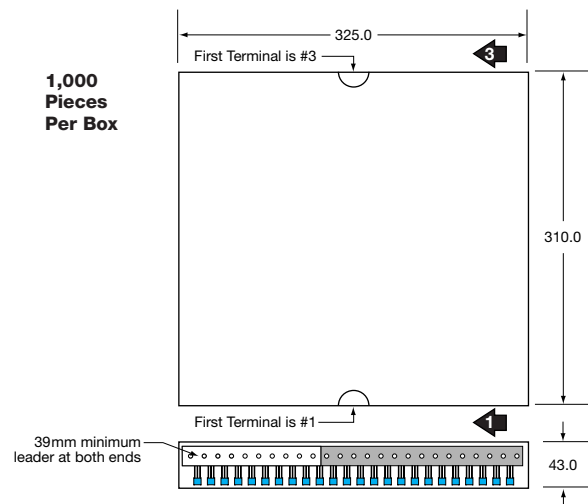
Conforms to EIA-468-B and JIS-C-0805

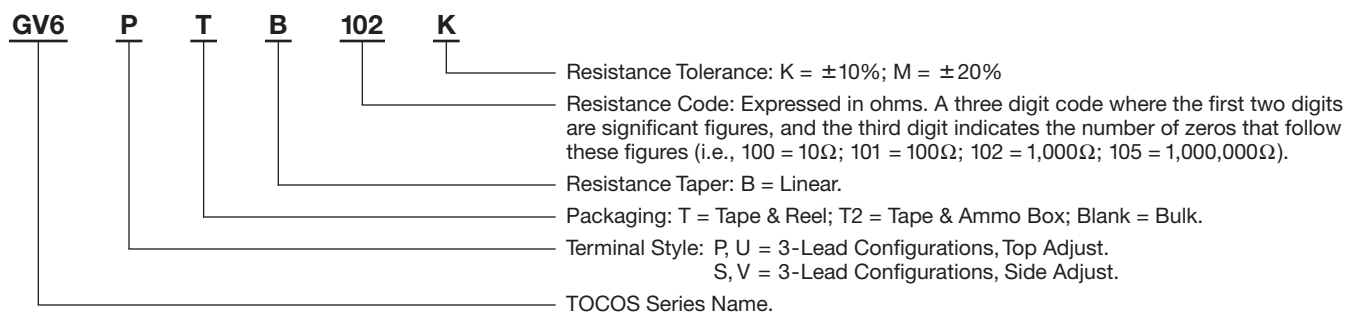
GV6UT & GV6UT2**GV6VT & GV6VT2****Reel Dimensions**

Conforms to EIA-468-B and JIS-C-0805

UT & VT**Ammo Box Dimensions**

Conforms to EIA-468-B and JIS-C-0805

UT2 & VT2



Part Numbers

Nominal Resistance		Resistance Tolerance: K = ±10% (see footnote for M = ±20%)			Potentiometer Styles
Value (Ω)	Code	Catalog No.* Tape & Reel	Catalog No.* Tape & Ammo Box	Catalog No.* Bulk	

GV6P Through-Hole, P Terminal Style, Single-Slot, Top Adjust

10	100	—	—	GV6P B 100 K
20	200	—	—	GV6P B 200 K
50	500	—	—	GV6P B 500 K
100	101	—	—	GV6P B 101 K
200	201	—	—	GV6P B 201 K
500	501	—	—	GV6P B 501 K
1,000	102	—	—	GV6P B 102 K
2,000	202	—	—	GV6P B 202 K
5,000	502	—	—	GV6P B 502 K
10,000	103	—	—	GV6P B 103 K
20,000	203	—	—	GV6P B 203 K
50,000	503	—	—	GV6P B 503 K
100,000	104	—	—	GV6P B 104 K
200,000	204	—	—	GV6P B 204 K
500,000	504	—	—	GV6P B 504 K
1,000,000	105	—	—	GV6P B 105 K



GV6P

GV6U Through-Hole, U Terminal Style, Single-Slot, Top Adjust

10	100	GV6UT B 100 K	GV6UT2 B 100 K	GV6U B 100 K
20	200	GV6UT B 200 K	GV6UT2 B 200 K	GV6U B 200 K
50	500	GV6UT B 500 K	GV6UT2 B 500 K	GV6U B 500 K
100	101	GV6UT B 101 K	GV6UT2 B 101 K	GV6U B 101 K
200	201	GV6UT B 201 K	GV6UT2 B 201 K	GV6U B 201 K
500	501	GV6UT B 501 K	GV6UT2 B 501 K	GV6U B 501 K
1,000	102	GV6UT B 102 K	GV6UT2 B 102 K	GV6U B 102 K
2,000	202	GV6UT B 202 K	GV6UT2 B 202 K	GV6U B 202 K
5,000	502	GV6UT B 502 K	GV6UT2 B 502 K	GV6U B 502 K
10,000	103	GV6UT B 103 K	GV6UT2 B 103 K	GV6U B 103 K
20,000	203	GV6UT B 203 K	GV6UT2 B 203 K	GV6U B 203 K
50,000	503	GV6UT B 503 K	GV6UT2 B 503 K	GV6U B 503 K
100,000	104	GV6UT B 104 K	GV6UT2 B 104 K	GV6U B 104 K
200,000	204	GV6UT B 204 K	GV6UT2 B 204 K	GV6U B 204 K
500,000	504	GV6UT B 504 K	GV6UT2 B 504 K	GV6U B 504 K
1,000,000	105	GV6UT B 105 K	GV6UT2 B 105 K	GV6U B 105 K



GV6U

*Substitute code letter M in place of K at end of catalog part number for ±20% resistance tolerance.

GV6 Series

Part Numbers

Nominal Resistance		Resistance Tolerance: K = $\pm 10\%$ (see footnote for M = $\pm 20\%$)			Potentiometer Styles
Value (Ω)	Code	Catalog No.* Tape & Reel	Catalog No.* Tape & Ammo Box	Catalog No.* Bulk	

GV6S Through-Hole, S Terminal Style, Single-Slot, Side Adjust

10	100	—	—	GV6S B 100 K
20	200	—	—	GV6S B 200 K
50	500	—	—	GV6S B 500 K
100	101	—	—	GV6S B 101 K
200	201	—	—	GV6S B 201 K
500	501	—	—	GV6S B 501 K
1,000	102	—	—	GV6S B 102 K
2,000	202	—	—	GV6S B 202 K
5,000	502	—	—	GV6S B 502 K
10,000	103	—	—	GV6S B 103 K
20,000	203	—	—	GV6S B 203 K
50,000	503	—	—	GV6S B 503 K
100,000	104	—	—	GV6S B 104 K
200,000	204	—	—	GV6S B 204 K
500,000	504	—	—	GV6S B 504 K
1,000,000	105	—	—	GV6S B 105 K



GV6S

GV6V Through-Hole, V Terminal Style, Single-Slot, Side Adjust

10	100	GV6VT B 100 K	GV6VT2 B 100 K	GV6V B 100 K
20	200	GV6VT B 200 K	GV6VT2 B 200 K	GV6V B 200 K
50	500	GV6VT B 500 K	GV6VT2 B 500 K	GV6V B 500 K
100	101	GV6VT B 101 K	GV6VT2 B 101 K	GV6V B 101 K
200	201	GV6VT B 201 K	GV6VT2 B 201 K	GV6V B 201 K
500	501	GV6VT B 501 K	GV6VT2 B 501 K	GV6V B 501 K
1,000	102	GV6VT B 102 K	GV6VT2 B 102 K	GV6V B 102 K
2,000	202	GV6VT B 202 K	GV6VT2 B 202 K	GV6V B 202 K
5,000	502	GV6VT B 502 K	GV6VT2 B 502 K	GV6V B 502 K
10,000	103	GV6VT B 103 K	GV6VT2 B 103 K	GV6V B 103 K
20,000	203	GV6VT B 203 K	GV6VT2 B 203 K	GV6V B 203 K
50,000	503	GV6VT B 503 K	GV6VT2 B 503 K	GV6V B 503 K
100,000	104	GV6VT B 104 K	GV6VT2 B 104 K	GV6V B 104 K
200,000	204	GV6VT B 204 K	GV6VT2 B 204 K	GV6V B 204 K
500,000	504	GV6VT B 504 K	GV6VT2 B 504 K	GV6V B 504 K
1,000,000	105	GV6VT B 105 K	GV6VT2 B 105 K	GV6V B 105 K



GV6V

*Substitute code letter M in place of K at end of catalog part number for $\pm 20\%$ resistance tolerance.

Packaging

Standard:

Tape & Reel Packaging

UT & VT

1,000 pieces per 14.3" reel.

Tape & Ammo Packaging

UT2 & VT2

1,000 pieces per ammo box.

Bulk Packaging

All GV6 Models

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.