

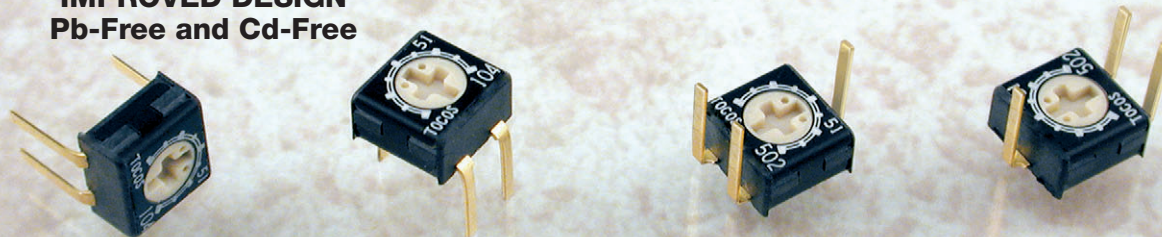
G43C Series

TOCOS®

POTENTIOMETERS

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

**RoHS Compliant
IMPROVED DESIGN
Pb-Free and Cd-Free**



Features

- 4mm square, single-turn, through-hole, sealed cermet trimmers
- Top and bottom cross-slot adjustment
- Space-saving G43 series SMD-sized units with through-hole terminals
- High setting accuracy, zero backlash
- Meets EIA, EIAJ, IPC, VECL standard SMD trimmer designs
- Pb-free and Cd-free construction
- RoHS compliant
- Gold-plated leads provide high conductivity, low contact resistance, high corrosion resistance and good solderability

Specifications

Electrical

Standard Resistance Range	50Ω to 2MΩ (standard 1, 2 & 5 sequence)
Resistance Tolerance	±20% standard ±10% optional for 100Ω to 1MΩ
End Resistance	1% or 3Ω, whichever is greater
Resistance Taper	B = Linear
Peak Noise (C.R.V.)	2% or 3Ω, whichever is greater
Power Rating	0.25 watt at +70°C; 0 watt at +125°C
Maximum Input Voltage	200VDC or power rating, whichever is smaller
Temperature Coefficient	±100ppm/°C, 200Ω to 1MΩ ±250ppm/°C, other values
Insulation Resistance	100MΩ minimum at 500VDC
Dielectric Strength	500VAC, 1 minute
Adjustment Travel	200° ± 10°

Mechanical

Mechanical Travel	240° ± 10°
Shaft Torque	150 gf·cm (2.08 oz·in) max.
Stop Strength	300 gf·cm (4.16 oz·in) min.
Flammability of Plastic Materials	Meets UL 94V-0
Nominal Weight	0.16g
Marking	Resistance value or code, date code

**For surface mount models of the G43C series,
refer to the G43 Series.**

Environmental

Temperature Range	-55°C to +125°C
Low Temperature Operation	-55°C, 0.25 watt, 45 minutes ΔT/R ≤ ±2%, S.S. ≤ ±2%
High Temperature Exposure	+125°C, 250 hours ΔT/R ≤ ±2%, S.S. ≤ ±2%
Load Life	+70°C, 0.25 watt, 1,000 hours ΔT/R ≤ ±3%, S.S. ≤ ±2%
Thermal Shock	-55°C, +125°C, 30 minutes each, 5 cycles ΔT/R ≤ ±2%, S.S. ≤ ±1%
Shock	100G, 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, 0.25 watt, 500 hours ΔT/R ≤ ±3%, S.S. ≤ ±2%
Moisture Resistance	-10°C to +65°C, 80-98% RH, 0.25 watt, 10 cycles, 240 hours ΔT/R ≤ ±3%
Soldering Heat Resistance	260°C, 10 seconds ΔT/R ≤ ±1%
Seal Test	+85°C, hot water for 1 minute
Rotational Life	100 cycles without discontinuity, no load ΔT/R ≤ ±5%

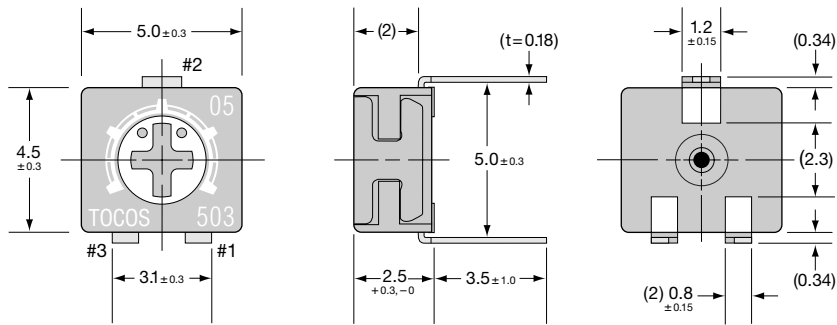
ΔT/R = Total Resistance Change; S.S. = Setting Stability (voltage ratio)

G43C Series

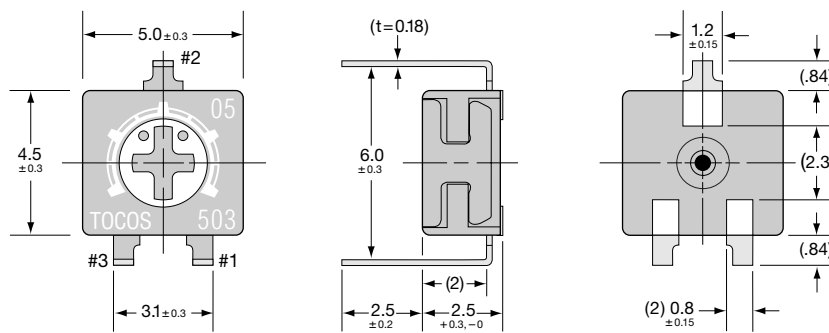
Dimensions

G43C Through-Hole, C Terminal Style, Top Adjust

Unit: mm



G43CF Through-Hole, CF Terminal Style, Bottom Adjust

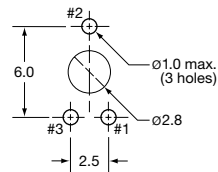
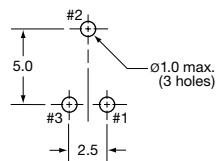


Recommended PCB Layouts

C Pin-Out

CF Pin-Out

Unit: mm

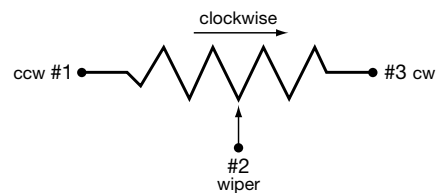
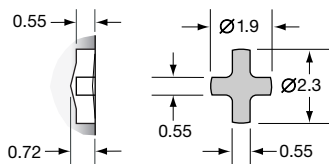


Cross-Slot Dimensions

Electrical Schematic

G43C & G43CF

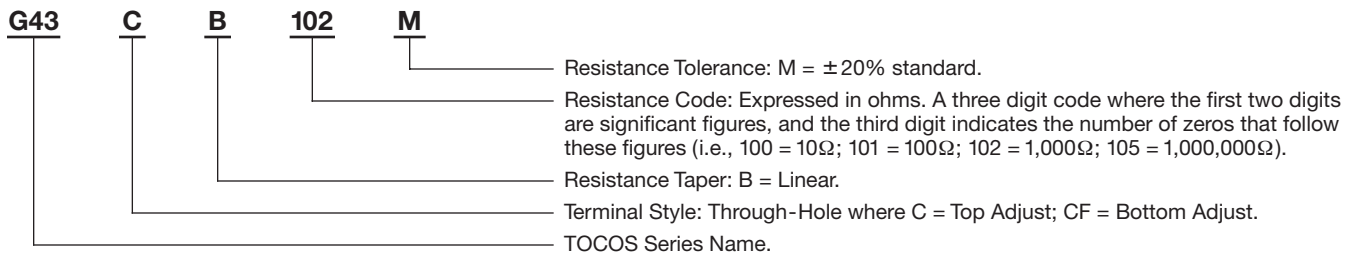
Unit: mm



Cross-Slot accepts both Philips and single blade adjustment tools.

G43C Series

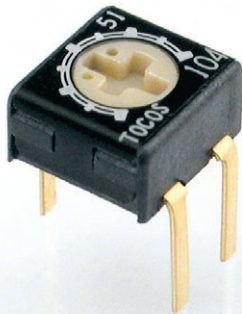
Part Numbering System



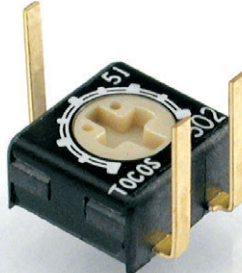
Part Numbers

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

G43C Through-Hole, C Terminal Style, Cross-Slot, Top Adjust

Value (Ω)	Code	Catalog No. Bulk	Potentiometer Styles
10	100	G43C B 100 M	 G43C
20	200	G43C B 200 M	
50	500	G43C B 500 M	
100	101	G43C B 101 M	
200	201	G43C B 201 M	
500	501	G43C B 501 M	
1,000	102	G43C B 102 M	
2,000	202	G43C B 202 M	
5,000	502	G43C B 502 M	
10,000	103	G43C B 103 M	
20,000	203	G43C B 203 M	
50,000	503	G43C B 503 M	
100,000	104	G43C B 104 M	
200,000	204	G43C B 204 M	
500,000	504	G43C B 504 M	
1,000,000	105	G43C B 105 M	
2,000,000	205	G43C B 205 M	

G43CF Through-Hole, CF Terminal Style, Cross-Slot, Bottom Adjust

Value (Ω)	Code	Catalog No. Bulk	Potentiometer Styles
10	100	G43CF B 100 M	 G43CF
20	200	G43CF B 200 M	
50	500	G43CF B 500 M	
100	101	G43CF B 101 M	
200	201	G43CF B 201 M	
500	501	G43CF B 501 M	
1,000	102	G43CF B 102 M	
2,000	202	G43CF B 202 M	
5,000	502	G43CF B 502 M	
10,000	103	G43CF B 103 M	
20,000	203	G43CF B 203 M	
50,000	503	G43CF B 503 M	
100,000	104	G43CF B 104 M	
200,000	204	G43CF B 204 M	
500,000	504	G43CF B 504 M	
1,000,000	105	G43CF B 105 M	
2,000,000	205	G43CF B 205 M	

Packaging

Standard:

Bulk Packaging

Quantity

100 pieces per vinyl bag. 1,000 pieces per box.

Soldering and Cleaning Guidelines

The G43C trimmers are designed to withstand the same flow or reflow soldering methods as the SMD G43 series. Refer to the SMD G43 series for soldering profiles. For cleaning and other information, refer to Guidelines and Precautions for Using Potentiometers.