

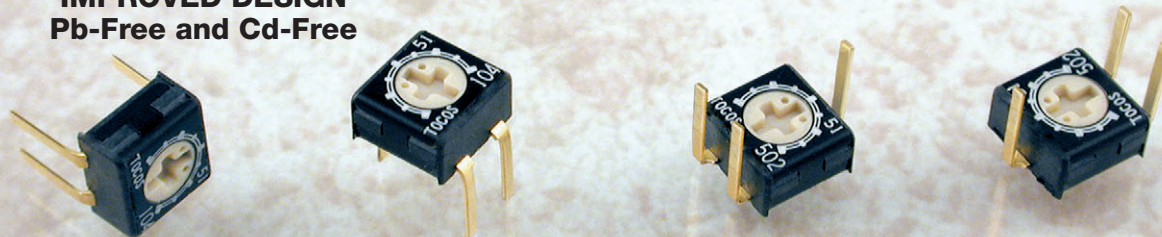
# G43C Series

# TOCOS<sup>®</sup>

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

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

#### Mechanical

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

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

#### Environmental

<b>Temperature Range</b>	-55°C to +125°C
<b>Low Temperature Operation</b>	-55°C, 0.25 watt, 45 minutes ΔT/R ≤ ±2%, S.S. ≤ ±2%
<b>High Temperature Exposure</b>	+125°C, 250 hours ΔT/R ≤ ±2%, S.S. ≤ ±2%
<b>Load Life</b>	+70°C, 0.25 watt, 1,000 hours ΔT/R ≤ ±3%, S.S. ≤ ±2%
<b>Thermal Shock</b>	-55°C, +125°C, 30 minutes each, 5 cycles ΔT/R ≤ ±2%, S.S. ≤ ±1%
<b>Shock</b>	100G, 6ms, 6 directions, 3 times each ΔT/R ≤ ±1%, S.S. ≤ ±1%
<b>Vibration</b>	10-2,000Hz, 1.5mm amplitude, 20G, 12 hours ΔT/R ≤ ±1%, S.S. ≤ ±1%
<b>Humidity</b>	+40°C, 90-95% RH, 0.25 watt, 500 hours ΔT/R ≤ ±3%, S.S. ≤ ±2%
<b>Moisture Resistance</b>	-10°C to +65°C, 80-98% RH, 0.25 watt, 10 cycles, 240 hours ΔT/R ≤ ±3%
<b>Soldering Heat Resistance</b>	260°C, 10 seconds ΔT/R ≤ ±1%
<b>Seal Test</b>	+85°C, hot water for 1 minute
<b>Rotational Life</b>	100 cycles without discontinuity, no load ΔT/R ≤ ±5%

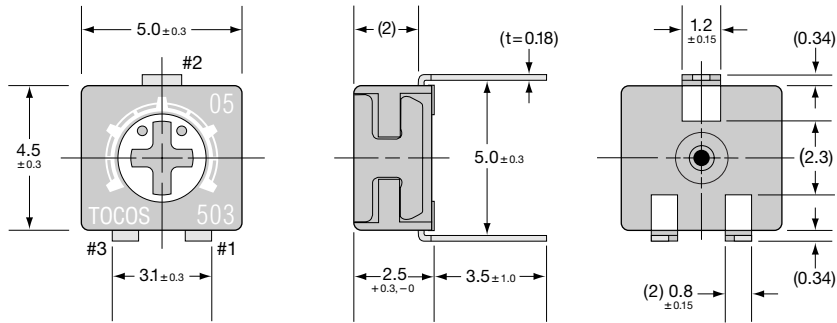
ΔT/R = Total Resistance Change; S.S. = Setting Stability (voltage ratio)

# G43C Series

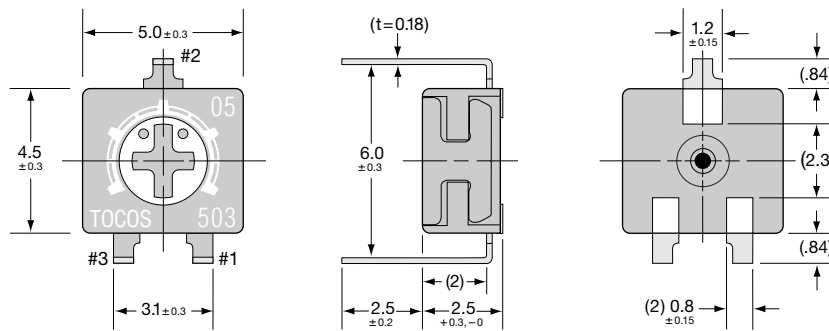
# Dimensions

## G43C Through-Hole, C Terminal Style, Top Adjust

Unit: mm



## G43CF Through-Hole, CF Terminal Style, Bottom Adjust

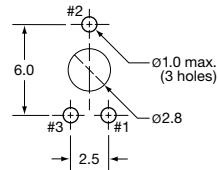
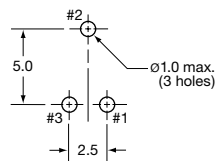


## Recommended PCB Layouts

### C Pin-Out

### CF Pin-Out

Unit: mm

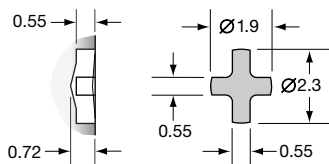


## Cross-Slot Dimensions

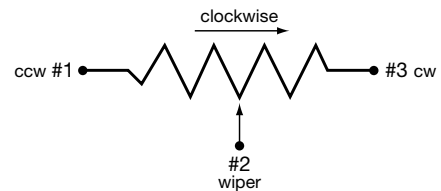
## Electrical Schematic

### G43C & G43CF

Unit: mm

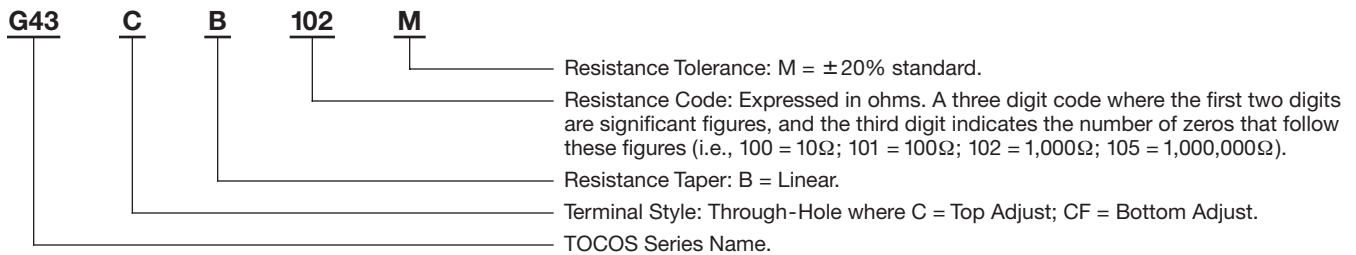


**Cross-Slot accepts both Philips and single blade adjustment tools.**



## G43C Series

## Part Numbering System

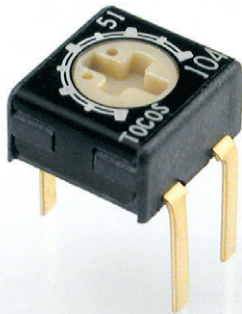


## Part Numbers

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

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

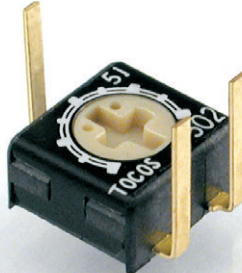
10	100	G43C B 100 M
20	200	G43C B 200 M
50	500	G43C B 500 M
100	101	G43C B 101 M
200	201	G43C B 201 M
500	501	G43C B 501 M
1,000	102	G43C B 102 M
2,000	202	G43C B 202 M
5,000	502	G43C B 502 M
10,000	103	G43C B 103 M
20,000	203	G43C B 203 M
50,000	503	G43C B 503 M
100,000	104	G43C B 104 M
200,000	204	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



**G43C**

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

10	100	G43CF B 100 M
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



**G43CF**

## 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.