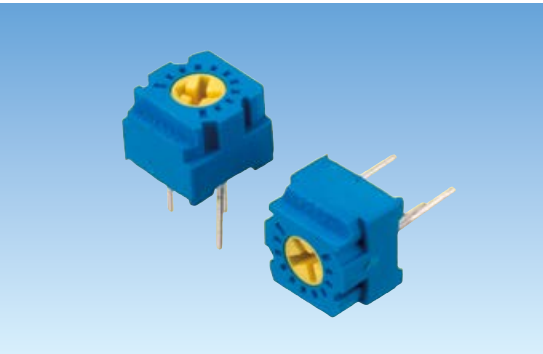


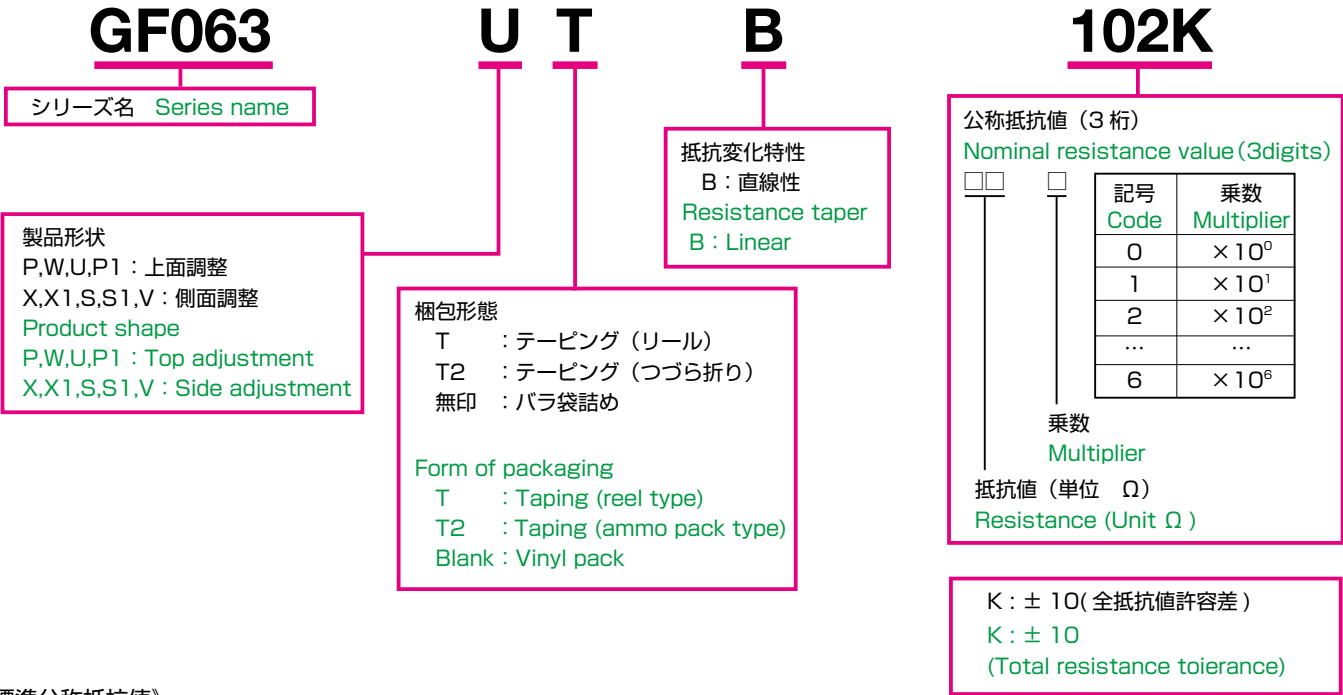
GF063 Series



RoHS 指令対応 RoHS compliant

- 特徴
- 種類が豊富
 - 高性能、高信頼性（マルチ接点ワイパーを採用）
 - 自動調整対応タイプにつき、調整用ドライバーの挿入が容易
 - 密封構造につき、各種洗浄液による洗浄が可能
 - シャフト径が大きく、市販の調整ドライバー使用可
- Features
- wide variety of models available.
 - Excellent performance and high reliability with precious metal, multi-contact wiper design.
 - Cross slot design allows automatic machine adjustment.
 - Sealed to withstand immersion cleaning processes with various cleaning agent.
 - Large dia. shaft helps to use commercially available adjustment drivers.

■品名構成 PART NUMBER COMPOSITION



《標準公称抵抗値》
《Nominal resistance value》

公称抵抗値 Nominal resistance value	記号 Code	公称抵抗値 Nominal resistance value	記号 Code	公称抵抗値 Nominal resistance value	記号 Code
10 Ω	100	20 Ω	200	50 Ω	500
100 Ω	101	200 Ω	201	500 Ω	501
1kΩ	102	2kΩ	202	5kΩ	502
10kΩ	103	20kΩ	203	50kΩ	503
100kΩ	104	200kΩ	204	500kΩ	504
1MΩ	105	2MΩ	205	—	—

■電気的特性 ELECTRICAL CHARACTERISTICS

全抵抗値範囲	Total resistance range	10 Ω ~ 2 MΩ	10 Ω to 2 MΩ
全抵抗値許容差	Total resistance tolerance	± 10%	± 10%
残留抵抗値	End resistance	1 % 又は 1 Ω の大なる値以下	1 % or 1 Ω, whichever is greater
抵抗変化特性	Resistance taper	B (直線型)	B (Linear)
接触抵抗変化	Contact resistance variation	1 % 又は 1 Ω の大なる値以下	1 % or 1 Ω, whichever is greater
定格電力	Power rating	0.5W / 70°C 0W / 125°C	0.5W / 70°C 0W / 125°C
最高使用電圧	Max. input voltage	DC 250V 又は $V = \sqrt{(WR)}$ により定格電力を超えない値 DC 250V or power rating, whichever is smaller	
抵抗温度係数	Temp. coefficient	± 100ppm / °C	± 100ppm / °C
絶縁抵抗	Insulation resistance	1,000MΩ 以上 (DC 500V)	1,000MΩ min. (DC 500V)
耐電圧	Dielectric strength	AC 900V 1 分間	AC 900V 1 minute
電氣的回転角度	Electrical angle	220° ± 10 度	220° ± 10°

■機械的特性 MECHANICAL CHARACTERISTICS

機械的回転角度	Mechanical angle	250° ± 10 度	250° ± 10°
回転トルク	Shaft torque	0.98 ~ 19.6mN · m (10 ~ 200gf · cm)	
ストップ強度	Stop strength	49.0mN · m 以上 (500gf · cm 以上) 49.0mN · m min. (500gf · cm min.)	
使用温度範囲	Operating temp. range	- 55°C + 125°C	
端子強度	Terminal strength	引っ張り 9.8N 以上 (1kgf 以上) / 90° 折り曲げ 3 回以上 Tensile strength 9.8N min. (1kgf min.) / Bend strength 90° 3 times min.	
シャフト強度	Shaft strength	シャフト押し強度 9.8N (1kgf 以上) Push strength 9.8N (1kgf min.)	
質量	Weight	0.41g max. : P1,P,W,U 0.52g max. : X,X1,S,S1,V	

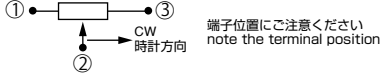
■環境特性 ENVIRONMENTAL CHARACTERISTICS

試験項目	Test item	試験条件	Test conditions	規格	Standard
はんだ耐熱性	Soldering heat	350°C 3 秒	350°C 3 sec.	$\Delta R / R \leq \pm 1 \%$	
回転寿命	Rotational life	100 サイクル	100 cycles	$\Delta R / R \leq \pm (2 \Omega + 3 \%)$	
負荷寿命	Load life	70°C 0.5W 1,000 hours		$\Delta R / R \leq \pm 3 \%$ S.S. $\leq \pm 2 \%$	
熱衝撃	Thermal shock	- 55°C, + 125°C (30 minutes) 5 cycles		$\Delta R / R \leq \pm 1 \%$ S.S. $\leq \pm 1 \%$	
高周波振動	Vibration	10Hz ~ 2kHz 振幅 1.5mm (196m/s ²) 12 時間 10Hz to 2kHz Amplitude 1.5mm (196m/s ²) 12 hr.		$\Delta R / R \leq \pm 1 \%$ S.S. $\leq \pm 1 \%$	
衝撃	Shock	981m/s ² 6msec. 6directions for 3times each		$\Delta R / R \leq \pm 1 \%$ S.S. $\leq \pm 1 \%$	
低温動作	Low temperature exposure	- 55°C, 0.5W 2 時間	- 55°C, 0.5W 2hr.	$\Delta R / R \leq \pm 2 \%$ S.S. $\leq \pm 2 \%$	
高温露出	High temperature exposure	+ 125°C, 250 時間	+ 125°C, 250 hr.	$\Delta R / R \leq \pm 2 \%$ S.S. $\leq \pm 2 \%$	
耐湿負荷寿命	Moisture and load life	+ 40°C, 90 to 95% RH 0.5W 500 hr.		$\Delta R / R \leq \pm 3 \%$ S.S. $\leq \pm 2 \%$	
耐湿性	Moisture resistance	- 10°C to + 65°C (90 to 95% RH) 0.5W 240 hr.		$\Delta R / R \leq \pm 2 \%$	
温水浸漬	Seal test	+ 85°C hot water 1 minute		3 bubbles max.	
耐溶剤性	Solvent	IPA 等	Alternative CFC, IPA etc.	洗浄可能 Washable	

$\Delta R / R$: 全抵抗値変化
S.S. : 設定安定度

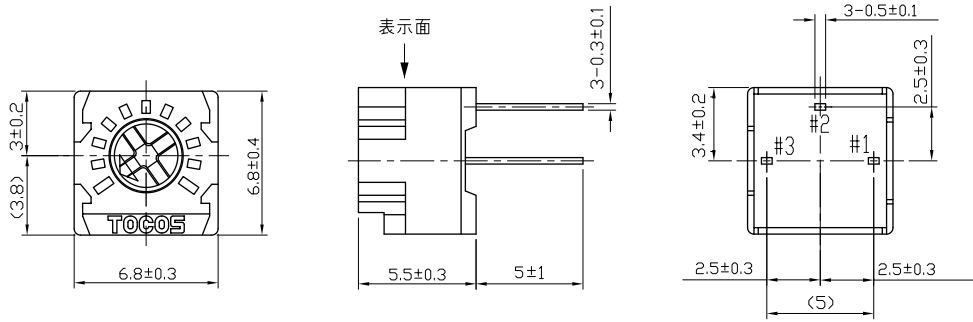
$\Delta R / R$: Change in total resistance
S.S. : Setting stability

外形寸法図 OUTLINE DIMENSIONS



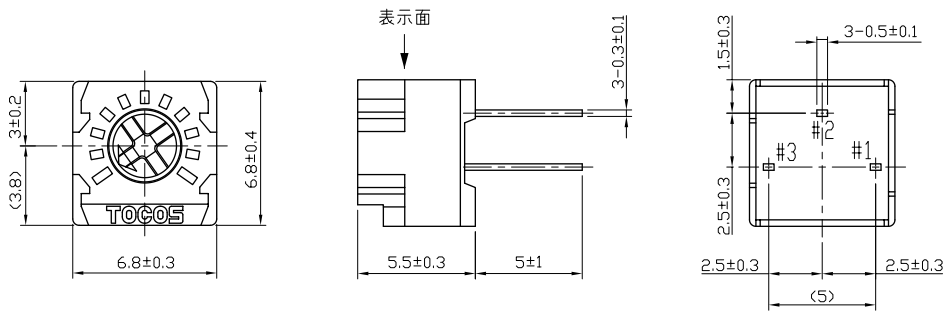
GF063P1

(Unit : mm)



GF063P

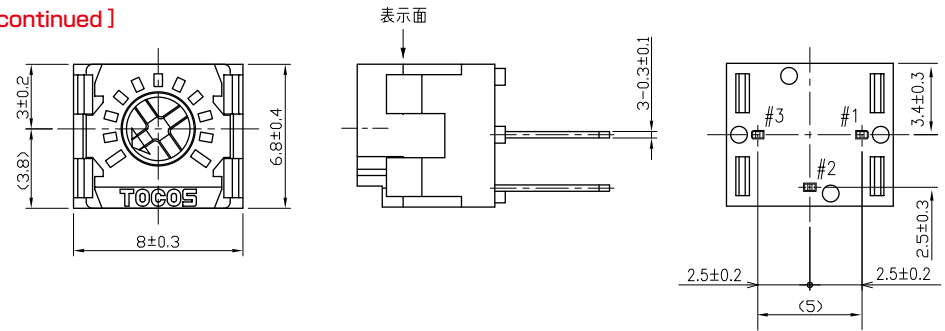
(Unit : mm)



GF063P2

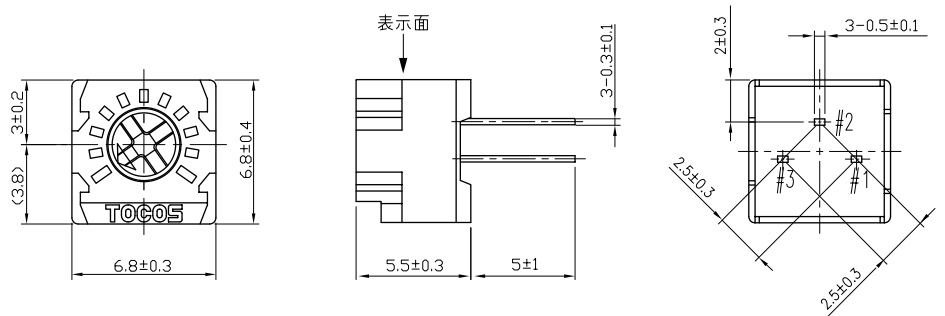
(Unit : mm)

【生産中止】 [Discontinued]



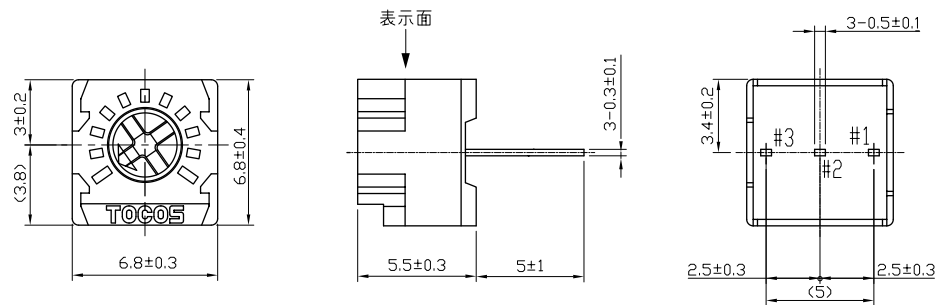
GF063W

(Unit : mm)

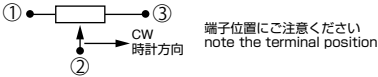


GF063U

(Unit : mm)

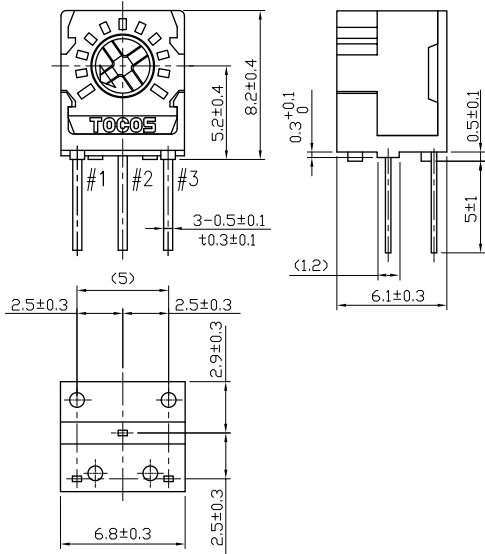


■外形寸法図 OUTLINE DIMENSIONS



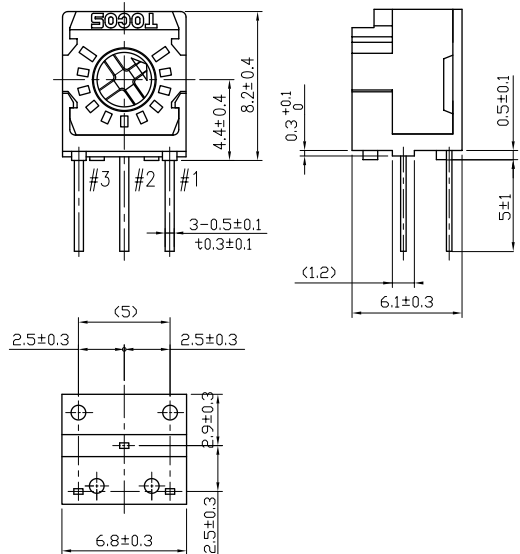
GF063X

(Unit : mm)



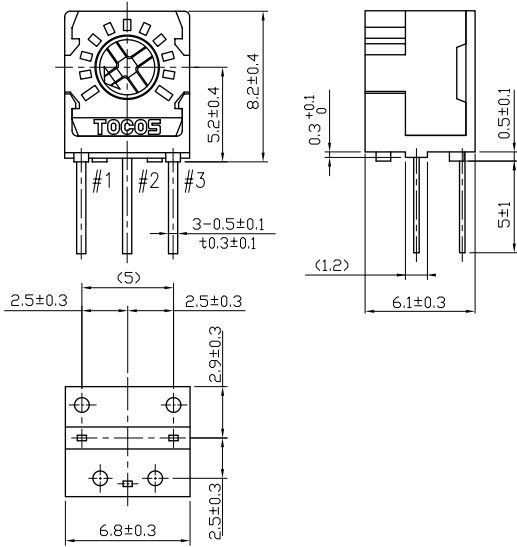
GF063X1

(Unit : mm)



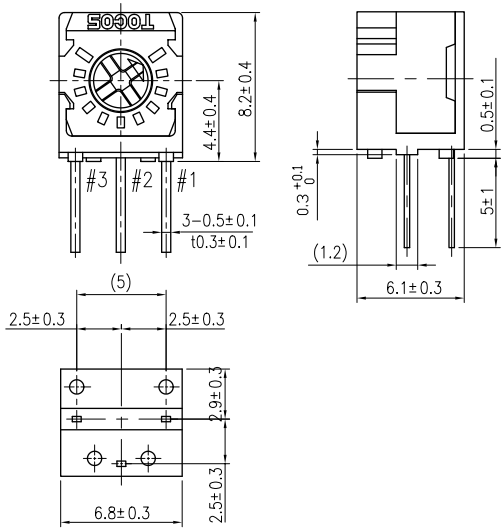
GF063S

(Unit : mm)



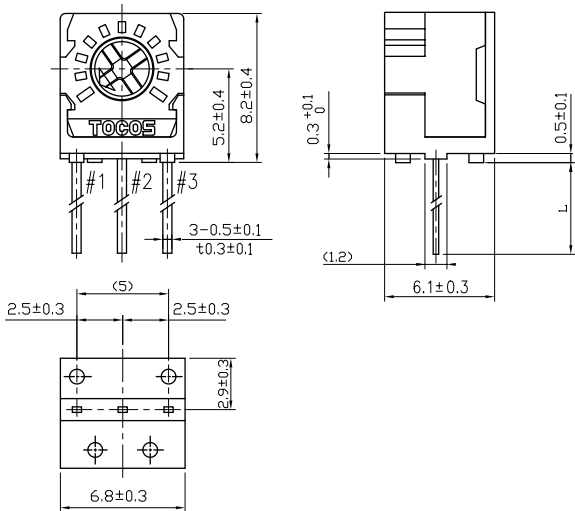
GF063S1

(Unit : mm)

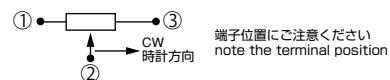


GF063V

(Unit : mm)

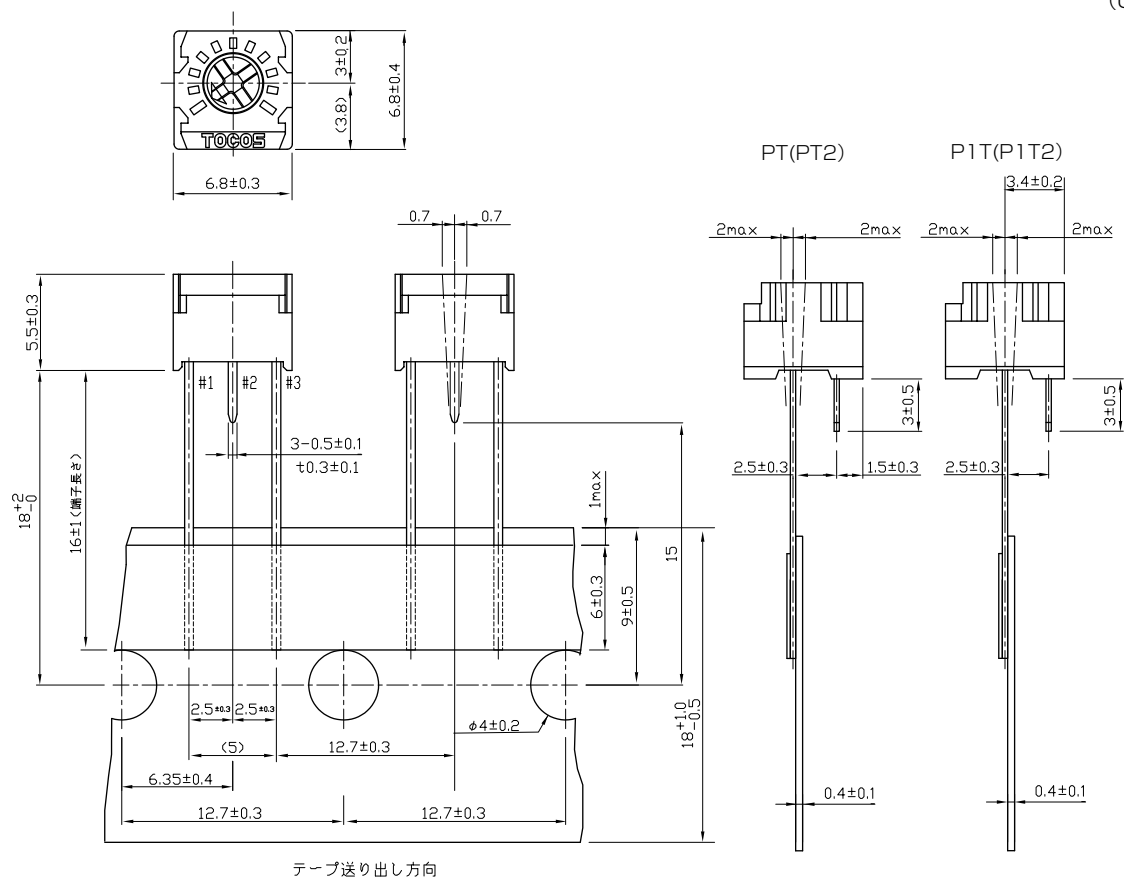


■外形寸法図 OUTLINE DIMENSIONS



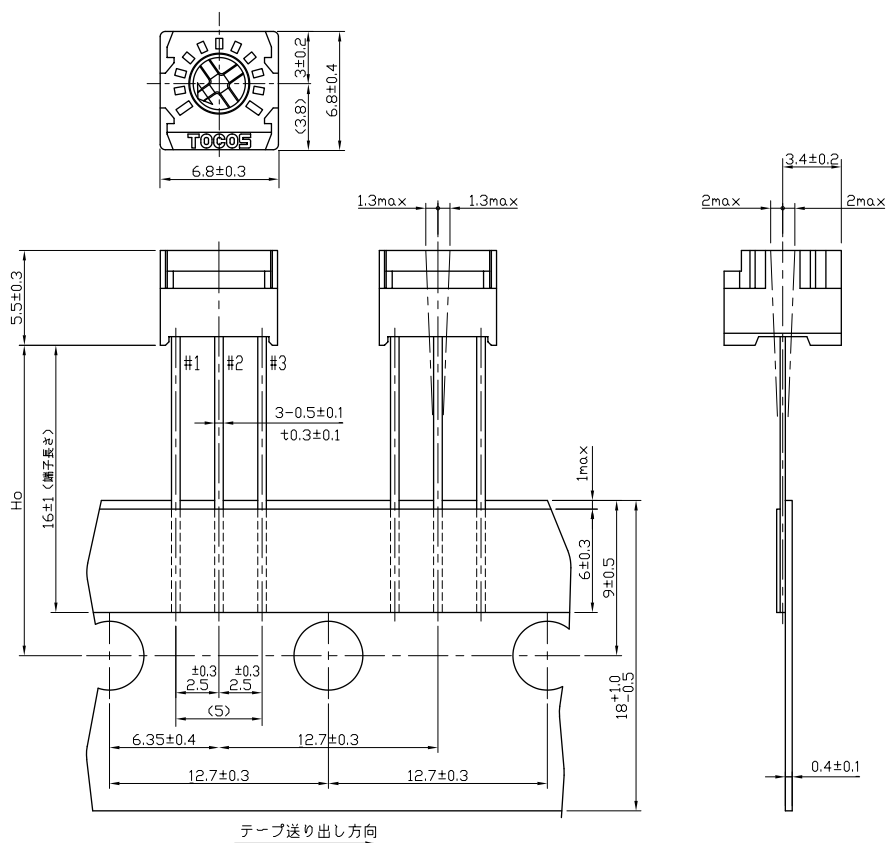
GF063P1T / GF063P1T2

(Unit : mm)

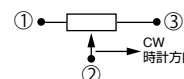


GF063UT / GF063UT2

(Unit : mm)



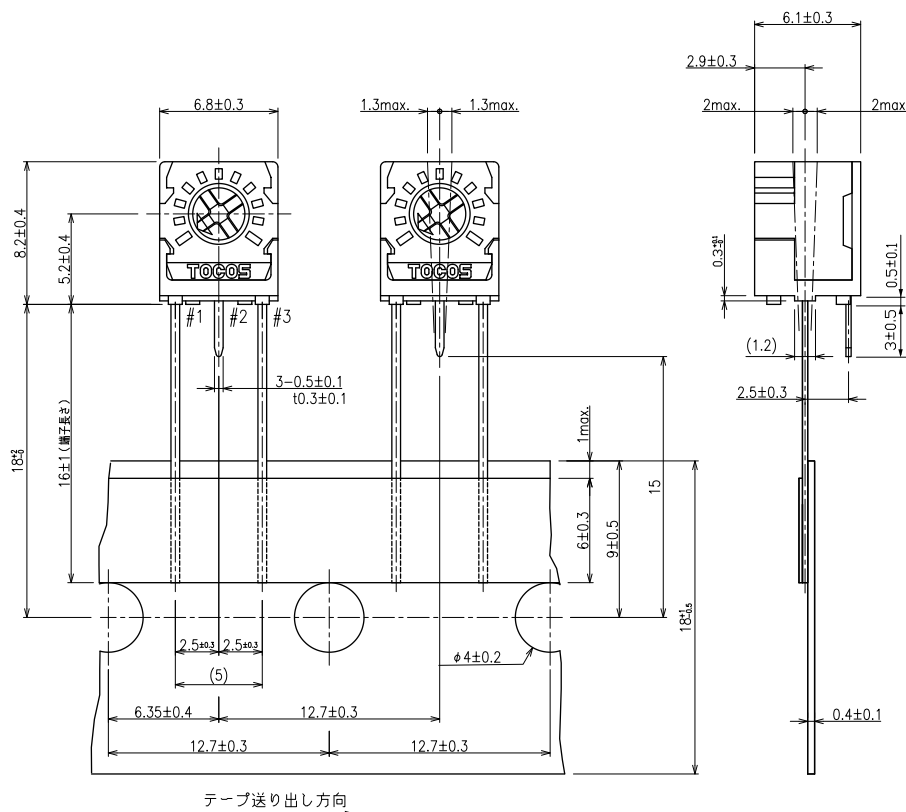
■外形寸法図 OUTLINE DIMENSIONS



端子位置にご注意ください
note the terminal position

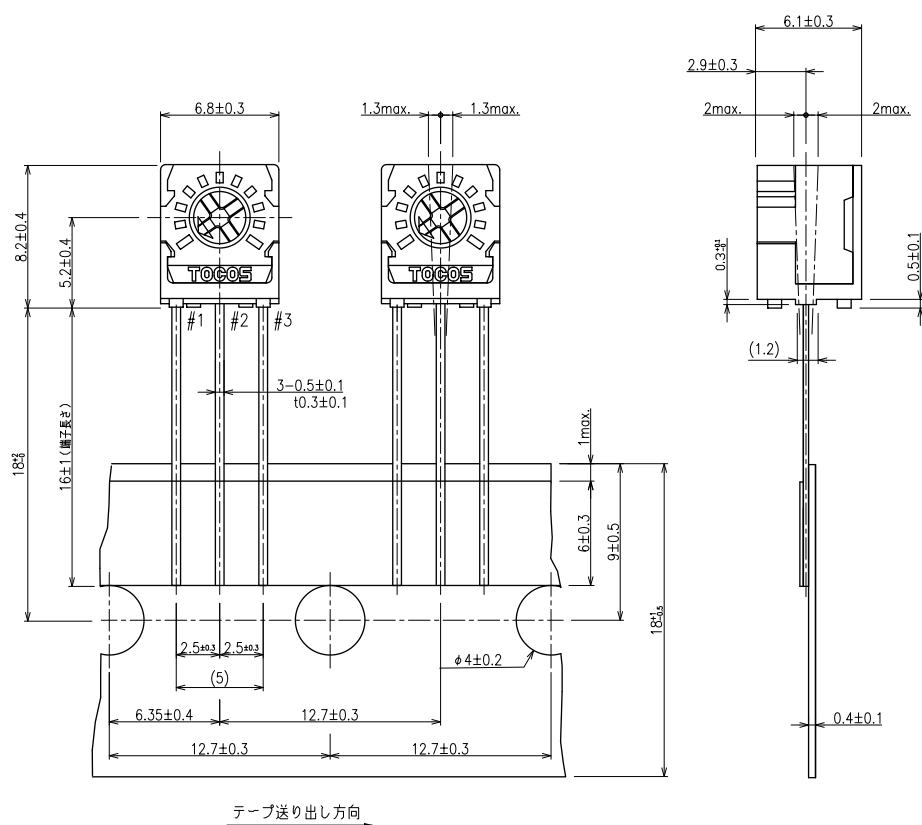
■ GF063ST / GF063ST2

(Unit : mm)

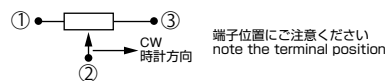


■ GF063VT / GF063VT2

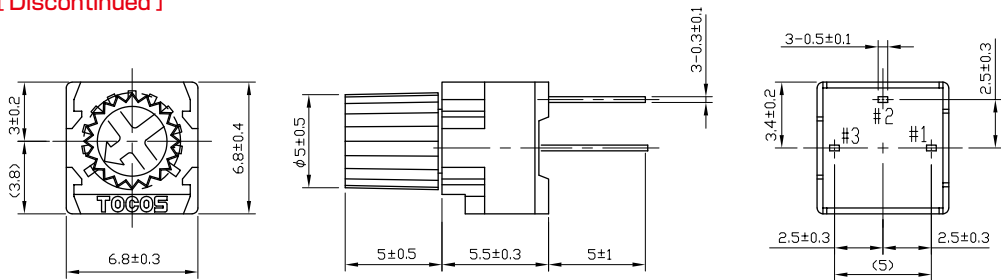
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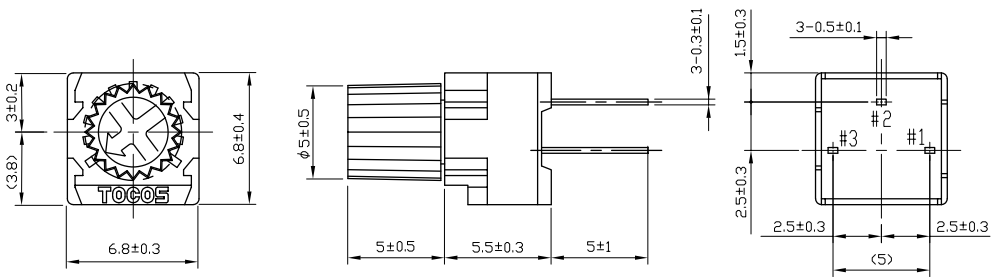
外形寸法図 OUTLINE DIMENSIONS



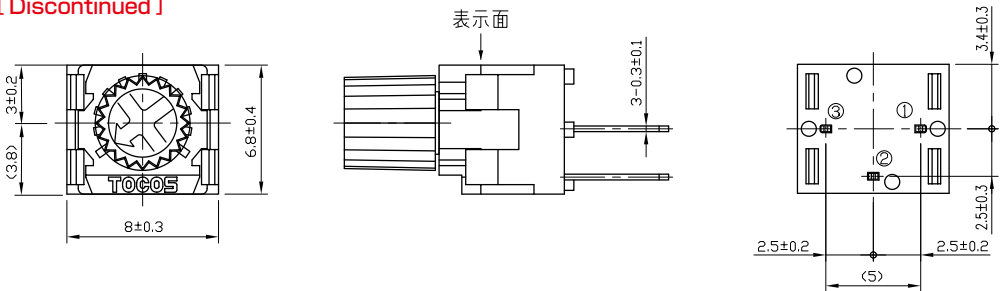
GF063P1K [生産中止] [Discontinued] (Unit : mm)



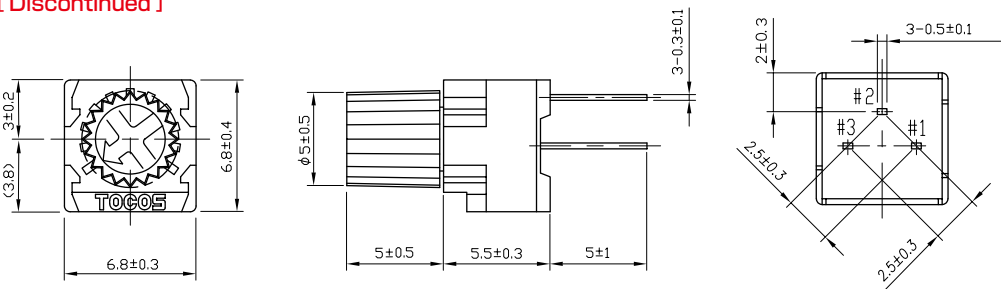
GF063PK [生産中止] [Discontinued] (Unit : mm)



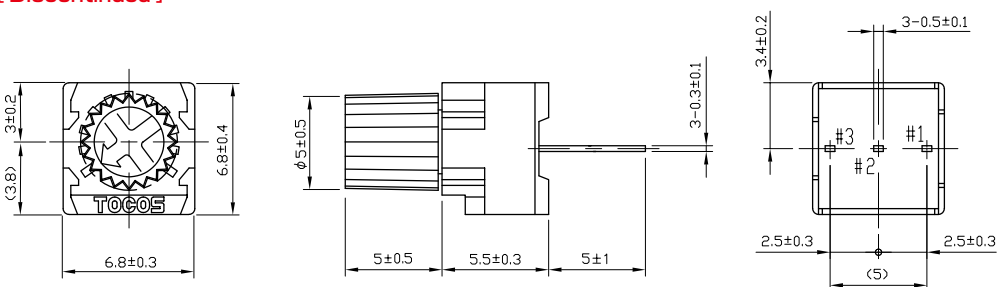
GF063P2K [生産中止] [Discontinued] (Unit : mm)



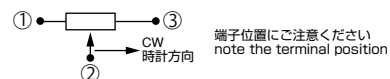
GF063WK [生産中止] [Discontinued] (Unit : mm)



GF063UK [生産中止] [Discontinued] (Unit : mm)



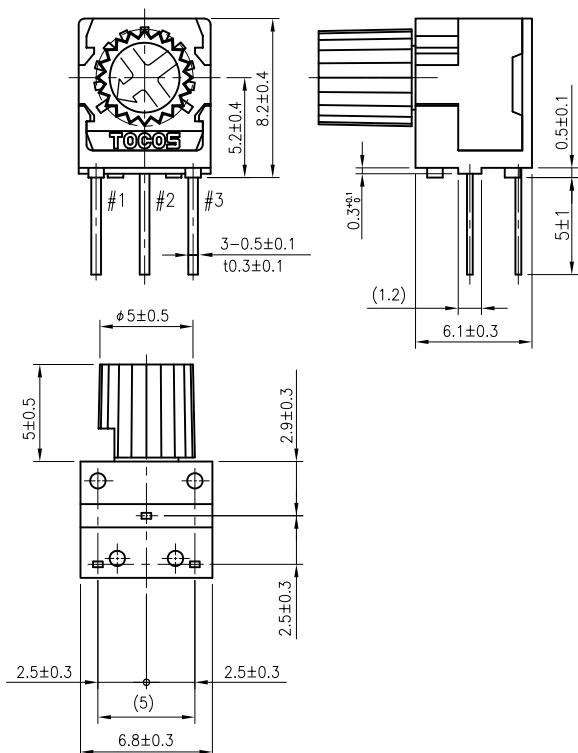
■外形寸法図 OUTLINE DIMENSIONS



GF063XK

【生産中止】【Discontinued】

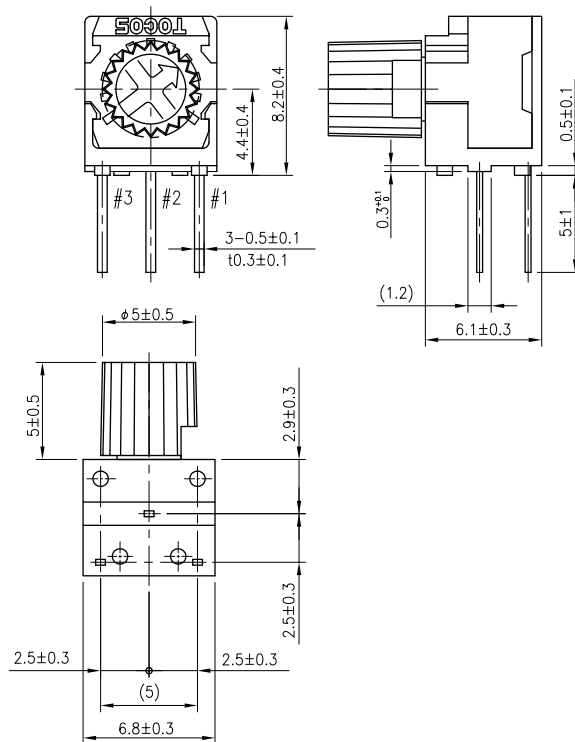
(Unit : mm)



GF063X1K

【生産中止】【Discontinued】

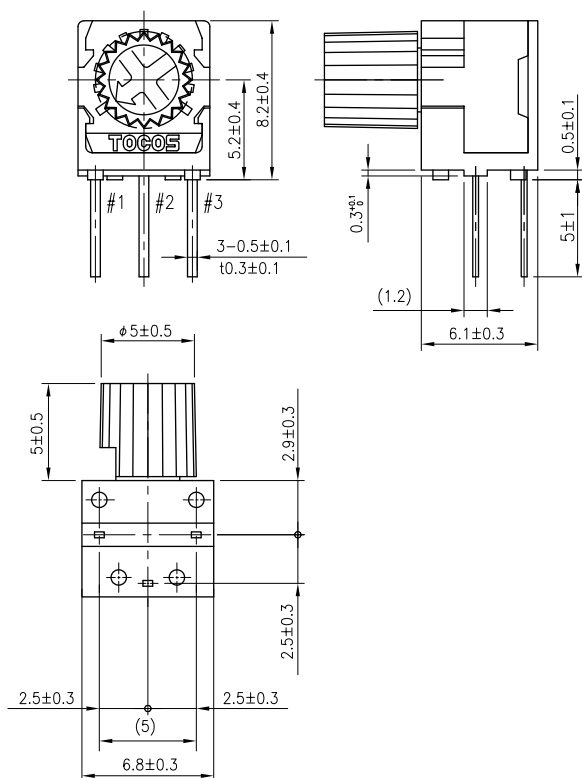
(Unit : mm)



GF063SK

【生産中止】【Discontinued】

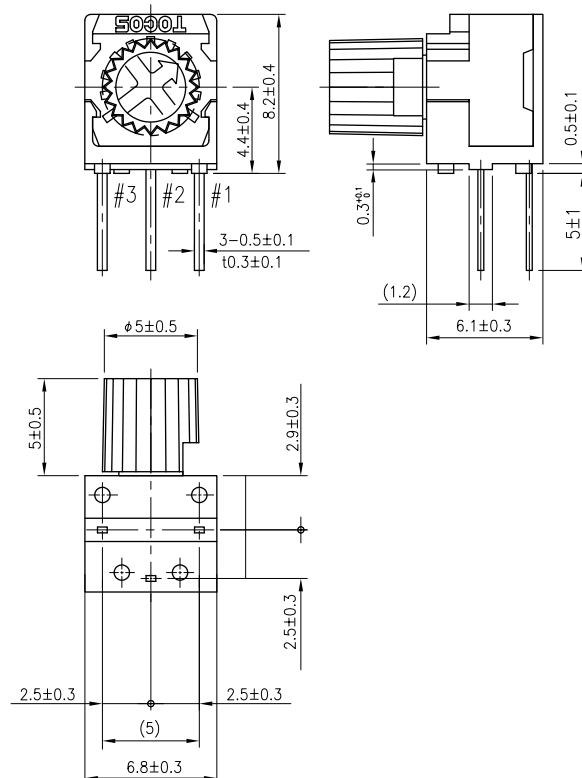
(Unit : mm)



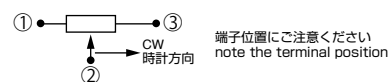
GF063S1K

【生産中止】【Discontinued】

(Unit : mm)



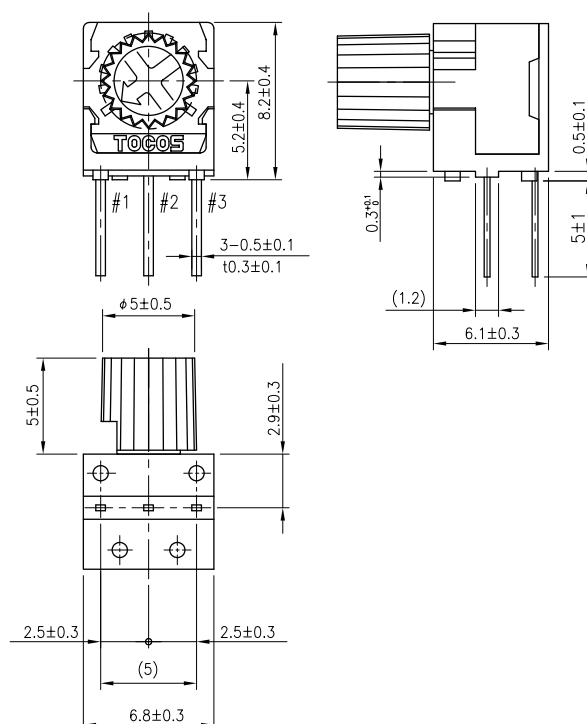
■外形寸法図 OUTLINE DIMENSIONS



GF063VK

【生産中止】【Discontinued】

(Unit : mm)



■梱包仕様

〔テーピングの梱包仕様〕

- テーピングは 1,000 個 / テーピング単位の相包になりますので、1,000 個単位 (1,000 個 2,000 個 3,000 個...) でのご注文をお願い致します。
- テーピングの箱詰めは、『つづら折り (T2)』、『リール (T)』ともに 1 リールごとに化粧箱に梱包致します。

〔ビニール袋の梱包仕様〕

- ビニール袋で、の最小相包は、500 個 / 袋となりますので、500 個単位でのご注文をお願い致します。

■PACKAGING SPECIFICATIONS

[Packaging Specification with Taping]

- The taping specification products have packed in unit of 1,000 pcs./reel. You are requested to place orders in the minimum unit of 1,000 pcs. at least (1,000, 2,000, 3,000 pcs.).
- The taping specification products are packed in parts boxes per reel both for "Reeled parts (T)" and "Ammo pack (T2)"

[Vinyl Bag Specification Packing]

- The minimum packing of vinyl bag is 500 pcs./bag. You are requested to place your orders in the units.