

CERAMIC TRIMMER SMD CAPACITOR

STC6

**1. Applications**

These specifications are applied to Ceramic Trimmer Capacitors with the ceramic dielectric, which are used for the electric and electronic apparatus and communication equipments.

2. Part Number

The part number consists of category, dimension, temperature characteristics and maximum nominal

Capacitance:

$\frac{STC}{(a)} \quad \frac{6}{(b)} \quad \frac{100}{(c)} \quad \frac{R}{(d)}$ (050 is $05 \times 100^0 = 5 \text{ PF}$)

(a) **Category:** Ceramic Trimmer Capacitor

(b) **Outer size:** Plastic casing type :6mm

(c) **Maximum nominal capacitance:** PF unit in 3 digits (The 1st and 2nd figures indicate the significant figures, but the 3rd indicates the number of naught.)

(D) **Adjusting types:** R (Reverse Type) or Blank (Normal Type)

3. Rated voltage: 100VDC

4. Temperature range: -25°C to $+85^{\circ}\text{C}$

5. Test circumstance: Test should be done at 20°C with relative humidity at 65%. However, subjected to special requirement, the ideal range should be within $\pm 5^{\circ}\text{C}$ and humidity from 45°C to 85°C

6. Electrical Characteristic**6.1 Capacitance Drift After Adjustment**

Rotation shall be made for 5 cycles for 180° at a rate of 20 r/mm, a capacitance value difference would be found immediately. Once the shaft is stopped at the position of the maximum capacitance value after 24 hours later. The specification range should be within 5pF, $10\text{pF} \pm 1.5\%$ and $30\text{pF} \pm 2\%$.

6.2 Temperature Characteristics

When measured the capacitance at $1\text{MHz} \pm 10\%$, it reached the heat balance at each temperature changed to $+20^{\circ}\text{C}$ to -25°C with adjusting to 80%~90% of the maximum capacitance, the capacitance change is based on the capacitance at $+20^{\circ}\text{C}$ of 2nF, stage of changing the temperature as above.

6.3 Q (Quality factor)

When measured at 20°C , 0.5V to 5V, 1MHz and maximum capacitance, the Q values are listed in the attached specification.

6.4 Insulation Resistance

When applied 100VDC between terminals for 1 minute at the maximum capacitance, the insulation resistance shall be more than 10,000M.

6.5 Withstanding Voltage

There is no abnormality after applied 220VDC (less than 5mA) for 5 seconds between the terminals.

7. Structure and mechanical characteristics**7.1 Configuration and Dimensions**

Please refer to the attached drawings.

7.2 Strength of Terminals

When applied a power to the terminals to any direction slowly and kept at 0.5 kg for 10 seconds, the terminals shall not be loosen or broken mechanically.

7.3 Torque

The torque test should be done at least for 1 round tuning from 35gf.cm to 100gf.cm for the Normal Type, or 15gf.cm to 100gf.cm for the Reverse Type. Please note that it might cause the torque will decrease against the rotation increase.

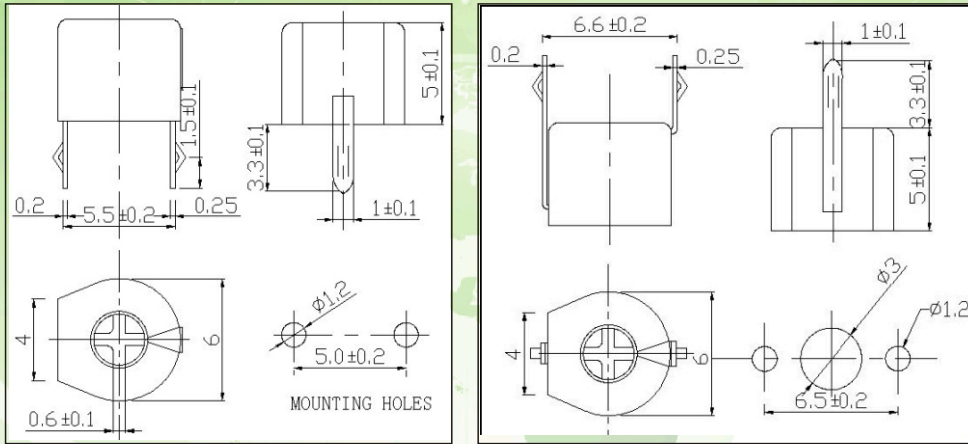
7.4 Solder ability

When dipped the terminals into the soldering pot at $255^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 2 ± 0.5 seconds. There is almost 75% of the total dipped surface are covered with the new solder. (Caution: Keep the soldering conditions as above. If the soldering conditions are not suitable (excessive time, excessive temperature and etc.), its performance will be seriously deviated.

8. Color Code

Please refer to the color code in the attached specifications.

6mm Ceramic Trimmer Capacitors)



Normal Type

Reverse Type

Part No.	Capacitance(pF)			Q(1MHz, Cmax)	Temp.Coeff ppm/°C	Rated Voltage	Withstanding Voltage	Color Code
	Min	Max						
STC6030(R)	1.3max	3	+50%~0%	500 min	NPO ± 200	100Vdc	220Vdc	Blue
STC6050(R)	1.5max	5	+50%~0%		NPO ± 250	100Vdc	220Vdc	Blue
STC6070(R)	2.0max	7	+50%~0%		NPO ± 250	100Vdc	220Vdc	Blue
STC6100(R)	3.0max	10	+50%~0%		N 450 ± 300	100Vdc	220Vdc	White
STC6200(R)	5.0max	20	+50%~0%		N 750 ± 300	100Vdc	220Vdc	Red
STC6300(R)	6.0max	30	+50%~0%		N 1000 ± 500	100Vdc	220Vdc	Green
STC6400(R)	7.0max	40	+50%~0%	300 min	N 1200 ± 500	100Vdc	220Vdc	Yellow
STC6500(R)	10.0max	50	+50%~0%	200 min	N 1200 ± 500	100Vdc	220Vdc	Brown
STC6600(R)	12.0max	60	+50%~0%		N 1200 ± 800	100Vdc	220Vdc	Brown
STC6700(R)	14.0max	70	+50%~0%		N 2200 ± 800	50Vdc	110Vdc	Brown
STC6900(R)	25.0max	90	+50%~0%		N 2200 ± 800	50Vdc	110Vdc	Brown
STC6120(R)	35.0max	120	+50%~0%		N 2200 ± 800	50Vdc	110Vdc	Brown
					N 2200 ± 800	50Vdc	110Vdc	Brown