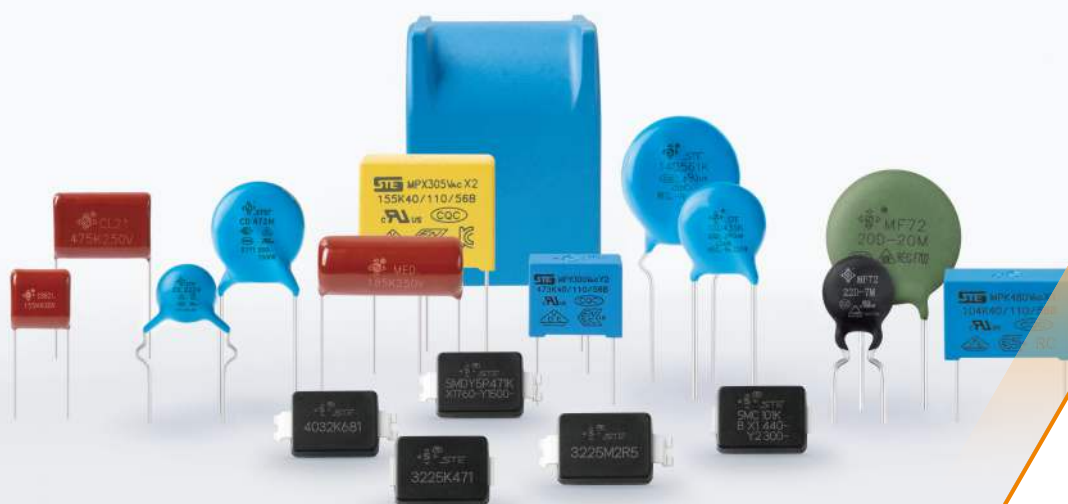




SONGTIAN

High Quality Electronic Safety Components



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SMD Series Products



	Surface-Mount Safety Capacitor SMD-X1Y1 Series 1. Operating Temperature: -40°C~125°C 2. Rated Voltage: X1:760VAC Y1:500VAC, 400VAC, 250VAC 3. Diameter: 3225, 3222, 3022, 4522 4. Capacitance Range:10pF~4700pF	 Surface-Mount safety Capacitor SMC-X1Y2 Series 1. Operating Temperature:-40°C~125°C 2. Rated Voltage: X1: 440VAC Y2:300VAC, 250VAC 3. Diameter: 1815, 2522 4. Capacitance Range: 10pF~4700pF
	Surface-Mount PTC Thermistor SMD- PTC Series 1. Operating Temperature:-40~85°C 2. Diameter: 3225, 4032 3. Resistance Range:10ohm~5000ohm 4. Operating Voltage:260VAC~500VAC	 Surface-Mount NTC Thermistor SMD-NTC Series 1. Operating Temperature:-40°C~175°C 2. Diameter: 3225, 2522, 1815 3. Resistance Range:1.5ohm~200ohm 4. Maximum Steady Current Range: 1.0A~5.0A
	Surface-Mount Varistor SMD-MOV Series 1. Operating Temperature:-40°C~125°C 2. Rated Voltage:201K~821K 3. Diameter:3225, 4032 4. Peak Current Rating:1750A, 3500A	 Surface-Mount Medium and High Voltage Ceramic Capacitors DC Series 1. Operating Temperature:-40°C~105°C 2. Rated Voltage:1KV, 2KV, 3KV 3. Diameter:2522, 1815 4. Capacitors Range:10pF~4700pF

Negative Temperature Coefficient Thermistor



	Negative Temperature Coefficient Thermistor-PS Series (Silicone) 1. Operating Temperature:Φ5: -40°C~155°C Φ7~Φ11: -40°C~175°C Φ13~Φ25: -40°C~200°C 2. Resistance Range:0.5ohm~200ohm 3. Diameter (mm):5D~25D 4. Maximum steady current: 0.5A~20A	 Negative Temperature Coefficient Thermistor-PP Series (Phenolic Resin) 1. Operating Temperature:-40°C~155°C 2. Resistance Range:0.5ohm~200ohm 3. Diameter (mm):5D~25D 4. Maximum steady current: 0.5A~20A
	SMD Type NTC Thermistor 1. Operating Temperature:-55°C~125°C 2. Resistance Range:1~680 Kohm 3. B Value (25/50°C):3500~4250K 4. Resistance Tolerance:±1% 5. Specification:0201, 0402, 0603, 0805	 MF51 Special Series For Electronic Thermometer 1. Operating Temperature:-40°C~100°C 2. Resistance Range:0.2~1000Kohm 3. B Value (25/50°C):3270~4500K 4. Resistance Tolerance:±1%, ±2%, ±3%, ±5%
	MF51 Glass Encapsulated Type Temperature Sensing Series 1. Operating Temperature:-20°C~250°C 2. Resistance Range:2K~1500 Kohm 3. B Value (25/50°C):3450~4450K 4. Resistance Tolerance:±1%, ±2%, ±3%, ±5%	 MF52 Pearl-Shaped Precision Series 1. Operating Temperature:-40°C~150°C 2. Resistance Range:0.1~1000 Kohm 3. B Value (25/50°C):3100~4500K 4. Resistance Tolerance:±1%, ±2%, ±3%, ±5%
	MF58 Glass Encapsulation Temperature Sensing Series 1. Operating Temperature:-55°C~250°C 2. Resistance Range:0.1~3780Kohm 3. B Value (25/50°C):3100~4500K 4. B Value Tolerance:±1%, ±2% 5. Resistance Tolerance:±1%, ±2%, ±3%, ±5%	 MF59 Chip Type Glass Encapsulation Temperature Sensing Series 1. Operating Temperature:-55°C~250°C 2. Resistance Range:1~200Kohm 3. B Value Tolerance:±1%, ±2% 4. Resistance Tolerance:±1%, ±2%, ±3%, ±5%, ±10%
	CWF Precision Series (Temperature Sensor) 1. Operating Temperature:-55°C~+125°C 2. Resistance Range:0.1~1000Kohm 3. B Value (25/50°C):3100~4500K 4. Resistance Tolerance:±1%, ±2%, ±3%, ±5%	 MF11 Compensation Series 1. Operating Temperature:-30°C~125°C 2. Resistance Range:5ohm~1000Kohm 3. B Value (25/50°C):2600~4900K 4. Tolerance:±5%, ±10%, ±15%, ±20%

Metal Oxide Varistor



	Metal Oxide Varistor -S Series (Standard) 1. Operating Temperature: -40°C~105°C 2. Rated Voltage: 18VDC~1200VDC 3. Diameter (mm): 5D~25D 4. Low clamping voltage, fast response speed (NS)	 Metal Oxide Varistor -Z Series (High Energy) 1. Operating Temperature: -40°C~105°C 2. Rated Voltage: 18VDC~1200VDC 3. Diameter (mm): 5D~25D 4. Low clamping voltage, fast response speed (NS) 5. High surge performance
	Metal Oxide Varistor -Q Series (6KV/3KA) 1. Operating Temperature: -40°C~125°C 2. Rated Voltage: 82VDC~1200VDC 3. Low clamping voltage, fast response speed (NS) 4. High surge performance 5. Meet the Annex Q requirements	 Zinc Oxide Varistor -D Series(High Energy) 1. Operating Temperature: -40°C~ 85°C 2. Rated Voltage:200VDC~1800VDC 3. Diameter(mm):32mm~53mm
	Zinc Oxide Varistor -R Series (High Energy) 1. Operating Temperature:-40°C~ 85°C 2. Rated Voltage:200VDC~1800VDC 3. Diameter(mm):10mm~34mm	

Ceramic Capacitor: Interference Suppression Capacitor



Safety Ceramic Capacitor-CY Series(Y1)

1. Operating Temperature: -40°C~125°C
2. Rated Voltage: X1:760VAC
Y1:500VAC, 400VAC, 250VAC
1500VDC
3. Capacitance Range: 100pF~10000pF
4. Capacitance Tolerance: $\pm 10\%$ (K), $\pm 20\%$ (M)
5. Temperature Characteristic: Y5V, Y5U, Y5P



Safety Ceramic Capacitor-CD Series(Y1)

1. Operating Temperature: -40°C~125°C
2. Rated Voltage: X1:500VAC
Y1:500VAC, 400VAC, 250VAC
1500VDC
3. Capacitance Range: 10pF~4700pF
4. Capacitance Tolerance: $\pm 10\%$ (K), $\pm 20\%$ (M)
5. Temperature Characteristic: Y5V, Y5U, Y5P, SL



Safety Ceramic Capacitor-CE Series(Y2)

1. Operating Temperature: -40°C~125°C
2. Rated Voltage: X1:440VAC
Y2:300VAC, 250VAC
1500VDC
3. Capacitance Range: 100pF~10000pF
4. Capacitance Tolerance: $\pm 10\%$ (K), $\pm 20\%$ (M)
5. Temperature Characteristic: Y5V, Y5U, Y5P



High Voltage Ceramic Capacitor-HV/SV Series

1. Operating Temperature: -25°C~85°C
2. Rated Voltage: 500VDC~15KVDC
3. Capacitance Range: 100pF~100000pF
4. Capacitance Tolerance: $\pm 5\%$ (J), $\pm 10\%$ (K), $\pm 20\%$ (M)
5. Temperature Characteristic: N4700/ZM, NP0, SL, Y5P, Y5U, Y5V

Positive Temperature Coefficient Thermistor



Overload Protection MZ11 Series

1. Operating Temperature: -20°C~85°C
2. Diameter(mm): 6~24
3. Resistance Range: 1-500 ohm
4. Operating Voltage: 65VAC~330VAC



OverCurrent Protection MZ13 Series

1. Operating Temperature: -20°C~85°C
2. Diameter(mm): 13~24
3. Resistance Range: 10-1000 ohm
4. Operating Voltage: 260VAC~700VAC



Overload Protection MZB Series

1. Operating Temperature: -20°C~85°C
2. Diameter(mm): 6~22
3. Resistance Range: 8-500 ohm
4. Operating Voltage: 65VAC~330VAC

Film Capacitor: Interference Suppression Capacitor



MPX/X2 Metallized Polypropylene Film Interference Suppression Capacitor

1. Operating Temperature: -40°C~110°C
2. Rated Voltage: 275VAC, 305VAC, 310VAC, 330VAC, 350VAC
3. Capacitance Range: 0.001uF~10.0uF
4. Capacitance Tolerance: $\pm 10\%$ (K)



MPK/X1 Metallized Polypropylene Film Interference Suppression Capacitor

1. Operating Temperature: -40°C~110°C
2. Rated Voltage: 330VAC, 440VAC, 480VAC, 500VAC, 530VAC
3. Capacitance Range: 0.001uF~1.0uF
4. Capacitance Tolerance: $\pm 10\%$ (K), $\pm 20\%$ (M)



MPY/Y2 Metallized Polypropylene Film Interference Suppression Capacitors

1. Operating Temperature: -40°C~110°C
2. Rated Voltage: 250VAC, 275VAC, 300VAC, 350VAC
3. Capacitance Range: 0.001uF~1.2uF
4. Capacitance Tolerance: $\pm 10\%$ (K), $\pm 20\%$ (M)

THB Series-85°C/85%RH Film Capacitor



MPX/X2 - THB 85°C/85%RH Metallized Polypropylene Film Interference Suppression Capacitor

1. Operating Temperature: -40°C~110°C
2. Rated Voltage: 275VAC, 305VAC, 310VAC, 330VAC, 350VAC
3. Capacitance Range: 0.001uF~10.0uF
4. Capacitance Tolerance: $\pm 10\%$ (K)



MPK/X1 - THB 85°C/85%RH Metallized Polypropylene Film Interference Suppression Capacitor

1. Operating Temperature: -40°C~110°C
2. Rated Voltage: 330VAC, 440VAC, 480VAC, 500VAC, 530VAC
3. Capacitance Range: 0.001uF~1.0uF
4. Capacitance Tolerance: $\pm 10\%$ (K), $\pm 20\%$ (M)



MPY/Y2 - THB 85°C/85%RH Metallized Polypropylene Film Interference Suppression Capacitor

1. Operating Temperature: -40°C~110°C
2. Rated Voltage: 250VAC, 275VAC, 300VAC, 350VAC
3. Capacitance Range: 0.001uF~1.2uF
4. Capacitance Tolerance: $\pm 10\%$ (K), $\pm 20\%$ (M)



CBB23B THB 85°C/85%RH Metallized Polypropylene Film Capacitor

1. Operating Temperature: -40°C~110°C
2. Rated Voltage: 250VAC~400VAC(250VDC~1000VDC)
3. Capacitance Range: 0.001uF~10.0uF
4. Capacitance Tolerance: $\pm 5\%$ (J), $\pm 10\%$ (K)



MPB/CBB21B THB 85°C/85%RH Metallized Polypropylene Film Capacitor

1. Operating Temperature: -40°C~110°C
2. Rated Voltage: 125VAC~350VAC(250VDC~1000VDC)
3. Capacitance Range: 0.001uF~4.7uF
4. Capacitance Tolerance: $\pm 5\%$ (J), $\pm 10\%$ (K)

MC3D Metallized polypropylene film DC



MC3D Metallized Polypropylene Film DC-Link Capacitor (Box-type)

1. Operating Temperature: -40°C~105°C
2. Rated Voltage: 500VDC~1200VDC
3. Capacitance Range: 2.0uF~180uF
4. Capacitance Tolerance: $\pm 5\%$ (J), $\pm 10\%$ (K)

MPP Series- Metallized Polypropylene Film Capacitor



MPB/CBB21B Metallized Polypropylene Film Capacitor (Box-Type)

1. Operating Temperature: -40°C~105°C
2. Rated Voltage: 100VDC~630VDC
3. Capacitance Range: 0.01uF~4.7uF
4. Capacitance Tolerance: $\pm 5\%$ (J), $\pm 10\%$ (K)



CBB23B Metallized Polypropylene Film Capacitor (Box-Type)

1. Operating Temperature: -40°C~105°C
2. Rated Voltage: 1000VDC~1600VDC
3. Capacitance Range: 0.001uF~1.0uF
4. Capacitance Tolerance: $\pm 5\%$ (J), $\pm 10\%$ (K)



PPSB/CBB81B High-Voltage Metallized Polypropylene Film Capacitor (Box-Type)

1. Operating temperature: -40°C~105°C
2. Rated Voltage: 1000VDC~2000VDC
3. Capacitance range: 0.01uF~0.047uF
4. Capacitance tolerance: $\pm 5\%$ (J), $\pm 10\%$ (K)



MMKP82/CBB82B Double Sided Metallized Polypropylene Film Capacitor (Box-Type)

1. Operating Temperature: -40°C~105°C
2. Rated Voltage: 630VDC~2000VDC
3. Capacitance Range: 0.01uF~0.1uF
4. Capacitance Tolerance: $\pm 5\%$ (J), $\pm 10\%$ (K)



PPN/CBB13 Non-inductive Polypropylene Film Capacitor (Dipped-Type)

1. Operating Temperature: -40°C~105°C
2. Rated Voltage: 250VDC~1250VDC
3. Capacitance Range: 0.001uF~0.047uF
4. Capacitance Tolerance: $\pm 5\%$ (J), $\pm 10\%$ (K)



MPP/CBB21 Metallized Polypropylene Film Capacitor (Dipped-Type)

1. Operating Temperature: -40°C~105°C
2. Rated Voltage: 100VDC~630VDC
3. Capacitance Range: 0.01uF~10uF
4. Capacitance Tolerance: $\pm 5\%$ (J), $\pm 10\%$ (K)



CBB23 Metallized Polypropylene Film Capacitor (Dipped-Type)

1. Operating Temperature: -40°C~105°C
2. Rated Voltage: 1000VDC~1600VDC
3. Capacitance Range: 0.001uF~1.0uF
4. Capacitance Tolerance: $\pm 5\%$ (J), $\pm 10\%$ (K)



PPS/CBB81 High-Voltage Metallized Polypropylene Film Capacitor (Dipped-Type)

1. Operating Temperature: -40°C~105°C
2. Rated Voltage: 630VDC~2000VDC
3. Capacitance Range: 0.001uF~0.1uF
4. Capacitance Tolerance: $\pm 5\%$ (J), $\pm 10\%$ (K)

MPE Series-Metallized Polyester Film Capacitor



MEB/CL21B Metallized Polyester Film Capacitor

1. Operating Temperature: -40°C~125°C
2. Rated Voltage: 100VDC~630VDC
3. Capacitance Range: 0.01uF~3.3uF
4. Capacitance Tolerance: $\pm 5\%$ (J), $\pm 10\%$ (K)



MEMB/CL23 Miniature Metallized Polyester Film Capacitor (Box-Type)

1. Operating Temperature: -40°C~125°C
2. Rated Voltage: 50VDC~250VDC
3. Capacitance Range: 0.001uF~1.0uF
4. Capacitance Tolerance: $\pm 5\%$ (J), $\pm 10\%$ (K)



MEF/CL21 Metallized Polyester Film Capacitor

1. Operating Temperature: -40°C~125°C
2. Rated Voltage: 100VDC~630VDC
3. Capacitance Range: 0.01uF~10uF
4. Capacitance Tolerance: $\pm 5\%$ (J), $\pm 10\%$ (K)



MEF/CL21X Miniature Metallized Polyester Film Capacitor

1. Operating Temperature: -40°C~125°C
2. Rated Voltage: 50VDC~250VDC
3. Capacitance Range: 0.01uF~1.0uF
4. Capacitance Tolerance: $\pm 5\%$ (J), $\pm 10\%$ (K)

Automotive Series Products

AEC-Q200 - Rev E
March 20, 2023



Safety Ceramic Capacitor-CY Series (Y1-500VAC Automotive series)

1. Operating Temperature: -40°C~125°C
2. Rated Voltage: X1:760VAC
Y1:500VAC, 400VAC, 250VAC
1500VDC
3. Capacitance Range: 100pF~10000pF
4. Capacitance Tolerance: $\pm 10\%$ (K), $\pm 20\%$ (M)
5. Temperature Characteristic: Y5V, Y5U, Y5P
6. AEC-Q200 qualified



Safety Ceramic Capacitor-CE Series (Y2-300VAC Automotive Series)

1. Operating Temperature: -40°C~125°C
2. Rated Voltage: X1:440VAC
Y2:300VAC, 250VAC
1500VDC
3. Capacitance Range: 100pF~10000pF
4. Capacitance Tolerance: $\pm 10\%$ (K), $\pm 20\%$ (M)
5. Temperature Characteristic: Y5V, Y5U, Y5P
6. AEC-Q200 qualified



MPK/X2 Metallized Polypropylene Film Interference Suppression Capacitor (MPK/X2 Automotive series)

1. Operating Temperature: -40°C~110°C
2. Rated Voltage: 275VAC, 305VAC, 310VAC, 330VAC, 350VAC
3. Capacitance Range: 0.001uF~10.0uF
4. Capacitance Tolerance: $\pm 10\%$ (K)
5. AEC-Q200 qualified



MPK/X1 Metallized Polypropylene Film interference Suppression Capacitors (MPK/X1 Automotive Series)

1. Operating Temperature: -40°C~110°C
2. Rated Voltage: 330VAC, 440VAC, 480VAC, 500VAC, 530VAC
3. Capacitance Range: 0.001uF~1.0uF
4. Capacitance Tolerance: $\pm 10\%$ (K), $\pm 20\%$ (M)
5. AEC-Q200 qualified



MPY/Y2 Metallized Polypropylene Film Interference Suppression Capacitors (MPY/Y2 Automotive Series)

1. Operating Temperature: -40°C~110°C
2. Rated Voltage: 250VAC, 275VAC, 300VAC, 350VAC
3. Capacitance Range: 0.001uF~1.2uF
4. Capacitance Tolerance: $\pm 10\%$ (K), $\pm 20\%$ (M)
5. AEC-Q200 qualified



Metal Oxide Varistor-Automotive Series(6KV/3KA)

1. Operating Temperature: -40°C~125°C
2. Rated Voltage: 82VDC~1200VDC
3. Low clamping voltage, fast response speed (NS)
4. High surge performance
5. Meet the Annex Q requirements
6. AEC-Q200 qualified

High Quality Electronic Safety Components



► Company Profile

Songtian Electronics (STE), established in 2012, specializes in manufacturing ceramic capacitors, film capacitors, metal oxide varistors and NTC thermistors. As a privately-owned scientific and technological company in Guangdong Province, we are well known as a state-level high-tech enterprise, Top 100 companies in China for electronic components. Our company logo was appraised as famous logo in Guangdong province. STE designs and manufactures in our factory located in the Songtian Technology Park with over 70,000 square meters of manufacturing space.

30+	70000+	60+	10 Billion	5	3
Year Establish	Square Meters Production Area	Patents	Productivity	Certificate Authority	2 UL Approved Lab 1 CB Approved Lab



► Company Philosophy

Mission:

Provide highly reliable safety components and professional service to our customers through leading technology, continuous innovation and open cooperation.

Vision:

Create a leading electronic component brand in the world.

▶ UL Approved Laboratory

UL is short for Underwriters Laboratories Inc. As a global company with more than 20 years of expertise, UL is the leading institution for safety testing in the world. UL has made great contributions to helping companies improve the management, quality and reliability of products. Today, UL is one of the most qualified evaluators of manufacturers and a symbol of safe designs.

Since 2013, UL launched Data Acceptance Program (DAP) and started to approve the test data generated from approved company. UL's DAP not only provides great convenience for company, but also shows great trust in the quality of the products coming from the company in the DAP.

Our laboratory was identified by UL in 2013 and 2014, became recognized for UL1449 (varistor) and UL60384-14 (safety capacitor) Witness Testing Data Program (WTDP). Our safety capacitor lab was also approved as IEC-CB laboratory in 2018.

STE's lab has advanced test equipment which can offer professional and precise test data for electronic components, including solderability, soldering heat resistance, humidity testing, steady heat, durability, thermal shock, flame resistance, etc.



▶ Product Application

