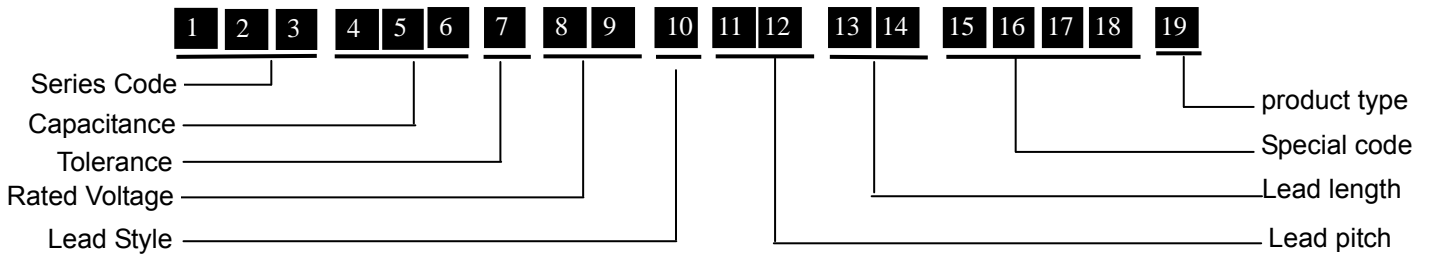


TYPE : MPX-T SPECIFICATION

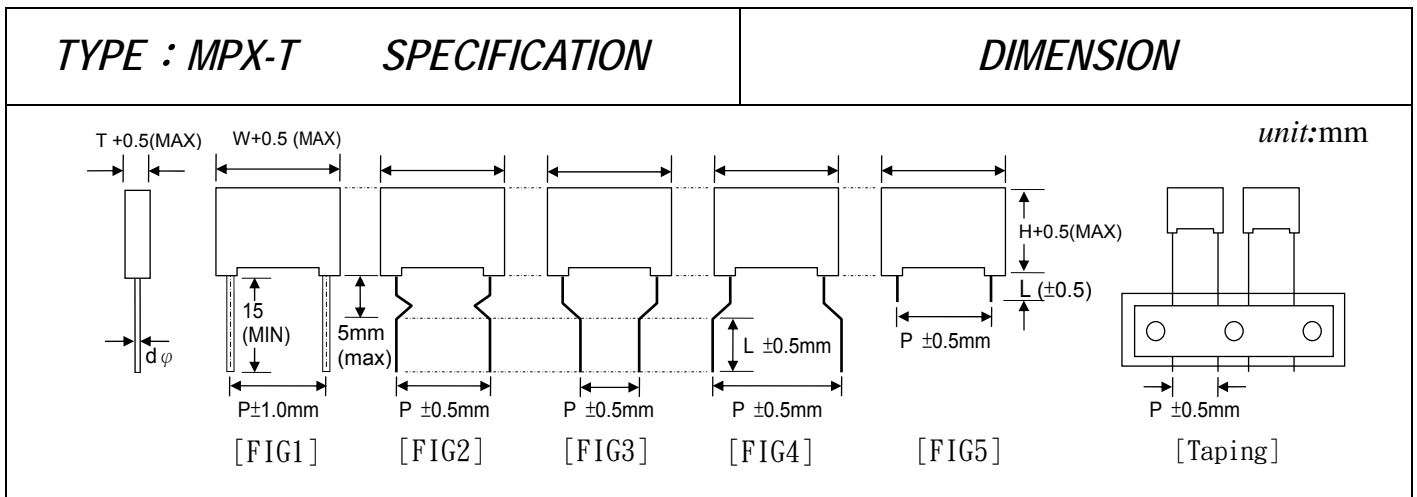
Part Numbering System



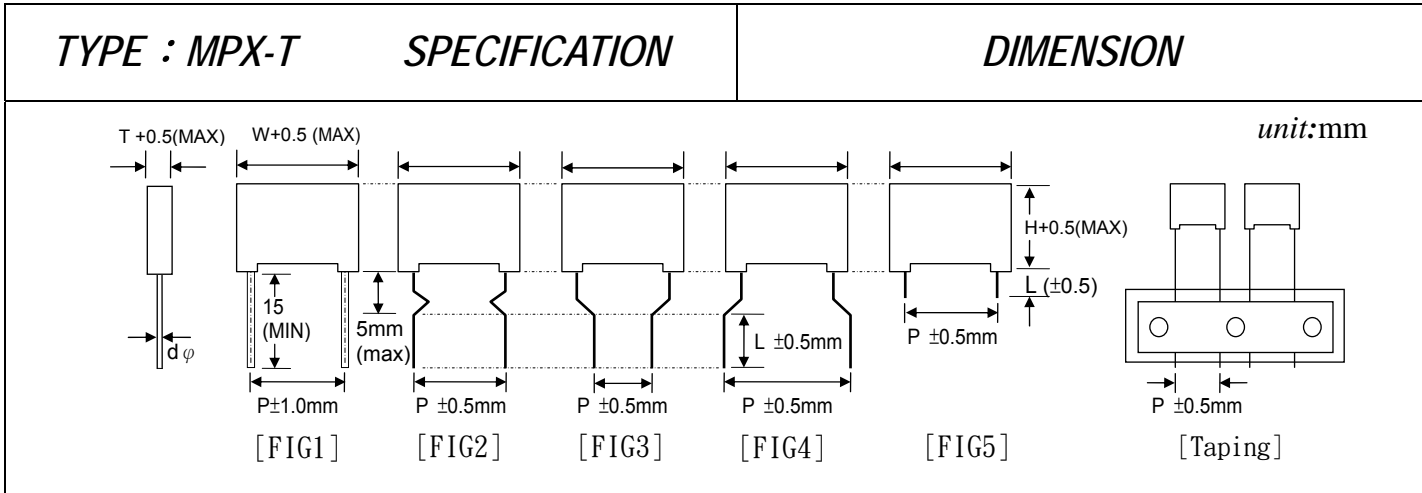
| | | | | | | | | | | | | | | | |
|---|---|-------------------------------------|------|------|--------------------------|------|------|---------------------------|-------|------|--------------------------|------|--------------------------|--|------|
| Digit 1-3 | Type | MPX | | | | | | | | | | | | | |
| Digit 4-6 | Digit 4-5 indicate the first two figures of the capacitance value and the 6th digit indicate the number of zero added to obtain the rated capacitance in pF. EX. 102=1000pF=1nF=0.001 μF | | | | | | | | | | | | | | |
| Digit 7 | Code | F | | | G | | | H | | | J | | K | | M |
| | Tolerance | ±1% | | | ±2% | | | ±3% | | | ±5% | | ±10% | | ±20% |
| Digit 8-9 | | A | B | C | D | E | F | G | H | J | K | L | M | | |
| | 1 | | | | 20 | | | | 50 | 63 | | | 1100 | | |
| | 2 | 100 | 125 | 160 | 200 | 250 | 315 | 400 | 500 | 630 | 800 | 120 | | | |
| | 3 | 1000 | 1250 | 1600 | 2000 | 2500 | 3150 | 4000 | 5000 | 6300 | 8000 | 1200 | 1400 | | |
| | | N | P | Q | R | S | T | U | V | W | X | Y | | | |
| | 1 | 15 | 240 | 300 | 330 | 440 | 540 | 600 | 700 | 850 | 900 | | | | |
| | 2 | 150 | 275 | 305 | 350 | 450 | 520 | | 760 | 1800 | | | | | |
| 3 | 1500 | 280 | 310 | | 480 | | | | | | | 3000 | | | |
| Letter and then number indicate AC, but number and then Letter indicate DC. EX. 2A=100VDC A2=100VAC | | | | | | | | | | | | | | | |
| Digit 10 | Code | A | | | B | | | C | | | D | | X | | |
| | Lead style | Straight lead | | | Kink-Cutted | | | Inward forming | | | outward forming | | straight lead Cutted | | |
| | Code | E | | | S | | | T | | | F | | G | | |
| | Lead style | Taping (Ammo) (直脚 TP, P0=12.7mm) | | | Kink-Cutted (special) | | | Taping (Ammo) (同等彎 TP) | | | Taping (Ammo) (內彎 TP) | | Taping (Ammo) (外彎 TP) | | |
| Digit 11-12 | Code | P2 | P3 | P4 | P5 | P6 | P8 | P9 | PA | PB | PC | PD | PE | | |
| | Pitch | 3.5 | 4.0 | 4.5 | 5.0 | 6.0 | 7.0 | 7.5 | 8.0 | 9.0 | 10. | 31.0 | 15.0 | | |
| | Code | PF | PG | PH | PJ | PK | PL | PM | PN | PP | PQ | PR | PS | | |
| | Pitch | 20.0 | 21.0 | 22.0 | 22.5 | 28.5 | 52.5 | 27.5 | 30.0 | 32.5 | 41. | 12.5 | 17.5 | | |
| | Pitch | 51.0 | 27.0 | 37.5 | 25.0 | 12.0 | 35.0 | 16.0 | Axial | | | | | | |
| Digit 13-14 | Code | L1* | L2 | L3 | L4 | L5 | L6 | L7* | L8 | L9 | LA | LB | LC | | |
| | Length | 15.0 | 3.5 | 4.0 | 4.5 | 10.0 | 15.0 | 20.0 | TP | 2.7 | 8.0 | 5.0 | 6.0 | | |
| | Code | LD* | LE | LF | LG | LH | LJ* | LK | LL | LM | LN | LP | LQ* | | |
| | Length | 26.0 | 7.5 | 5.5 | 12.0 | 7.0 | 25.0 | 13.0 | 6.5 | 3.0 | 9.0 | 2.5 | 17.0 | | |
| | Code | LR | LS* | LU* | LW* | LX | LY* | LZ* | LV | L0* | LT* | VL* | | | |
| | Length | 3.8 | 24.0 | 27.0 | 40.0 | 16.0 | 30.0 | 32.0 | 3.2 | Axia | 22 | 33 | | | |

Notes: * Straight, length is minimum

| | | | | | | |
|-------------|--|---|-----|--|-----|------------------------------------|
| Digit 15-16 | Cod | Explanation | Cod | Explanation | Cod | Explanation |
| | HB | HF, Surge Test | CH | The different color, The different size (H) | EE | Low ESR |
| | EA | Low noise, The different color | ZT | The different color, The different size (T) & wire 0.6mm | ED | Low ESR. The different size (H) |
| | CT | The different color, The different size (T) | | | | |
| Digit 17-18 | Special Number. | | | | | |
| Digit 19 | “#” T: Test conditions: Humidity: 85% RH Temperature: 85°C TV: 240VAC Duration: 1000H | | | | | |

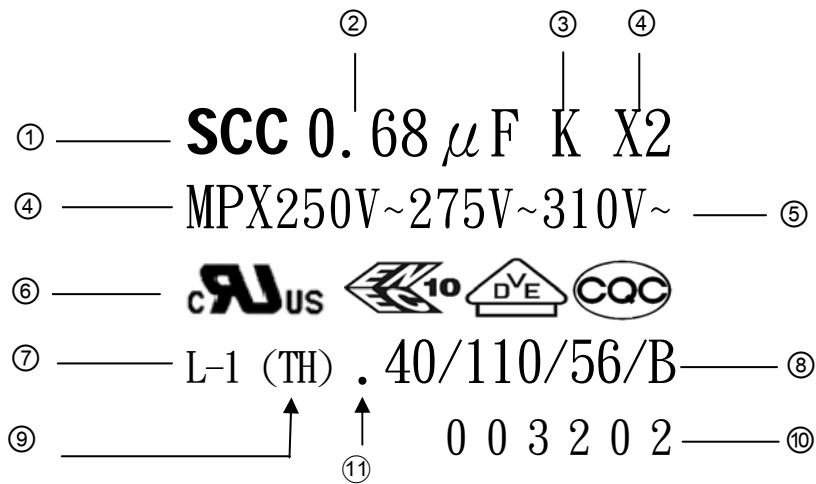


| CAP. (μF) | VOLT. (VAC) | TOL. $\pm\%$ | DIMENSION <i>unit:mm</i> | | | | | SCC P/N |
|---------------------|----------------|-----------------|--------------------------|----------|----------|----------|-------------------------|---------------------|
| | | | <i>W</i> | <i>H</i> | <i>T</i> | <i>P</i> | <i>dφ</i> ± 0.05 | |
| 0.1 | 310 | 10 | 18.0 | 11.0 | 5.0 | 15.0 | 0.6 | MPX104KQ3*PE**ZT03T |
| 0.15 | 310 | 10 | 18.0 | 12.0 | 6.0 | 15.0 | 0.6 | MPX154KQ3*PE**ZT05T |
| 0.22 | 310 | 10 | 18.0 | 13.5 | 7.5 | 15.0 | 0.6 | MPX224KQ3*PE**ZT09T |
| 0.27 | 310 | 10 | 18.0 | 14.5 | 8.5 | 15.0 | 0.8 | MPX274KQ3*PE**CT12T |
| 0.33 | 310 | 10 | 18.0 | 15.0 | 9.0 | 15.0 | 0.8 | MPX334KQ3*PE**CT14T |
| 0.39 | 310 | 10 | 18.0 | 16.0 | 10.0 | 15.0 | 0.8 | MPX394KQ3*PE**CT16T |
| 0.47 | 310 | 10 | 18.0 | 17.5 | 10.0 | 15.0 | 0.8 | MPX474KQ3*PE**CH12T |
| 0.56 | 310 | 10 | 18.0 | 18.5 | 11.0 | 15.0 | 0.8 | MPX564KQ3*PE**CT18T |
| 0.68 | 310 | 10 | 18.0 | 21.0 | 12.0 | 15.0 | 0.8 | MPX684KQ3*PE**CT23T |
| 0.47 | 310 | 10 | 26.5 | 16.5 | 7.5 | 22.5 | 0.8 | MPX474KQ3*PJ**CT09T |
| 0.56 | 310 | 10 | 26.5 | 17.0 | 8.0 | 22.5 | 0.8 | MPX564KQ3*PJ**CT11T |
| 0.68 | 310 | 10 | 26.5 | 18.5 | 8.5 | 22.5 | 0.8 | MPX684KQ3*PJ**CT12T |
| 0.82 | 310 | 10 | 26.5 | 19.0 | 10.0 | 22.5 | 0.8 | MPX824KQ3*PJ**CT16T |
| 1.0 | 310 | 10 | 26.5 | 20.0 | 11.0 | 22.5 | 0.8 | MPX105KQ3*PJ**CT18T |
| 1.2 | 310 | 10 | 26.5 | 21.5 | 12.0 | 22.5 | 0.8 | MPX125KQ3*PJ**CT23T |
| 1.5 | 310 | 10 | 26.5 | 24.0 | 13.5 | 22.5 | 0.8 | MPX155KQ3*PJ**CT21T |
| 1.8 | 310 | 10 | 26.5 | 25.0 | 15.0 | 22.5 | 0.8 | MPX185KQ3*PJ**CT36T |
| 2.2 | 310 | 10 | 26.5 | 25.0 | 16.5 | 22.5 | 0.8 | MPX225KQ3*PJ**CT50T |
| 1.0 | 310 | 10 | 32.0 | 18.5 | 10.0 | 27.5 | 0.8 | MPX105KQ3*PM**CT16T |
| 1.2 | 310 | 10 | 32.0 | 20.0 | 11.0 | 27.5 | 0.8 | MPX125KQ3*PM**CT18T |
| 1.5 | 310 | 10 | 32.0 | 22.0 | 13.0 | 27.5 | 0.8 | MPX155KQ3*PM**CT20T |
| 1.8 | 310 | 10 | 32.0 | 22.0 | 13.0 | 27.5 | 0.8 | MPX185KQ3*PJ**CT20T |
| 2.2 | 310 | 10 | 32.0 | 25.0 | 14.0 | 27.5 | 0.8 | MPX225KQ3*PM**CH35T |
| 2.7 | 310 | 10 | 32.0 | 25.5 | 16.0 | 27.5 | 0.8 | MPX275KQ3*PM**CT32T |
| 3.3 | 310 | 10 | 32.0 | 30.0 | 18.0 | 27.5 | 0.8 | MPX335KQ3*PM**CH21T |



| CAP. (<i>μF</i>) | VOLT. (<i>VAC</i>) | TOL. ±% | DIMENSION <i>unit:mm</i> | | | | | SCC <i>P/N</i> |
|-----------------------|-------------------------|------------|--------------------------|----------|----------|----------|---------------------|---------------------|
| | | | <i>W</i> | <i>H</i> | <i>T</i> | <i>P</i> | <i>d φ</i> ±0.05 | |
| 3.9 | 310 | 10 | 32.0 | 30.5 | 20.0 | 27.5 | 0.8 | MPX395KQ3*PM**CT38T |
| 4.7 | 310 | 10 | 32.0 | 31.0 | 22.0 | 27.5 | 0.8 | MPX475KQ3*PM**CT45T |
| 3.3 | 310 | 10 | 42.5 | 26.0 | 14.5 | 37.5 | 1.0 | MPX335KQ3*PV**CT49T |
| 3.9 | 310 | 10 | 42.5 | 28.5 | 16.0 | 37.5 | 1.0 | MPX395KQ3*PV**CT32T |
| 4.7 | 310 | 10 | 42.5 | 30.0 | 17.0 | 37.5 | 1.0 | MPX475KQ3*PV**CT40T |
| 5.6 | 310 | 10 | 42.5 | 31.5 | 18.5 | 37.5 | 1.0 | MPX565KQ3*PV**CT37T |
| 6.8 | 310 | 10 | 42.5 | 36.0 | 19.0 | 37.5 | 1.0 | MPX685KQ3*PV**CT52T |
| 8.2 | 310 | 10 | 42.5 | 37.0 | 22.0 | 37.5 | 1.0 | MPX825KQ3*PV**CT45T |
| 10.0 | 310 | 10 | 42.5 | 37.0 | 28.0 | 37.5 | 1.0 | MPX106KQ3*PV**CT62T |
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Marking



- ① Company Logo: SCC
- ② Rated Capacitance
- ③ Capacitance Tolerance
- ④ Part Name
- ⑤ Rated Voltage
- ⑥ Safety Standard Approval Logo
- ⑦ Date Code: Year- Month

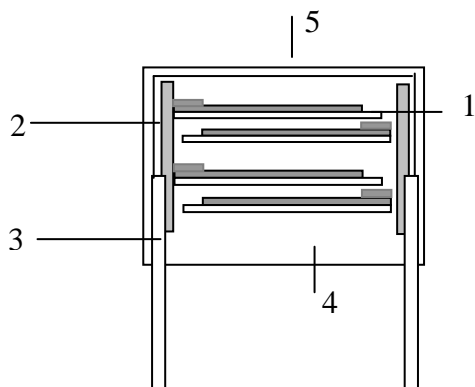
| Year | Code | Year | Code |
|-----------|------|-----------|------|
| 2008/2020 | A | 2014/2026 | G |
| 2009/2021 | B | 2015/2027 | H |
| 2010/2022 | C | 2016/2028 | J |
| 2011/2023 | D | 2017/2029 | K |
| 2012/2024 | E | 2018/2030 | L |
| 2013/2025 | F | 2019/2031 | M |

| Month | Code | Month | Code |
|-------|------|-------|------|
| 1 | 1 | 7 | 7 |
| 2 | 2 | 8 | 8 |
| 3 | 3 | 9 | 9 |
| 4 | 4 | 10 | 0 |
| 5 | 5 | 11 | N |
| 6 | 6 | 12 | S |

- ⑧ Operating temperature:-40~+110°C Experiment for 56days.
Flame retardant grade B
- ⑨ Internal use
- ⑩ Production batch number
- ⑪ Manufacturer code : “·” : Huizhou SCC “:” : HuaiAn SCC

年份周期 12 年一個輪迴, 如 CODE:A, 代表:2008 年, 2020 年, 2032 年, 2044 年...
CODE:B, 代表:2009 年, 2021 年, 2033 年, 2045 年...

Construction



- 1. Metallized polypropylene film(ZN/AL)
- 2. Metal spray(Zn+ Tin/Zn)
- 3. Lead wire
- 4. Epoxy resin coating(UL94V-0、B)
- 5. Case-PBT(UL94V-0、B)

| TYPE : MPX-T | | SPECIFICATION | | ELECTRICAL CHARACTERISTICS | |
|--------------|---|--|--|---|--------------------------|
| No | 項目 Item | 性能 Performance | 條件 Test Conditions | 參考標準 Reference Standard | |
| 1 | 使用溫度範圍 Operating Temperature Range | -40°C ~ +110°C | | IEC 60384-14 2.1.1 | |
| 2 | 額定電壓 Rated Voltage | 310VAC (50/60Hz) 630VDC(Max) | | IEC 60384-14 2.2.3 | |
| 3 | 耐電壓 Withstand Voltage | 端子間 Between Terminals | 無 Short 現象. | VR x430% (VDC) 60 sec, Charge and Discharge current shall not exceed 10 mA, | IEC 60384-14 4.2.1 |
| | | 端子外裝間 Between Terminals & Enclosure | | 2120 VAC 1 min | |
| 4 | 絕緣阻抗 Insulation Resistance | $C \leq 0.33\mu F: 15,000M\Omega \text{ min}$ $C > 0.33\mu F: 5,000M\Omega * \mu F \text{ min}$ | Charge time: 60 ±5sec. Charge voltage: 100VDC Test Temp: 20°C | IEC 60384-14 4.2.5 | |
| 5 | 靜電容量 Capacitance | 於指定範圍內 Within specified tolerance | at 1 KHz ±10% Measure voltage at 1 Vrms Test temp: 20°C | IEC 60384-14 4.2.2 | |
| 6 | 散逸因數 Dissipation Factor | 0.1 %max at 1KHz | Measure voltage at 1 Vrms Test temp: 20°C | IEC 60384-14 4.2.3 | |
| 7 | 端子強度 Terminal Strength | 抗拉強度 Pull Strength | 端子不鬆斷 No cutting or slack of terminals | Wire diameter: 0.6&0.8mm Load: 1 kg, time: 10 sec. Wire diameter: 1.0 mm Load: 2 kg, time: 20 sec. | IEC 60384-14 4.3 |
| | | 扭轉強度 Bending Strength | | Wire diameter:0.6&0.8 mm 1.0&1.2 mm 90° x 4 time | |
| 8 | 焊錫附著性 Solder ability | 導線浸入後的表面至少需附著 95%的新焊錫 At least 95% of the surface of the lead wire dipped into is covered with new solder. | Solder temp: 245°C ±5°C Immersion time: 2±0.5sec. Solder: SnAgCu (Sn:96.5% Ag:3% Cu:0.5%) | IEC 60384-14 4.5 | |
| 9 | 焊錫耐熱性 Resistance to Soldering heat | 外觀 Appearance | 無明顯異常 No abnormality on appearance | Solder temp: 265 ±5°C Immersion time: 10±0.5sec. | IEC 60384-14 4.4 |
| | | 耐電壓 Withstand Voltage | 依項目3 Comply with item 3 | | |
| | | 靜電容量變化率 Capacitance Change | $\Delta C/C \leq \pm 3\%$ Within ±3% | | |
| | | 散逸因數 Dissipation Factor | 於項目6範圍以內 Within spec of item 6 above. | | |
| | | 絕緣阻抗 Insulation Resistance | Same as the spec of item 5 above | | |

| TYPE : MPX-T SPECIFICATION | | ELECTRICAL CHARACTERISTICS | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---------------------------|------|------|---|---------------------------|---------------|---|---------------------------|----------|---|----------------------------|---------------|---|---------------------------|----------|------------------------|
| No | 項目 Item | 性能 Performance | 條件 Test Conditions | 參考標準 Reference Standard | | | | | | | | | | | | | | | | |
| 10 | 耐震性 Vibration Proof | 無明顯異常 No abnormality of the appearance | Frequency range 10-55-10-55 Hz Amplitude: 0.75 mm, 2 hrs/direction for 3 directions | IEC 60384-14 4.7 | | | | | | | | | | | | | | | | |
| 11 | 充放電 Charging and discharging | 靜電容量變化率 Capacitance Change | $\Delta C/C \leq \pm 5\%$ (relative to the initial value) | Times: 10 000 Duration of charging: 0.5s Duration of discharging : 0.5s Charging voltage: rated voltage Charging resistance: 220/CR(Ω) Discharging resistance: R=10/ CR(Ω) or 20 (whichever is the greater) CR: rated capacitance (μ F) | IEC 60384-14 4.15 | | | | | | | | | | | | | | | |
| | | 散逸因數變化量 Dissipation Factor Change | Increase of: $\Delta DF \leq 0.5\%$ (1KHz) | | | | | | | | | | | | | | | | | |
| | | 絕緣阻抗 Insulation Resistance | IR: $\geq 50\%$ of rated value | | | | | | | | | | | | | | | | | |
| 12 | 耐寒性 Cold Resistance | 靜電容量變化率 Capacitance Change | $\Delta C/C \leq \pm 5\%$ Within $\pm 5\%$ | Temperature: $-40 \pm 2^\circ\text{C}$ Duration: 96 \pm 4 hrs | IEC 60384-14 4.11.4 | | | | | | | | | | | | | | | |
| 13 | 耐熱性 Dry Heat Resistance | 絕緣阻抗 Insulation Resistance | 50% of minimum specified value | Temperature: $+110 \pm 2^\circ\text{C}$ Duration: 96 \pm 4 hrs | IEC 60384-14 4.11.2 | | | | | | | | | | | | | | | |
| | | 靜電容量變化率 Capacitance Change | $\Delta C/C \leq \pm 5\%$ Within $\pm 5\%$ | | | | | | | | | | | | | | | | | |
| 14 | 溫度循環 Temperature Cycle | 外觀 Appearance | 無明顯異常 No abnormality on appearance | Total: 5 cycle <table border="1"> <thead> <tr> <th>Step</th> <th>Temp</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>$-40 \pm 2^\circ\text{C}$</td> <td>30 \pm 1min</td> </tr> <tr> <td>2</td> <td>$+25 \pm 2^\circ\text{C}$</td> <td>3min max</td> </tr> <tr> <td>3</td> <td>$+110 \pm 2^\circ\text{C}$</td> <td>30 \pm 1min</td> </tr> <tr> <td>4</td> <td>$+25 \pm 2^\circ\text{C}$</td> <td>3min max</td> </tr> </tbody> </table> | Step | Temp | Time | 1 | $-40 \pm 2^\circ\text{C}$ | 30 \pm 1min | 2 | $+25 \pm 2^\circ\text{C}$ | 3min max | 3 | $+110 \pm 2^\circ\text{C}$ | 30 \pm 1min | 4 | $+25 \pm 2^\circ\text{C}$ | 3min max | IEC 60384-14 4.6 |
| | | Step | Temp | | Time | | | | | | | | | | | | | | | |
| | | 1 | $-40 \pm 2^\circ\text{C}$ | | 30 \pm 1min | | | | | | | | | | | | | | | |
| | | 2 | $+25 \pm 2^\circ\text{C}$ | | 3min max | | | | | | | | | | | | | | | |
| 3 | $+110 \pm 2^\circ\text{C}$ | 30 \pm 1min | | | | | | | | | | | | | | | | | | |
| 4 | $+25 \pm 2^\circ\text{C}$ | 3min max | | | | | | | | | | | | | | | | | | |
| 耐電壓 Withstand Voltage | 依項目 3 Comply with item 3 | | | | | | | | | | | | | | | | | | | |
| 絕緣阻抗 Insulation Resistance | 50% of minimum specified value | | | | | | | | | | | | | | | | | | | |
| 靜電容量變化率 Capacitance Change | $\Delta C/C \leq \pm 5\%$ Within $\pm 5\%$ | | | | | | | | | | | | | | | | | | | |
| 15 | 穩態濕熱試驗 Damp heat , Steady state | 外觀 Appearance | 無明顯異常 No abnormality on appearance | Humidity: 90~95% RH Temperature: $+40 \pm 2^\circ\text{C}$ Duration: 56 Days +48/-0hrs Measure after exposing at normal state for 1.5 \pm 0.5hrs. | IEC 60384-14 4.12 | | | | | | | | | | | | | | | |
| | | 耐電壓 Withstand Voltage | 依項目 3 Comply with item 3 | | | | | | | | | | | | | | | | | |
| | | 絕緣阻抗 Insulation Resistance | 50% of minimum specified value | | | | | | | | | | | | | | | | | |
| | | 靜電容量變化率 Capacitance Change | $\Delta C/C \leq \pm 5\%$ Within $\pm 5\%$ | | | | | | | | | | | | | | | | | |
| | | 散逸因數變化量 Dissipation Factor Change | $\Delta DF \leq 0.8\%$ at 10KHz, C \leq 1.0 μ F $\Delta DF \leq 0.5\%$ at 1KHz ,C >1.0 μ F (20 $^\circ\text{C}$) | | | | | | | | | | | | | | | | | |

| TYPE : MPX-T SPECIFICATION | | ELECTRICAL CHARACTERISTICS | | | |
|----------------------------|--------------------------------------|---|--|--|-------------------|
| No | 項目 Item | 性能 Performance | 條件 Test Conditions | 參考標準 Reference Standard | |
| 16 | 阻燃性測試 Flammability test | 1.每次火焰燃燒后每一試片的燃燒秒數不可超過 10S. Maximum flaming time per specimen per flame application:10 sec. 2.五個試片,兩次火焰燃燒的試片總燃燒秒數不能超過 50S. Maximum total flaming time ,5 specimens,2 ignitions: 50 sec. 3.每一試片最長的燃燒秒數不能超過 30S. Maximum after glow time, Per specimen: 30sec. | 1.試樣數目:5PCS, Number of specimens : 5pcs 2.火焰燃燒次數:2 Number of ignitions: 2 3.火焰不可燃燒到被夾子固定之上端. Combustion flame cannot be fixed to the upper end of the clip. | UL94 | |
| 17 | 高溫/高濕/ 負荷測試 Humidity Bias Test | 外觀 Appearance | 無明顯異常 No abnormality on appearance | Humidity: 85%±2 RH Temperature: 85±2°C Duration: 1000±24hrs Applied Voltage 240 VAC Measure after exposing at normal state for 4 hrs | IEC 60384-14 |
| | | 靜電容量變化率 Capacitance Change | $\Delta C/C \leq \pm 10\%$ Within $\pm 10\%$ | | |
| 18 | 高溫負荷 Endurance Test | 外觀 Appearance | 無明顯異常 No abnormality on appearance | Temperature: +110 ±2°C Duration:1,000 +48/-0 hrs Applied Voltage 125% x V _R through series resistor of 47Ω±5% to the Capacitor Measure after exposing at normal state for 4 hrs. | IEC 60384-14 4.14 |
| | | 耐電壓 Withstand Voltage | 依項目 3 Comply with item 3 | | |
| | | 絕緣阻抗 Insulation Resistance | 50% of minimum specified value | | |
| | | 靜電容量變化率 Capacitance Change | $\Delta C/C \leq \pm 10\%$ Within $\pm 10\%$ | | |
| | | 散逸因數變化量 Dissipation Factor Change | $\Delta DF \leq 0.8\%$ at 10KHz, C ≤ 1.0μF $\Delta DF \leq 0.5\%$ at 1KHz, C > 1.0μF (20°C) | | |

1. This capacitor is limited to $\leq 310VAC$ (Frequency $\leq 100Hz$) or $\leq 630VDC$.

此系列電容器只限用於 $\leq 310VAC$ (頻率 $\leq 100Hz$) 或 $\leq 630VDC$.

2. 電容儲存條件: 溫度: +5 ~ +35°C 濕度: $\leq 75\% RH$

電容儲存時間: 依周期計算有效期: 兩年. (超出兩年產品電氣特性需重新選別及檢查產品外觀)

STRONG COMPONENTS CO.,LTD