



# 久亦電子有限公司

JOEY ELECTRONICS CO., LTD.

## 塑膠薄膜電容器規格承認書

SPECIFICATION OF PLASTIC FILM CAPACITOR FOR APPROVAL

立创商城

客 戶 名 稱 : 深 圳 市 立 创 电 子 商 务 有 限 公 司  
( Customer )  
項 目 : X2 系 列  
( Item )  
客 戶 料 號 :  
( Customer Part No )  
久 亦 料 號 :  
( Joey Parts No )  
送 樣 日 期 :  
( Date )  
備 注 :  
( Remark )

CUSTOMER APPROVAL 廠商認可

請確認後簽回，若不簽回，視同默認。

PLEASE SIGNATURE AFTER CHECKING , NO SIGNATURE IS EQUAL PRETERMIT.

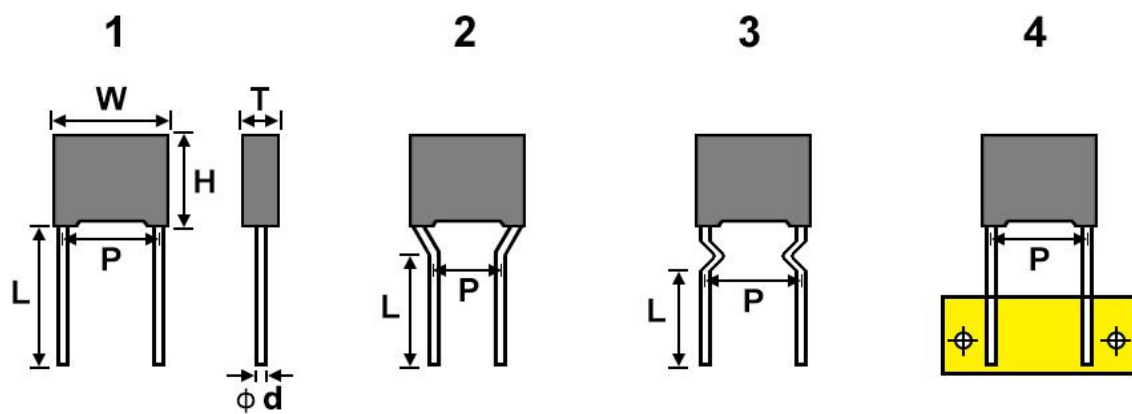
承認章 ( Approved By )

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| 承認章 ( Approved By ) |
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Unit : mm

| 立創編號     | 久亦料號               | 規格           | W    | H    | T   | d $\phi$   | P    | FIG | 備注         |
|----------|--------------------|--------------|------|------|-----|------------|------|-----|------------|
|          |                    |              | max  | max  | max | $\pm 0.05$ |      | 1   |            |
| C4355278 | XX2102KA24AA415MA1 | X2102K275VAC | 13   | 9    | 4   | 0.6        | 10   | 1   | 10AA10     |
| C4355279 | XX2103KA23AA315MA1 | X2103K275VAC | 10   | 9    | 4   | 0.6        | 7.5  | 1   | 7.5AA7.5   |
| C4355280 | XX2104KA23AA315MA1 | X2104K275VAC | 10   | 12   | 6   | 0.6        | 7.5  | 1   | 7.5AA7.5   |
| C4355281 | XX2104KA24AA415MA1 | X2104K275VAC | 13   | 12   | 6   | 0.6        | 10   | 1   | 10AA10     |
| C4355282 | XX2104KA24AA415MA2 | X2104K275VAC | 13   | 12   | 6   | 0.6        | 10   | 1   | 10AA10     |
| C4355283 | XX2104KA26AA625MA1 | X2104K275VAC | 18   | 12   | 6   | 0.6        | 15   | 1   | 15AA15     |
| C4355284 | XX2104KA26AA615MA1 | X2104K275VAC | 18   | 12   | 6   | 0.6        | 15   | 1   | 15AA15     |
| C4355285 | XX2105KA29AA915MA1 | X2105K275VAC | 25   | 19   | 10  | 0.8        | 22.5 | 1   | 22.5AA22.5 |
| C4355286 | XX2224KA24AA415MA1 | X2224K275VAC | 13   | 12   | 6   | 0.6        | 10   | 1   | 10AA10     |
| C4355287 | XX2224KA24AA415MA2 | X2224K275VAC | 13   | 12   | 6   | 0.6        | 10   | 1   | 10AA10     |
| C4355288 | XX2224KA24AA415MA3 | X2224K275VAC | 13   | 16   | 8   | 0.6        | 10   | 1   | 10AA10     |
| C4355289 | XX2224KA26AA615MA1 | X2224K275VAC | 18   | 12   | 6   | 0.8        | 15   | 1   | 15AA15     |
| C4355290 | XX2224KA26AA615MA2 | X2224K275VAC | 18   | 12   | 6   | 0.8        | 15   | 1   | 15AA15     |
| C4355291 | XX2224KAE6AA615MA1 | X2224K310VAC | 18   | 12   | 6   | 0.6        | 15   | 1   | 15AA15     |
| C4355292 | XX2274KA29AA935MA1 | X2274K275VAC | 26.5 | 16.5 | 7   | 0.8        | 22.5 | 1   | 22.5AA22.5 |
| C4355293 | XX2333KA23AA315MA1 | X2333K275VAC | 10   | 11   | 5   | 0.6        | 7.5  | 1   | 7.5AA7.5   |
| C4355294 | XX2333KA23AA315MA2 | X2333K275VAC | 10   | 11   | 5   | 0.6        | 7.5  | 1   | 7.5AA7.5   |
| C4355295 | XX2334KA26AA615MA1 | X2334K275VAC | 17   | 13.5 | 7.5 | 0.8        | 15   | 1   | 15AA15     |
| C4355296 | XX2334KA24AA415MA1 | X2334K275VAC | 13   | 16   | 8   | 0.6        | 10   | 1   | 10AA10     |
| C4355297 | XX2334KA29AA930MA1 | X2334K275VAC | 25   | 17.5 | 8   | 0.8        | 22.5 | 1   | 22.5AA22.5 |
| C4355298 | XX2334KA26AA615MA2 | X2334K275VAC | 18   | 17.5 | 6   | 0.8        | 15   | 1   | 15AA15     |
| C4355299 | XX2334KA29AA930MA2 | X2334K275VAC | 25   | 14.5 | 6   | 0.8        | 22.5 | 1   | 22.5AA22.5 |
| C4355300 | XX2334MA26AA615MA1 | X2334M275VAC | 17   | 13.5 | 7.5 | 0.8        | 15   | 1   | 15AA15     |
| C4355301 | XX2472KA24AA415MA1 | X2472K275VAC | 13   | 9    | 4   | 0.6        | 10   | 1   | 10AA10     |
| C4355302 | XX2474KA26AA615MA1 | X2474K275VAC | 18   | 16   | 10  | 0.8        | 15   | 1   | 15AA15     |



# 產品編碼說明 Part number code system

## 1.各型號電容 Capacitor code of types

| ①②③              |         | ④⑤⑥                    |         | ⑦ | ⑧⑨                        |         | ⑩                   |         | ⑪⑫                             |              | ⑬       | ⑭⑮⑯   |  |  |
|------------------|---------|------------------------|---------|---|---------------------------|---------|---------------------|---------|--------------------------------|--------------|---------|-------|--|--|
| M E F            |         | 1 0 5                  |         | J | 2 E                       |         | 8                   |         | A A                            |              | 8       | 2 0 M |  |  |
| <b>品名 Series</b> |         | <b>額定容量 Rated Cap.</b> |         |   | <b>額定電壓 Rated Voltage</b> |         | <b>腳距碼 (Pitch)P</b> |         | <b>腳型碼 Forming lead shapes</b> |              |         |       |  |  |
| 型號 Type          | 代碼 Code | 容量(μf) Cap.            | 代碼 Code |   | 電壓 Voltage                | 代碼 Code | 腳距 P (mm)           | 代碼 Code | 圖形 Fig.                        | 備註 Note (mm) | 代碼 Code |       |  |  |
| PEI              | PEI     | 0.0010                 | 102     |   | 50 VDC                    | 1H      | 5                   | 2       |                                | L≥20 / P±1   | AA      |       |  |  |
| PEN              | PEN     | 0.0011                 | 112     |   | 63 VDC                    | 1J      | 7.5                 | 3       |                                | L±1 / P±1    | AS      |       |  |  |
| MEF              | MEF     | 0.0012                 | 122     |   | 100 VDC                   | 2A      | 10                  | 4       |                                | L≥20 / P±1   | KA      |       |  |  |
| MET              | MET     |                        | ...     |   | 200 VDC                   | 2D      | 12.5                | 5       |                                | L±1 / P±1    | KS      |       |  |  |
| MEA              | MEA     | 0.010                  | 103     |   | 250 VDC                   | 2E      | 15                  | 6       |                                | L≥20 / P1±1  | EA      |       |  |  |
| MEB              | MEB     | 0.011                  | 113     |   | 400 VDC                   | 2G      | 20                  | 8       |                                | L±1 / P±1    | ES      |       |  |  |
| PPN              | PPN     | 0.012                  | 123     |   | 450 VDC                   | 2L      | 22.5                | 9       |                                | L≥20 / P1±1  | WA      |       |  |  |
| MPP              | MPP     |                        | ...     |   | 500 VDC                   | 2H      | 25                  | A       |                                | L±1 / P±1    | WS      |       |  |  |
| MPT              | MPT     | 0.100                  | 104     |   | 520VDC                    | 2B      | 27.5                | B       |                                | L≥20 / P1±1  | NA      |       |  |  |
| MPA              | MPA     | 0.110                  | 114     |   | 630 VDC                   | 2J      | 32.5                | D       |                                | L±1 / P±1    | NS      |       |  |  |
| MPB              | MPB     |                        | ...     |   | 800 VDC                   | 2K      | 35                  | E       |                                | P+0.8~-0.2   | AT      |       |  |  |
| X1               | XX1     | 1.0                    | 105     |   | 1000 VDC                  | 3A      | 37.5                | F       |                                | P+0.8~-0.2   | KT      |       |  |  |
| X2               | XX2     |                        | ...     |   | 1200 VDC                  | 3B      | 42.5                | H       |                                | P+0.8~-0.2   | ET      |       |  |  |
| MinBox           | MIB     |                        |         |   | 1250 VDC                  | 3M      | 3                   | P       |                                | Axial(L≥28)  | LA      |       |  |  |
| MES              | MES     |                        |         |   | 1500 VDC                  | 3C      | 4                   | Q       |                                | Axial軟導線     | LX      |       |  |  |
| MPS              | MPS     |                        |         |   | 1600 VDC                  | 3V      | 6                   | S       |                                |              |         |       |  |  |
| KPS              | KPS     |                        |         |   | 1800 VDC                  | 3W      | 7                   | R       |                                |              |         |       |  |  |
| MPH              | MPH     |                        |         |   | 2000 VDC                  | 3D      | 8                   | W       |                                |              |         |       |  |  |
| MHS              | MHS     |                        |         |   | 2500 VDC                  | 3E      | 16                  | X       |                                |              |         |       |  |  |
| KHS              | KHS     |                        |         |   | 3000 VDC                  | 3F      | 21                  | Y       |                                |              |         |       |  |  |
| KES              | KES     |                        |         |   | 300 VAC                   | A1      | 31.5                | Z       |                                |              |         |       |  |  |
| PPS              | PPS     |                        |         |   | 275 VAC                   | A2      | 43.5                | V       |                                |              |         |       |  |  |
| 2PS              | 2PS     |                        |         |   | 100 VAC                   | A3      | 橫軸 Axial            | 0       |                                |              |         |       |  |  |
| 3PS              | 3PS     |                        |         |   | 160 VAC                   | A4      |                     |         |                                |              |         |       |  |  |
| 4PS              | 4PS     |                        |         |   | 200 VAC                   | A5      |                     |         |                                |              |         |       |  |  |
| 5PS              | 5PS     |                        |         |   | 250 VAC                   | A6      |                     |         |                                |              |         |       |  |  |
| 6PS              | 6PS     |                        |         |   | 450 VAC                   | A7      |                     |         |                                |              |         |       |  |  |
| VPF              | VPF     |                        |         |   | 310VAC                    | AE      |                     |         |                                |              |         |       |  |  |
| VPB              | VPB     |                        |         |   | 330VAC                    | A9      |                     |         |                                |              |         |       |  |  |

| 容差碼 Cap.Tolerance |      |
|-------------------|------|
| F                 | ±1%  |
| G                 | ±2%  |
| H                 | ±3%  |
| J                 | ±5%  |
| K                 | ±10% |
| M                 | ±20% |

| 腳長(mm)   | 代碼  |
|----------|-----|
| 3.2      | 032 |
| 直腳(L≥20) | 20M |
| 編帶(TAP)  | 000 |

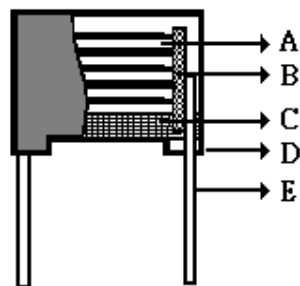
第⑩碼⑬碼為腳距碼  
 第⑩碼為原始腳距碼  
 第⑬碼為整形後腳距碼

一. Scope : This specification applied to capacitor for type "X2"  
( Metallized Polypropylene Film Interference Suppression Capacitor ).  
適用範圍：本規範適用於電容類型“X2”  
(抑制電源電磁干擾用X2屬化聚丙烯膜電容器)

二. Type application :  
Interference suppression and across-the-line capacitor applications.  
Suitable for used in situations where failure of the capacitor will not lead to danger  
of electric snock.  
用途：  
干擾抑制器和跨線電容器應用。  
適用於使用的電容器失效後不會導致觸電的危險的場合。

三. Constructions 結構 & Material材料 :

X2 (MPX) TYPE :



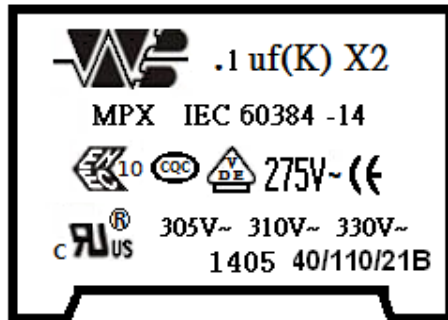
Material 材料

| NO. |   |
|-----|---|
| A   | Metallized Polypropylene Film (ZN-AL) 金屬化聚丙烯膜 (鋅-鋁) |
| B   | Metals(SN.ZN.SB.CU). 合金(錫.鋅.銻.銅)                    |
| C   | Epoxy resin 環氧樹脂                                    |
| D   | Plastic Case 塑膠殼體                                   |
| E   | CP wire 鍍錫銅包鋼線                                      |

四. Features 特點 :

- 4.1 With standing overvoltage stressing . 能承受過壓衝擊 。
- 4.2 Excellent active and passive flame resistant abilities.(compliance with UL94V- 0)  
優異的阻燃性能(符合UL 94V-0)。
- 4.3 Widely used in interference suppression circuit.  
廣泛用於電源跨接線路及抗干擾場合。
- 4.4 Safety approval. 安規認證。
- 4.5 High moisture resistance. 優良的耐濕性。
- 4.6 Self-healing property. 自愈性。

## 五. Marking 印字：



| NO | ITEM 項目                 | Explain 說明  |
|----|-------------------------|---|
| 1  |                         | JOEY LOGO 久亦電子商標  |
| 2  | .1uF(K)                 | Capacitance and tolerance 容值和偏差：.1=0.1uF,(K)=±10%             |
| 3  | X2                      | Class 電容類別：X2 類   |
| 4  | MPX                     | Product type 產品型號：MPX   |
| 5  | IEC 60384 -14           | According to the standard 依據標準：IEC 60384-14                   |
| 6  |                         | Safety approval 安規認證  |
| 7  | 275V~ 305V~ 310V~ 330V~ | Rated voltage 額定電壓：275VAC/305VAC/310VAC/330VAC                |
| 6  | 1405                    | Production cycle 生產周期：14年5月                                   |
| 9  | 40/110/21B              | Climatic Category 氣候類別<br>(G：-40℃，L：110℃，F：21 Test Days 試驗天數) |

## 六. Electrical specifications 電氣特性

Unless otherwise specified, electric characteristics shall refer to IEC 60384-14

如無其他說明，電氣特性請參考 IEC 60384-14

| Item 項目  | Specification 規格  |       |        |       |       |         |         |
|--|---|-------|--------|-------|-------|---------|---------|
| Capacitance Range 容量範圍                                   | 0.001uF ~ 1.0uF   |       |        |       |       |         |         |
| Capacitance Tolerance 容量偏差                               | ±10%(K), +20%(M)  |       |        |       |       |         |         |
| Rated Voltage 額定電壓                                       | 275VAC / 305VAC / 310VAC / 330VAC   |       |        |       |       |         |         |
| Operating Temperature 工作溫度                               | - 40 °C ~ + 110 °C  |       |        |       |       |         |         |
| Climatic Category 氣候類別                                   | 40/110/21B  |       |        |       |       |         |         |
| Passive Flammability Class 阻燃等級                          | 40/110/21B  |       |        |       |       |         |         |
| Dissipation Factor 散逸因素                                  | ≤ 0.1% ( 1KHz at 20~25°C )  |       |        |       |       |         |         |
| Insulation Resistance 絕緣電阻                               | C ≤ .33uF for >15 000M Ω ; 1.0uF ≥ C > .33uF for >5 000M Ω<br>( Measured at 100 ± 10 VDC / 60s / 20 ~ 25 °C )   |       |        |       |       |         |         |
| Withstand Voltage<br>Between Terminals 端子間耐壓             | 4.3*VDC/1min, no breakdown or flashover.<br>(Voltage raising time 5~10sec, cut off current 20mA, ARC=OFF)<br>施加測試電壓4.3*V直流電/1分鐘，無擊穿或電弧。<br>(電壓上升時間5~10秒，漏電流20毫安，無擊穿或電弧) |       |        |       |       |         |         |
| Withstand Voltage Between Terminals<br>And Case 端子與殼體間耐壓 | 2050VAC/1min, no breakdown or flashover.<br>施加測試電壓2050交流電 / 1分鐘，無擊穿或電弧  |       |        |       |       |         |         |
| Rated Voltage 額定電壓                                       | V.R   | Pitch | 7.5m/m | 10m/m | 15m/m | 22.5m/m | 27.5m/m |
| Pulse Slope 脈沖斜度 dv/ dt<br>(V/us) at 389 VDC             |   |       |        |       |       |         |         |

## 七. Characteristics 特性：X2 (MPX) - TYPE 型別

| NO. | Item 項目   | Characteristics 特性  | Test method 試驗方法  |
|-----|---|---|---|
| 1   | Capacitance Range<br>容量範圍                       | 0.001uF~1.0 Uf  | IEC60384-14 C4.2.2<br>IEC60384-1 C4.7<br>Measure at 1KHz (20°C ~ 25°C)  |
| 2   | Capacitance Tolerance<br>容量偏差                   | Within spesified tolerance<br>規定範圍內偏差<br>K : ±10% ; M : ±20%  | IEC60384-14 C4.2.2<br>IEC60384-1 C4.7<br>Measure at 1KHz (20°C ~ 25°C)  |
| 3   | Dissipation Factor<br>散逸因素                      | ≤ 0.1%  | IEC60384-14 C4.2.3<br>IEC60384-1 C4.8<br>Measure at 1KHz (20°C ~ 25°C)  |
| 4   | Rated Voltage<br>額定電壓                           | 275/305/310/330VAC 50/60Hz  | IEC60384 - 14   |
| 5   | Withstand Voltage<br>Between Terminals<br>端子間耐壓 | No abnormality 無異常  | IEC60384-14 C4.2.1<br>IEC60384-1 C4.6<br>4.3*V <sub>R</sub> (VDC)/1min, no breakdown or<br>flashover. (Voltage raising time 5~10<br>sec , cut off current 20mA,ARC=OFF) |
| 6   | Terminal<br>Strength<br>端子強度                    | Pull<br>Strength<br>拉伸強度  | IEC60384-14 C4.2.5<br>(IEC60384-1 C4.13)<br>IEC60068 2-21 Test Ua1<br>Wire diameter 線徑0.6和0.8mm<br>Load荷重：10N，time時間：10sec  |
|     |   | Bending<br>Strength<br>彎曲強度   | IEC60384-14 C4.3<br>(IEC60384-1 C4.13)<br>IEC60068 2-21 Test Ua1<br>Wire diameter 線徑0.6和0.8mm<br>Load荷重：5N，900 *4 times 次   |
| 7   | Solderability<br>焊錫附著性                          | At least 95% of the Circumference of<br>the lead wire.<br>Around load surface dipped Into with new<br>solder<br>焊錫覆蓋面積必須達浸沾表面積<br>95%以上 | IEC60384-14-4.5<br>(IEC60384-1-1.15)<br>IEC60068 2-20<br>Solder temp 焊錫溫度：245 ± 5 °C<br>Immersion time 浸入時間：2.5 ± 0.5<br>sec  |
| 8   | Cold<br>Resistance<br>耐寒性                       | Appearance<br>外觀  | No abnormality<br>無異常   |
|     |   | Capacitance<br>Variation<br>容量變化  | Within Δ C/C ± 2% of the value<br>Before test   |
|     |   |   | IEC60384-14 C4.11.4<br>IEC60068 2-1<br>Temp 溫度：- 40 + 8 / - 0°C Duration<br>持續時間：2 + 1 / - 0 hours Then<br>recovery at ordinary Condition 1~2 hours<br>恢復時間：1~2小時       |

## 七. Characteristics 特性：X2 (MPX) - TYPE 型別

| NO. | Item 項目                               | Characteristics 特性                                    | Test method 試驗方法   |   |
|-----|---------------------------------------|---|--|---|
| 10  | Resistance to Soldering heat<br>焊接耐熱性 | No visible damage                                     | IEC60384-14 C4.5<br>(IEC60384-1 C4.15)<br>IEC60068-2-20<br>Solder temp 焊錫溫度：260 ± 5°C<br>Immersion time 浸入時間：3 ± 1 sec<br>Then recovery at ordinary Condition<br>1~2 hours<br>恢復時間1~2        |   |
|     |                                       | 4.3*V <sub>R</sub> (VDC) / 1min<br>No abnormality 無損傷 |  |   |
|     |                                       | $\Delta C / C < \pm 5 \%$                             |  |   |
| 11  | Damp heat,<br>Steady state<br>穩態濕熱    | Appearance<br>外觀                                      | IEC60384-14 C4.12<br>(IEC60384-1 C4.22)<br>IEC60068 2-3<br>Humidity 相對濕度：90~95%<br>Temp 溫度：40 ± 2°C<br>Duration 持續時間：21day<br>Then recovery at ordinary condition<br>1~2hours<br>恢復時間1~2小時   |   |
|     |                                       | Capacitance<br>Variation<br>容量變化                      |  | $\Delta C / C < \pm 5 \%$                             |
|     |                                       | Dissipation<br>Factor<br>散逸因素                         |  | ≤ 0.2% 1KHz   |
|     |                                       | Withstand<br>Voltage<br>耐電壓                           |  | 4.3*V <sub>R</sub> (VDC) / 1min<br>No abnormality 無損傷 |
|     |                                       | Insulation<br>Resistance<br>絕緣電阻                      |  | $\Delta IR / IR \leq 50 \%$                           |
| 12  | Endurance<br>test<br>耐久性試驗            | Appearance<br>外觀                                      | IEC60384-14 C4.14<br>Temp 溫度：100 ± 2 °C<br>Duration 持續時間1000+48 / - 0 hours<br>Applied Voltage 施加電壓：125%<br>of R.V<br>Then recovery at ordinary Condition<br>at least 16 hours<br>恢復時間至少16小時 |   |
|     |                                       | Capacitance<br>Variation<br>容量變化                      |  | $\Delta C / C < \pm 5 \%$                             |
|     |                                       | Dissipation<br>Factor<br>散逸因素                         |  | ≤ 0.5% 1KHz   |
|     |                                       | Withstand<br>Voltage<br>耐電壓                           |  | 4.3*V <sub>R</sub> (VDC) / 1min<br>No abnormality 無損傷 |
|     |                                       | Insulation<br>Resistance<br>絕緣電阻                      |  | $\Delta IR / IR \leq 50 \%$                           |



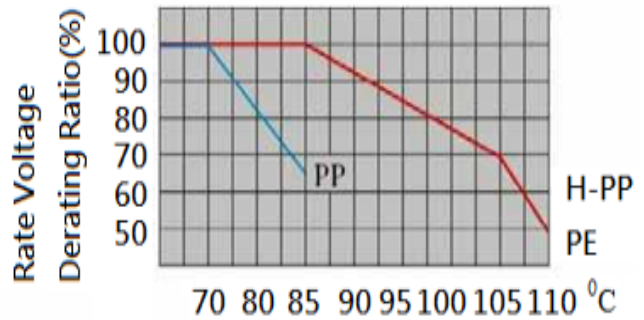
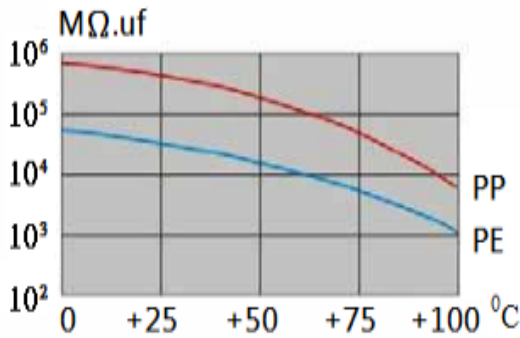
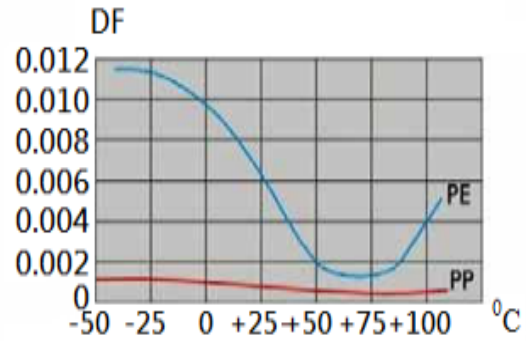
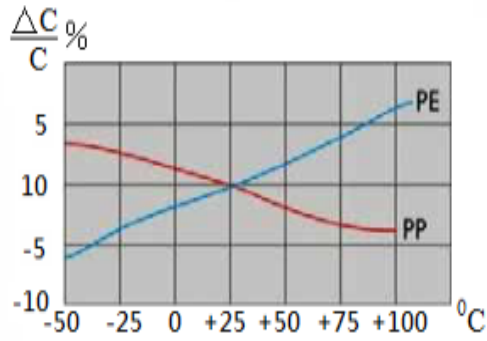
## 八. TESTING EQUIPMENT 檢測設備:

- (一) CAPACITANCE AND 容量和損耗角 (CAP& DF) :
1. UAD TECH 1689 LCR METER.
  2. TAI WAN ZENTECH 1062 LCR METER.
  3. TAI WAN ZENTECH 1063 LCR METER.
  4. TAI WAN ZENTECH 1075 LCR METER.
- (二) INSULATION RESISTANCE 絕緣阻抗 (IR) :
1. DAN BRIDGE 602 METER
  2. ZENTECH 705 IR METER.
- (三) DIELECTRIC STRENGTH 耐電壓 (TV) :
1. ZENTECH 902
  2. TAI WAN EXTECH 7450
- (四) AUTO SORTING MACHINES 自動分選機(選別機)
1. TAI WAN URANUS SORTING AUTOMATIC
  2. TAI WAN WELL DELL SORTING AUTOMATIC
- (五) CHARACTERISTICS OF PERMISSIBLE CURRENT TO FREQUENCY  
許容電流與頻率特性
1. CHROMA PROGRAMMABLE HF AC TESTER MODEL 11805  
可程式高頻交流測試器11805
  2. CHROMA DIGIT MULTIMETER 12061  
六位半數位多功能電表
  3. CHROMD CAPACITOR LEAKAGE CURRENT / IR METER MODEL11200  
電容漏電流/絕緣電阻表11200
- (六) RoHS & WITHOUT HALOGEN  
RoHS和無鹵產品
1. SHIMADZU EDX-LE
- (七) Capacitor pulsed voltage experiments 電容器脈沖電壓實驗
1. 上海希瑞電子 電容器脈沖電壓試驗儀
- (八) Capacitor of spontaneous combustion experiment 電容器自燃性實驗
1. 上海希瑞電子 電容器自燃性試驗儀
- 九. ACCEPTABLE QUALITY LEVEL 允收標準 (AQL):  
AQL IS ACCORDING TO MIL-STD-105E-II, BY LOT GOING INSPECTION.  
允收標準(AQL)是根據MIL-STD-105E-II抽樣方試檢驗
- (一) APPEARANCE AQL: 1.0 AC  
外觀不良低於1.0為允收
- (二) DIMENSIONS AQL: 1.0 AC  
尺寸不良低於1.0為允收
- (三) MECHANICAL CHARACTERISTICS AQL: 1.0 AC  
機械特性不良低於1.0為允收
- (四) ELECTRICAL CHARACTERISTICS AQL: 0.065 (INCLUDE CAP,DF,TV,IR)  
電器特性不良低於 0.065 (包括 CAP,DF,TV,IR)

十. Product electrical characteristic graph 產品電氣特性圖

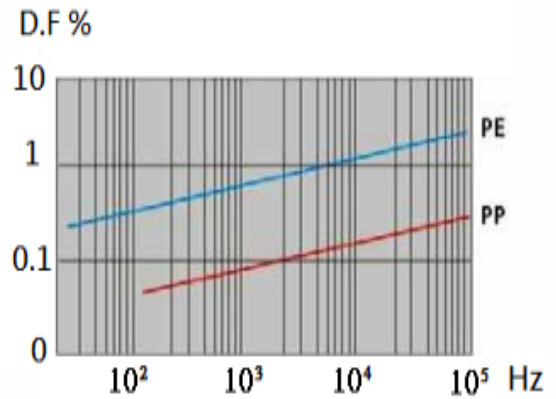
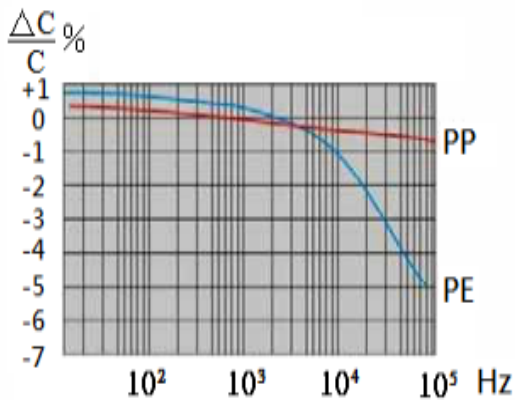
溫度性能

Temperature Characteristics



頻率性能

Frequency Characteristics



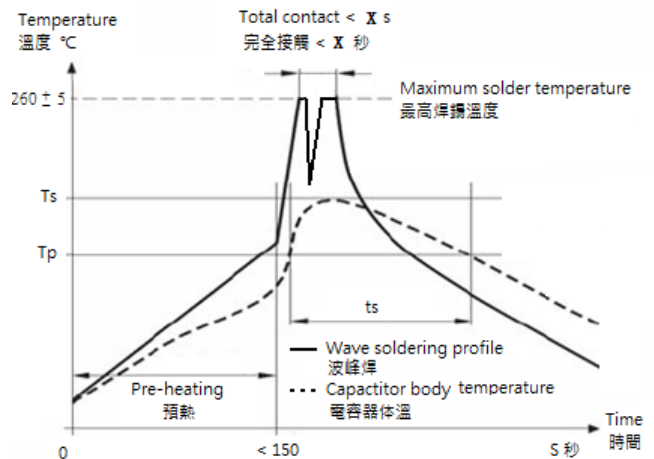
### 十一. Soldering suggestions - 焊接建議

When soldering a capacitor, heat in soldering is conducted to the element of the capacitor from wire lead and an enclosure, and hence it should be noted that soldering under high temperature and a long period may cause deterioration or breakdown of capacitors. Characteristic or Be sure to solder within the following temperature condition range.

當焊接電容時，焊錫熱會通過引線端子高溫 and 封裝層傳遞到電容素子，因此必須注意高溫和長時間焊接引起的電容器特性衰減或損壞，請確認焊錫在以下溫度範圍內。

Ts : Capacitor body maximum temperature at wave soldering  
電容器本體最高波峰焊溫度

Tp : Capacitor body maximum temperature at pre-heating  
電容器本體最高預熱溫度



Body temperature should follow the description below  
電容器本體溫度應該符合以下描述：

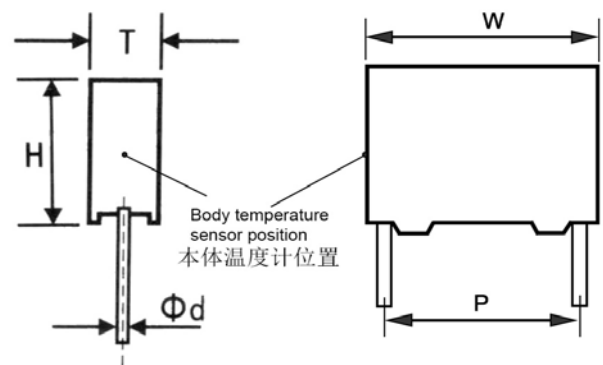
PP 聚丙烯電容器

During pre-heating :  $T_p \leq 115^\circ\text{C}$

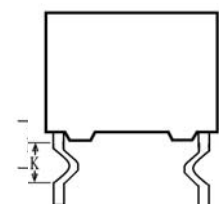
During soldering :  $T_s \leq 120^\circ\text{C}$  ,  $t_s \leq 45\text{ s}$

預熱期間溫度 :  $T_p \leq 115^\circ\text{C}$

焊接期間溫度 :  $T_s \leq 120^\circ\text{C}$  ,  $t_s \leq 45\text{ 秒}$



|   |            |     |
|---|------------|-----|
|   | X s        | X s |
| T 產品厚度 $\geq 6\text{mm}$                            | 10 s       |     |
| $6\text{mm} > T$ 產品厚度 $\geq 5\text{mm}$ 且 K 3.5mm   | 10 s       |     |
| $6\text{mm} > T$ 產品厚度 $\geq 5\text{mm}$             |            | 5 s |
| $5\text{mm} > T$ 產品厚度 $\geq 4.5\text{mm}$ 且 K 3.5mm |            | 5 s |
| <b>OPP P &lt; 7.5mm 或 T 產品厚度 &lt; 4.5 mm</b>        | <b>3 s</b> |     |



十二. When SMD components are used together with leaded ones, the film capacitors should not pass into the SMD adhesive curing. The leaded components should be assembled after the SMD curing step.

當SMD元件與引腳式元件一起使用時，薄膜電容器不應進入SMD粘合劑固化爐。引腳式部件應在SMD固化步驟之後組裝。

十三. Leaded film capacitors are not suitable for reflow soldering.

引腳式薄膜電容器不適合回流焊。

十四. In order to ensure proper conditions for manual or selective soldering, the body temperature of the capacitor ( $T_s$ ) must be  $\leq 120^\circ\text{C}$

爲了確保手動或選擇性焊接的適當條件，電容器 ( $T_s$ ) 的本體溫度必須是  $\leq 120^\circ\text{C}$

十五. One recommended condition for manual soldering is that the tip of the soldering iron should be  $< 360^\circ\text{C}$  and the soldering contact time should be no longer than 3 seconds.

手工焊接的一個推薦條件是烙鐵的頂端應該是  $< 360^\circ\text{C}$ ，焊接接觸時間不應超過3秒。

十六. Manufacturers製造商：JOEY ELECTRONICS CO,LTD. 久亦電子有限公司。  
Origin , including 產地：CHINA P .R .C 中國

十七. The compliance with enviroment requirement 環保要求符合性

17.1 Compliance with the requirement of RoHS.符合RoHS要求。

17.2 Compliance with the requirement of REACH.符合REACH要求。

17.3 Without Halogen ( as required ) 符合無鹵 ( 如要求 ) 。

十八. Storage conditions 存儲條件：

18.1 It should be noted that the solderability of the terminals may be deteriorated when Stored bardly in an atmosphere for a long periods.

請注意，長時間暴露在空氣中會導致引線焊接性能衰減。

18.2 It shouldn't be located in particularly high temperature and high humidity , it must Submit to the following conditions ( keeping in the original package )：

不能放置在高溫和高濕環境中，請遵循以下存儲條件 ( 原包裝下保存 )

Temperature 溫度：35°C MAX.

Relative humidity 相對濕度：80% MAX.

18.3 Storage period：(from the manufacturing date marked on the label in package bag )  
Loose：12months MAX.

存儲時間：( 包裝袋上標注的生產日期為準 ) 最長12個月。

十九. Characteristics and test conditions 電氣特性和測試條件：

Test condition：Unless otherwise specified , the standard range of atmospheric  
Conditions for marking measurements and test is as follows Ambient Temperature  
環境溫度：15~35°C

Relaive humidity 相對濕度：25~75%

If there may be any doubt on the results , measurements shall be made within the  
Following limits.

如對測試結果有任何疑問，則按以下限制測試：

Ambient temperature 環境溫度：20 ~ 25 °C

Relative humidity 環境濕度：60 ~ 70% .

2017/11/22

FOWX2.E216807 - Fixed Capacitors for Use in Electronic Equipment - Component



ONLINE CERTIFICATIONS DIRECTORY

**FOWX2.E216807**  
**Fixed Capacitors for Use in Electronic Equipment - Component**

[Page Bottom](#)

**Fixed Capacitors for Use in Electronic Equipment - Component**

[See General Information for Fixed Capacitors for Use in Electronic Equipment - Component](#)

**JOEY ELECTRONICS (DONG GUAN) CO LTD**

E216807

Xin Si Xiao Keng Wei Industrial


Heng Li

Dongguan, Guangdong 523465 CHINA

**Fixed Capacitors**

| Type Dsg | Capacitor Class | Voltage Rating (V) | Capacitance ( $\mu$ F) (Tolerance) | Resistance for RC Devices (ohms) | Lower Temp ( $^{\circ}$ C) | Upper Temp ( $^{\circ}$ C) |
|----------|-----------------|--------------------|------------------------------------|----------------------------------|----------------------------|----------------------------|
| MPX\$    | X1/X2           | 300/305/310/330 ac | 0.001-4.7, +/-20%                  | —                                | -40                        | +110                       |

\$ - the model code may be followed by M for +/-20%, K for +/-10%, constructions of this type designation that have a body volume of less than 1750 mm<sup>3</sup> have a "C" Passive Flammability Category, where all other sizes have a "B" Passive Flammability Category.

Marking: Company name or trademark  and type designation.

Last Updated on 2013-12-26



# CERTIFICATE OF PRODUCT CERTIFICATION

CERTIFICATE NO.: CQC06001017955

Valid from: May.05,2022

Valid until:long-term

**NAME AND REGISTERED ADDRESS OF THE APPLICANT** Joey Electronics (Dong Guan) Co., Ltd.  
201, Building 2, No. 1 Donghu Rd, Jiuwei Village, Qishi Town, Dongguan, Guangdong, China

**NAME AND REGISTERED ADDRESS OF THE MANUFACTURER** Joey Electronics (Dong Guan) Co., Ltd.  
201, Building 2, No. 1 Donghu Rd, Jiuwei Village, Qishi Town, Dongguan, Guangdong, China

**NAME AND LOCATION OF THE FACTORY** Joey Electronics (Dong Guan) Co., Ltd.  
2-3F, Building 2, No. 1 Donghu Rd, Jiuwei Village, Qishi Town, Dongguan, Guangdong, China

**PRODUCT NAME, MODEL AND SPECIFICATION** EMI Capacitor  
MPX X2 275/305/310/330VAC 0.001 $\mu$ F-3.3 $\mu$ F(K 或 M) 40/110/21 B

**THE STANDARDS AND TECHNICAL REQUIREMENTS FOR THE PRODUCTS** GB/T 6346.14-2015

**TYPE OF CERTIFICATION SCHEMES** Type Testing of Product + Follow up Factory Inspection

This is to certify that the above mentioned product(s) complies with the requirements of certification rules of CQC11-471115-2016.

Date of original issued: Dec.19,2006

The validity of the certificate is subject to positive result of the regular follow up inspection by issuing certification body.

The certificate information is available through the QR code below or CNCA's website: [www.cnca.gov.cn](http://www.cnca.gov.cn)



SIGNATURE:

谢肇煦



CHINA QUALITY CERTIFICATION CENTRE

## ZEICHENGENEHMIGUNG MARKS APPROVAL

Joey Electronics (Dong Guan)  
Co., Ltd.  
201, Building 2, No. 1 Donghu Rd  
Jiuwei Village, Qishi Town  
523508 DONGGUAN  
Guangdong China

ist berechtigt, für ihr Produkt /  
*is authorized to use for their product*

**Festkondensator zur Unterdrückung elektromagnetischer  
Störungen, geeignet für Netzbetrieb**  
***Fixed capacitor for electromagnetic interference  
suppression and connection to the supply mains***

die hier abgebildeten markenrechtlich geschützten Zeichen  
für die ab Blatt 2 aufgeführten Typen zu benutzen /  
*the legally protected Marks as shown below for the types referred to on page 2 ff.*



Geprüft und zertifiziert nach /  
*Tested and certified according to*

DIN EN 60384-14 (VDE 0565-1-1):2014-04; EN 60384-14:2013-08  
DIN EN 60384-14/A1 (VDE 0565-1-1/A1):2017-04; EN 60384-14:2013/A1:2016  
Das Produkt erfüllt auch die Anforderungen nach /  
*The product also fulfills the requirements of*  
IEC 60384-14:2013  
IEC 60384-14:2013/AMD1:2016



Aktenzeichen: 2490200-4670-0004 / 282569

File ref.:

Ausweis-Nr. 40032481

Blatt 1

Certificate No.

Page

Weitere Bedingungen siehe Rückseite und Folgeblätter /  
*further conditions see overleaf and following pages*

Offenbach, 2011-05-09

(letzte Änderung / updated 2021-08-02)

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Joey Electronics (Dong Guan) Co., Ltd., 201, Building 2, No. 1 Donghu Rd, Jiuwei Village, Qishi Town, 523508  
DONGGUAN, Guangdong, CHINA

Aktenzeichen / *File ref.*

2490200-4670-0004 / 282569 / TL3 / KIL

letzte Änderung / *updated*

2021-08-02

Datum / *Date*

2011-05-09

Dieses Blatt gilt nur in Verbindung mit Blatt 1 des Zeichengenehmigungsausweises Nr. 40032481.

*This supplement is only valid in conjunction with page 1 of the Certificate No. 40032481.*

## **Festkondensator zur Unterdrückung elektromagnetischer Störungen, geeignet für Netzbetrieb**

### ***Fixed capacitor for electromagnetic interference suppression and connection to the supply mains***

Typ(en) / *Type(s)*

#### **MPX**

Warenzeicheninhaber  
*Trademark holder*

Joey Electronics (Dong Guan) Co., Ltd.

Weitere Einzelheit(en)

Anlage Nr. 200,700 vom 2021-07-14  
Anlage Nr. 600 vom 2021-08-02

*Further details*

*Appendix no. 200,700 dated 2021-07-14  
Appendix no. 600 dated 2021-08-02*

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VDE Prüf- und Zertifizierungsinstitut GmbH  
*VDE Testing and Certification Institute*  
Fachgebiet TL3  
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