

規格承認書 Approval Sheet

客戶名稱 : Customer	華秋
客戶料號 : Customer Part No.	/
產品名稱 : Part Name	安全規範陶瓷電容器, X1/Y1 類 - PY1 系列 Safety Standard Recognized Ceramic Capacitor, Class X1/Y1 - PY1 series
產品代碼 : Product Code	PY1FN472MD400AB0825, PY1EE681KC400AB1025
規格描述 : Specification	100220, 60210
制作日期 : Date	Apr. 18, 2024

APPROVAL STAMP

VENDER

CUSTOMER

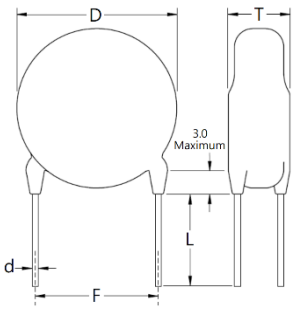
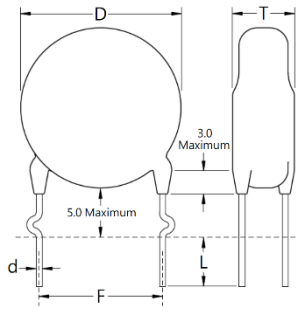
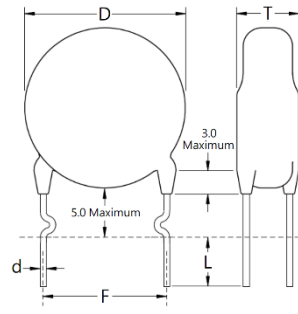
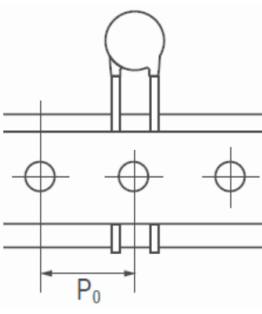


 **威迪電子**
WINDAY ELECTRONIC

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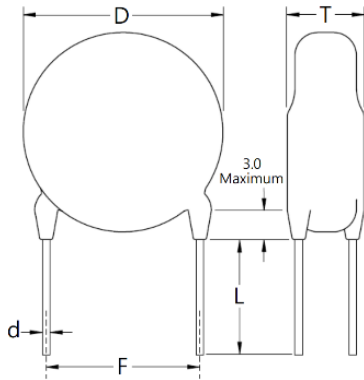


■ 尺寸 Dimension :

引線成形 Lead Forming			
B (Straight 23mm) K (Short)	R (Outside Kink)	U (inside Kink)	T (Taping)
			

客戶料號 Customer Part No.	規格描述 Description	引線成形 Lead Forming	尺寸單位 Dimension in mm					溫度特性 Temperature Characteristic
			D _{max}	T _{max}	L _{±2.0}	F _{±0.5}	∅d _{±0.05}	
/	472M400Vac	B	12.0	6.0	25	7.5	0.55	Y5V
/	681K400Vac	B	8.0	6.0	25	10	0.55	Y5U

■ 外形圖 Outline Drawing (For Example)



■ 典型應用

- 線對線 (X 類) 濾波 ·
- 線對地 (Y 類) 濾波 · 天線耦合 ·
- 一次和二次耦合 (開關電源) 和線路干擾抑制 ·
- 電機和電機控制器 · 繼電器 · 開關電源和逆變器 ·

■ 特徵

- 高達 125°C 的可靠運行
- 無鉛 · 符合 RoHS · 無鹵素
- 封裝符合易燃性標準 UL 94V-0

■ Typical Applications

- Line-to-line (class X) filtering, Line-to-ground (class Y) filtering, Antenna coupling, Primary and secondary coupling (switching power supplies) and line disturbances suppression, Motors and motor controls, relays, switching power supplies and invertors.

■ Features

- Reliable operation up to 125°C
- Lead -free and RoHS Compliant, Halogen free
- Encapsulation meets flammability standard UL 94V-0

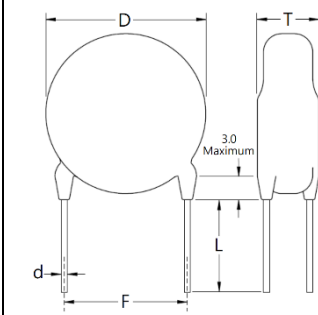
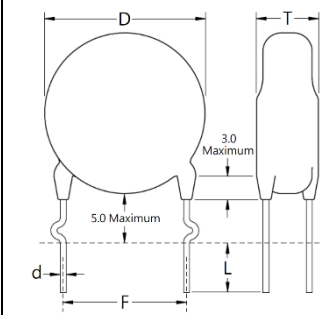
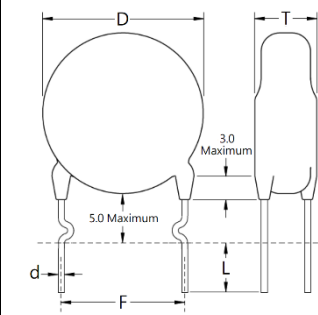
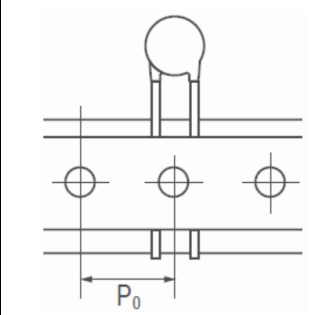
■ 規格 Specifications

參考標準 Reference Standard	IEC 60384-14		
容量範圍 Capacitance Range	10 pF ~ 4700 pF		
容量誤差 Capacitance Tolerance	±10% (K) 、 ±20% (M)		
額定電壓 Rated Voltage (U _R)	X1 440Vac	Y1 400Vac	
工作溫度範圍 Operating Temperature Range	-25°C~125°C		
介質,溫度系數 Dielectric, Temperature Characteristic	Y5P	Y5U	Y5V
電容變化參考 Capacitance Change with Reference to +25°C and 0 VDC Applied	±10%	+22%, -56%	+22, -82%
損耗因素 Dissipation Factor (tan δ) at 1kHz and 1V _{rms} , 25°C	≤ 2.5%	≤ 2.5%	≤ 5.0%
耐電壓 Voltage Proof	引線間 Between Lead Wires	4000Vac (60 seconds at 25°C)	
	本體絕緣 Body Insulation		
絕緣電阻 Insulation Resistance (IR)	> 6,000 MΩ (100Vdc, 60 seconds at 25°C)		

■ 產品代碼構成 Product code system (For Example)

PY1	F	A	102	M	A	400	A	B	10	23
型號 Type	溫度特性 Temperature characteristics	內部使用 Internal Use	容值 Capacitance	公差 Tolerance	內部使用 Internal Use	電壓 Rated Voltage	交直流 AC/DC	引線成形 Lead Forming	引線間距 Lead Pitch	引線長度 Lead Length
PY1= Ceramic Capacitor Class- X1/Y1	B=Y5P E=Y5U F=Y5V	--	4R7=4.7pF 220=22pF 471=470pF 102=1000pF	K=±10% M=±20%	--	400= 400V	A=AC	(表一) Shown as Table I	05=5mm 08=7.5mm 10=10mm	04=3.5mm 23=23mm

(表一) Table I

引線成形 Lead Forming			
B (Straight 23mm) K (Short)	R (Outside Kink)	U (inside Kink)	T (Taping)
			

■ 標示 Marking (For Example)

Marking



1. WDC is a trademark of WINDAY	2. Type of the Capacitors: CD
3. Capacitance: 472 indicates 4700pF	4. Capacitors Tolerance: M=±20%
5. Recognized Approval Mark	6. Class & Rated Voltage: X1 440V~, Y1 400V~

■ 尺寸 Dimension :

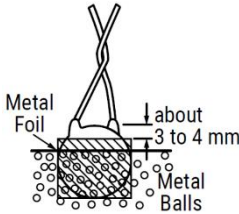
介質,溫度系數 Dielectric / Temp. Char.	料號 Part Number	容值 Capacitance	公差 Tolerance	尺寸單位 Dimension in mm			
				D _{max.}	T _{max.}	F _{±0.5}	ød _{±0.05}
Y5P (±10%)	PY1B_100K_400A*10**	10 pF	±10%	8.0	6.0	10.0	0.55
	PY1B_180K_400A*10**	18 pF		8.0			
	PY1B_220K_400A*10**	22 pF		8.0			
	PY1B_330K_400A*10**	33 pF		8.0			
	PY1B_470K_400A*10**	47 pF		8.0			
	PY1B_560K_400A*10**	56 pF		8.0			
	PY1B_680K_400A*10**	68 pF		7.3			
	PY1B_101K_400A*10**	100 pF		7.0			
	PY1B_151K_400A*10**	150 pF		7.0			
	PY1B_221K_400A*10**	220 pF		7.0			
	PY1B_331K_400A*10**	330 pF		8.0			
	PY1B_471K_400A*10**	470 pF		9.0			
	PY1B_681K_400A*10**	680 pF		9.8			
Y5U (+22 ~ -56%)	PY1E_331K_400A*10**	330 pF	±10%	6.8			
	PY1E_471K_400A*10**	470 pF		6.8			
	PY1E_681K_400A*10**	680 pF		8.0			
	PY1E_102M_400A*10**	1000 pF	±20%	8.0			
	PY1E_152M_400A*10**	1500 pF		9.8			
	PY1E_222M_400A*10**	2200 pF		10.7			
	PY1E_332M_400A*10**	3300 pF		13.5			
	PY1E_472M_400A*10**	4700 pF		13.5			
Y5V (+22 ~ -82%)	PY1F_102M_400A*10**	1000 pF	±20%	6.8			
	PY1F_152M_400A*10**	1500 pF		8.0			
	PY1F_222M_400A*10**	2200 pF		9.0			
	PY1F_332M_400A*10**	3300 pF		10.6			
	PY1F_472M_400A*10**	4700 pF		12.0			

(1) 符號 _ 是內部使用代碼 The symbol _ is internal use code

(2) 符號 * 表示引線成型 The symbol * means style of lead forming

(3) 符號 ** 表示引線長度 The symbol ** means the lead length

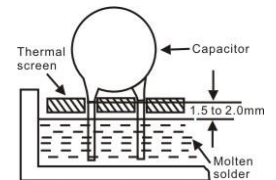
■ 檢驗要求 Inspection requirements

試驗項目 Test items		性能要求 Performance requirements		試驗條件 Conditions of test																							
1.介質強度 Dielectric Strength	引線間 Between Lead Wires	無失效 No failure		在引線間施加表中的測試電壓。 Apply the test voltage in the table between the lead wires. <table border="1" data-bbox="802 557 1493 707"> <thead> <tr> <th>類型 Type</th> <th>測試電壓 Test Voltage</th> <th>持續時間 Duration</th> </tr> </thead> <tbody> <tr> <td>X1/Y2</td> <td>AC1500V (rms)</td> <td>60 seconds</td> </tr> <tr> <td>X1/Y1</td> <td>AC4000V (rms)</td> <td>60 seconds</td> </tr> </tbody> </table>						類型 Type	測試電壓 Test Voltage	持續時間 Duration	X1/Y2	AC1500V (rms)	60 seconds	X1/Y1	AC4000V (rms)	60 seconds									
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	本體絕緣 Body Insulation	無失效 No failure		電容器的端子應連接在一起。 金屬箔緊緊包裹在電容器主體周圍，距離每個端子約 3~4 mm。 然後將電容器插入一個裝滿直徑約 1 mm 的金屬球容器中。 並在電容器引線和金屬球之間施加表中的交流電壓 60 秒。 The terminals of the capacitor shall be connected together. A metal foil is tightly wrapped around the body of the capacitor at a distance of about 3 to 4 mm from each terminal. The capacitor is then inserted into a container filled with metal balls approximately 1 mm in diameter. AC voltage of Table is applied for 60 sec.  <table border="1" data-bbox="802 1238 1493 1388"> <thead> <tr> <th>類型 Type</th> <th>測試電壓 Test Voltage</th> <th>持續時間 Duration</th> </tr> </thead> <tbody> <tr> <td>X1/Y2</td> <td>AC2300V (rms)</td> <td>60 seconds</td> </tr> <tr> <td>X1/Y1</td> <td>AC4000V (rms)</td> <td>60 seconds</td> </tr> </tbody> </table>						類型 Type	測試電壓 Test Voltage	持續時間 Duration	X1/Y2	AC2300V (rms)	60 seconds	X1/Y1	AC4000V (rms)	60 seconds									
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2.溫度系數 Temperature Characteristics		溫度系數 Temperature Characteristics	容量變化 Capacitance Change	在規定的每個步驟進行電容測量: A capacitance measurement is made at each step specified: <table border="1" data-bbox="802 1480 1493 1597"> <thead> <tr> <th>步驟 Step</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> </tr> </thead> <tbody> <tr> <td>溫度 Temperature</td> <td>+25</td> <td>-25</td> <td>+25</td> <td>+85</td> <td>+25</td> </tr> <tr> <td></td> <td>±2°C</td> <td>±2°C</td> <td>±2°C</td> <td>±2°C</td> <td>±2°C</td> </tr> </tbody> </table> 預處理: 電容器在 85±2°C 下儲存 1 小時，然後在測量前放置於室溫下 24±2 小時。 Pre-treatment: Capacitor is stored at 85 ±2°C for 1 hour and then placed at room condition1 for 24 ±2 hours before measurement.						步驟 Step	1	2	3	4	5	溫度 Temperature	+25	-25	+25	+85	+25		±2°C	±2°C	±2°C	±2°C	±2°C
步驟 Step	1	2	3	4	5																						
溫度 Temperature	+25	-25	+25	+85	+25																						
	±2°C	±2°C	±2°C	±2°C	±2°C																						
3.端子強度 Terminal Strength		引線或電容器本體不得斷裂 Lead wire or capacitor body shall not break		拉力 Tensile U_{a1} (持續時間 Duration : 10s±1s) <table border="1" data-bbox="802 1805 1493 1904"> <thead> <tr> <th>線徑 Wire diameter</th> <th>線徑 Wire diameter</th> </tr> </thead> <tbody> <tr> <td>$d \leq 0.8\text{mm}$</td> <td>10N (±10%)</td> </tr> </tbody> </table> 彎曲 Bending U_b (4*90°, 持續時間 Duration : 2 times/bend) <table border="1" data-bbox="802 1955 1493 2047"> <thead> <tr> <th>線徑 Wire diameter</th> <th>線徑 Wire diameter</th> </tr> </thead> <tbody> <tr> <td>$d \leq 0.8\text{mm}$</td> <td>5N (±10%)</td> </tr> </tbody> </table>						線徑 Wire diameter	線徑 Wire diameter	$d \leq 0.8\text{mm}$	10N (±10%)	線徑 Wire diameter	線徑 Wire diameter	$d \leq 0.8\text{mm}$	5N (±10%)										
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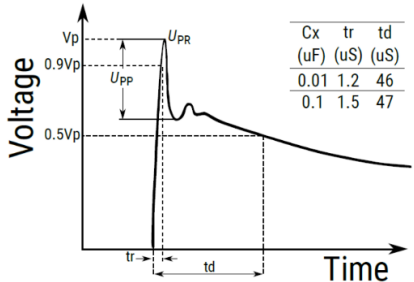
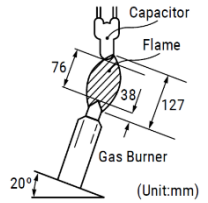
Safety Standard Recognized Ceramic Capacitor, Class X1/Y1

■ 檢驗要求 Inspection requirements

試驗項目 Test items	性能要求 Performance requirements	試驗條件 Conditions of test
4.可焊性 Solderability	引線在軸向和周長的 3/4 以上， 有均勻的焊料塗層。 Lead wire should have a uniform coating of solder in the axial direction and over 3/4 of its circumference.	將電容器的引線浸入熔化的焊料中 5±0.5 秒， 浸入深度為距引線根部 1.5 mm (+5/-0 mm)。 焊料溫度：無鉛焊料 (Sn-3Ag-0.5 Cu) 245°C±5°C。 The lead wire of the capacitor is dipped into molten solder for 5±0.5 seconds. The depth of immersion is up to 1.5mm (+5/-0 mm) from the root of lead wires. Solder Temperature: Lead free solder (Sn-3Ag-0.5 Cu) 245°C ±5°C
5.焊接效果 (無預熱) Soldering Effect (Non-Preheat)	外觀 Appearance	將引線浸入熔融焊料中，距離引線根部末端 1.5 mm (+5/-0 mm)。 持續時間/焊料溫度：10±1秒 / 260°C±5°C 預處理：電容器在 85°C±2°C 下儲存 1 小時，然後在初始測量之前在室溫下放置 24 小時。 後處理：電容器在室溫下儲存 1~2 小時。 The lead wires are immersed in molten solder up to 1.5 mm (+5/-0 mm) from the end of the root of lead wire. Duration/Solder Temperature: 10 ±1 seconds / 260°C ±5°C Pre-treatment: Capacitor is stored at 85°C±2°C for 1 hour and then placed at room condition for 24 hours before initial measurements. Post-treatment: Capacitor is stored for 1~2 hours at room condition.
	無明顯缺陷 No marked defect	
	容值 Capacitance	
	Within ±10%	
	絕緣電阻 IR	
	≥ 1000 MΩ	
	介質強度 Dielectric Strength	
Per Item 1		
6.焊接效果 (預熱) Soldering Effect (Preheat)	外觀 Appearance	電容器儲存在溫度 120°C+0/-5°C，60+0/-5秒。然後，如上圖所示，將引線浸入熔融焊料中，距離引線根部末端 1.5 mm (+5/-0 mm)。 持續時間/焊料溫度：7.5+0/-1秒 / 260°C±5°C 預處理：電容器在 85°C±2°C 下儲存 1 小時，然後在初始測量之前在室溫下放置 24 小時。 後處理：電容器在室溫下儲存 1~2 小時。 Capacitor is stored at 120°C +0/-5°C for 60 +0/-5 seconds. Then, as shown in the figure above, the lead wires are immersed in molten solder up to 1.5 mm (+5/-0mm) from the end of the root of lead wire. Duration/Solder Temperature: 7.5+0/-1 seconds / 260°C ±5°C Pre-treatment: Capacitor is stored at 85°C±2°C for 1 hour and then placed at room condition for 24 hours before initial measurements. Post-treatment: Capacitor is stored for 1~2 hours at room condition.
	無明顯缺陷 No marked defect	
	容值 Capacitance	
	Within ±10%	
	絕緣電阻 IR	
	≥ 1000 MΩ	
	介質強度 Dielectric Strength	
Per Item 1		



■ 檢驗要求 Inspection requirements

試驗項目 Test items	性能要求 Performance requirements	試驗條件 Conditions of test							
7. 偏濕 Biased Humidity	外觀 Appearance	穩態濕度 Steady State Humidity	負載濕度 Load Humidity						
	無明顯缺陷 No marked defect	濕度 90~95% · 溫度為 40°C, 持續 500±12小時。 後處理： 電容器在室溫下儲存 1~2 小時。 90 to 95% humidity at 40°C ±2°C for 500±12 hours. Post-treatment: Capacitor is stored for 1 to 2 hours at room condition.	濕度 90~95% · 溫度為 40°C, 持續 500±12小時 · 施加額定電壓。 後處理： 電容器在室溫下儲存 1~2 小時。 90 to 95% humidity at 40°C ±2°C for 500±12 hours with full rated voltage applied. Post-treatment: Capacitor is stored for 1 to 2 hours at room condition.						
	容值 Capacitance								
	Y5P Within ±10%, Y5U Within ±20% Y5V Within ±30%								
	絕緣電阻 IR								
	≥ 3000MΩ								
	介質強度 Dielectric Strength								
Per Item 1									
8. 高溫壽命 High Temperature Life	外觀 Appearance	衝擊電壓：在壽命試驗之前，每個電容器都要經受三次 8 kv 的衝擊。 Impulse Voltage: Each individual capacitor is subjected to three 8 kv impulses prior to life testing.							
	無明顯缺陷 No marked defect								
	容值 Capacitance								
	Within ±20%								
	絕緣電阻 IR								
	≥ 3000MΩ								
	介質強度 Dielectric Strength								
Per Item 1									
9. 火焰試驗 Flame Test	電容器火焰熄滅如下： The capacitor flame extinguishes as follows	電容器暴露在火焰中15秒，然後移除15秒。 該試驗重複5個循環。 The capacitor is exposed to a flame for 15 seconds and then removed for 15 seconds. This test is repeated for 5 cycles.							
	<table border="1"> <thead> <tr> <th>Cycle</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>1 ~ 4</td> <td>≤ 30 seconds</td> </tr> <tr> <td>5</td> <td>≤ 60 seconds</td> </tr> </tbody> </table>	Cycle	Time	1 ~ 4	≤ 30 seconds	5	≤ 60 seconds		
	Cycle	Time							
1 ~ 4	≤ 30 seconds								
5	≤ 60 seconds								

■ 檢驗要求 Inspection requirements

試驗項目 Test items	性能要求 Performance requirements	試驗條件 Conditions of test																				
10.主動可燃性 Active Flammability	紗布不應著火 The cheesecloth should not ignite.	<p>電容器被單獨包裹在至少一層但不超過兩層完整的紗布中。 然後對其進行 20 次放電。連續放電之間的時間為 5 秒。 最後一次放電後，VAC 保持 2 分鐘。</p> <p>The capacitors are individually wrapped in at least one, but not more than two, complete layers of cheesecloth. They are then subjected to 20 discharges. The interval between successive discharges is 5 seconds. The VAC is maintained for 2 minutes after the last discharge.</p> <table border="1"> <tr> <td>C_{1,2}</td> <td>1μF ±10%</td> <td>C₃</td> <td>0.033μF ±5% 10kV</td> </tr> <tr> <td>L₁₋₄</td> <td>1.5Mh ±20% 16A Rod core choke</td> <td>C_X</td> <td>Test Capacitor</td> </tr> <tr> <td>R</td> <td>100Ω ±5%</td> <td>V_{AC}</td> <td>VR ±5%</td> </tr> <tr> <td>C_t</td> <td>3μF ±5% 10 kV</td> <td>V_R</td> <td>Rated Voltage</td> </tr> <tr> <td>F</td> <td>Fuse, Rated 10A</td> <td>V_t</td> <td>Voltage applied to C_t</td> </tr> </table>	C _{1,2}	1μF ±10%	C ₃	0.033μF ±5% 10kV	L ₁₋₄	1.5Mh ±20% 16A Rod core choke	C _X	Test Capacitor	R	100Ω ±5%	V _{AC}	VR ±5%	C _t	3μF ±5% 10 kV	V _R	Rated Voltage	F	Fuse, Rated 10A	V _t	Voltage applied to C _t
C _{1,2}	1μF ±10%	C ₃	0.033μF ±5% 10kV																			
L ₁₋₄	1.5Mh ±20% 16A Rod core choke	C _X	Test Capacitor																			
R	100Ω ±5%	V _{AC}	VR ±5%																			
C _t	3μF ±5% 10 kV	V _R	Rated Voltage																			
F	Fuse, Rated 10A	V _t	Voltage applied to C _t																			
11.溫度循環 Temperature Cycle	外觀 Appearance	<p>電容器經受 5 次溫度循環。</p> <p>The capacitor is subjected to 5 temperature cycles.</p> <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature</th> <th>Dwell Time</th> <th>Transition Time</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-25 +0/-3°C</td> <td>30 minutes</td> <td rowspan="4">3 minutes</td> </tr> <tr> <td>2</td> <td>Room Temperature</td> <td>3 minutes</td> </tr> <tr> <td>3</td> <td>-125 +3/-0°C</td> <td>30 minutes</td> </tr> <tr> <td>4</td> <td>Room Temperature</td> <td>3 minutes</td> </tr> </tbody> </table> <p>預處理：電容器應在 85±2 的溫度下儲存1小時，然後在室溫下放置 24±2 小時。 後處理：電容器在室溫下儲存 1~2 小時。</p> <p>Pre-treatment: Capacitor shall be stored at 85 ±2 for 1 hour then placed at room condition1 for 24 ±2 hours. Post-treatment: Capacitor is stored for 1 to 2 hours at room condition.</p>	Step	Temperature	Dwell Time	Transition Time	1	-25 +0/-3°C	30 minutes	3 minutes	2	Room Temperature	3 minutes	3	-125 +3/-0°C	30 minutes	4	Room Temperature	3 minutes			
	Step		Temperature	Dwell Time	Transition Time																	
	1		-25 +0/-3°C	30 minutes	3 minutes																	
	2		Room Temperature	3 minutes																		
	3		-125 +3/-0°C	30 minutes																		
	4		Room Temperature	3 minutes																		
	無明顯缺陷 No marked defect																					
	容值 Capacitance																					
	Y5P and Y5U Within ±20% Y5V Within ±30%																					
損耗因素 DF																						
Y5P DF ≤ 5%, Y5U and Y5V DF ≤ 7.5%,																						
絕緣電阻 IR																						
≥ 3000MΩ																						
介質強度 Dielectric Strength																						
Per Item 1																						

"Room Condition" is defined as follows: Temperature: 15 ~ 35°C/Humidity: 45 ~ 75%/Atmospheric Pressure: 86 ~ 106 kPa.

■ CD & CE 型安全標準認證表 Approval sheets for safety standard of type CD & CE

認證標志 Approval marks	子類 Subclass	證書號 Certificate	氣候類別 Climatic Category	容量範圍 Capacitance Range	額定電壓 Rated Voltage
	X1/Y1 (CD)	E302125	25/125/21/B	10 ~ 4700 pF	X1 440Vac, Y1 400Vac
	X1/Y2 (CE)			100 ~ 10000 pF	X1 400Vac, Y2 300Vac
	X1/Y1 (CD)	40050259	25/125/21/B	10 ~ 4700 pF	X1 440Vac, Y1 400Vac
	X1/Y2 (CE)	40050253		100 ~ 10000 pF	X1 400Vac, Y2 300Vac
	X1/Y1 (CD)	CQC19001219045	25/125/21/B	10 ~ 4700 pF	X1 440Vac, Y1 400Vac
	X1/Y2 (CE)	CQC19001219046		100 ~ 10000 pF	X1 400Vac, Y2 300Vac

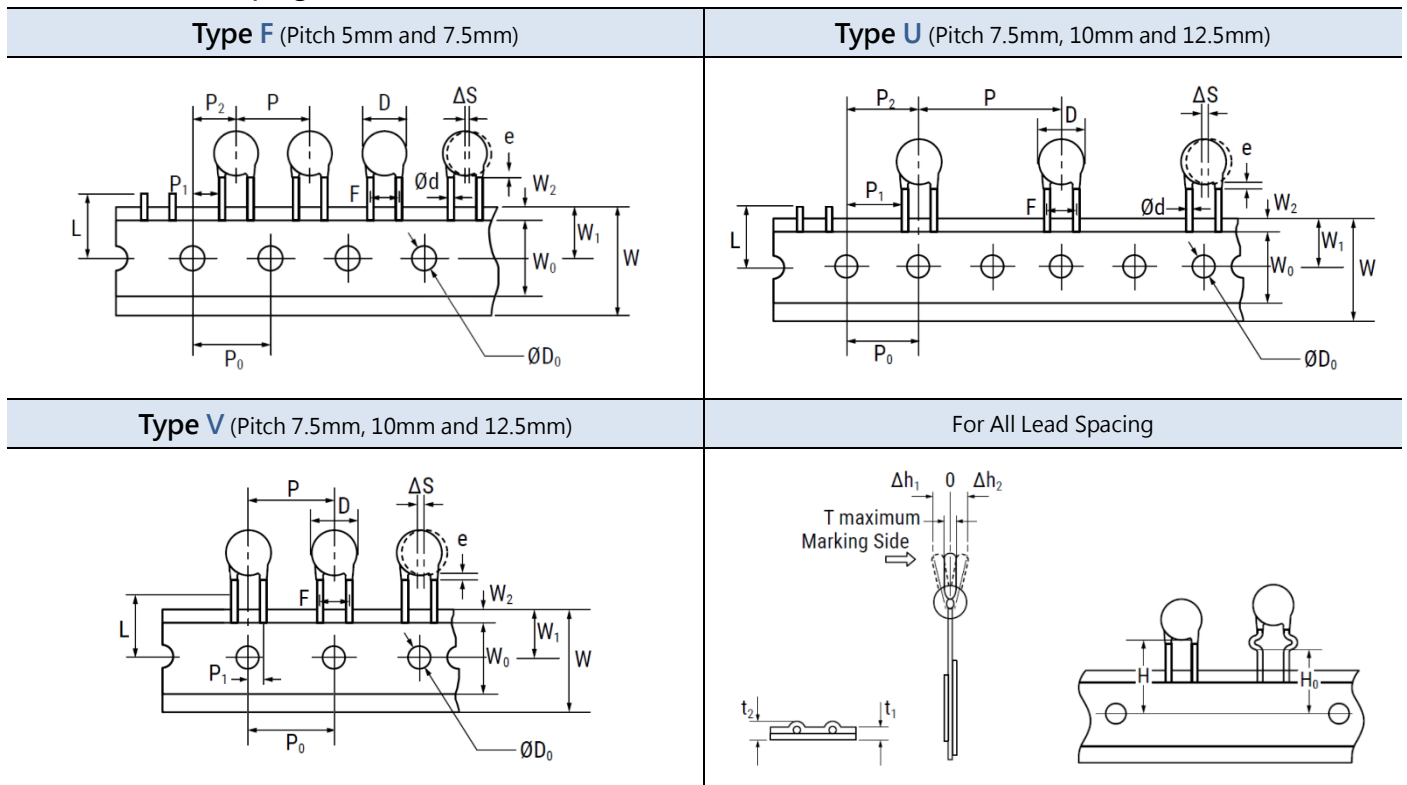
■ 儲存條件和期限 Storage conditions and duration

包裝好的電容器應存放在清潔、通風、乾燥的庫房內，不靠近熱源，不受陽光直射，嚴禁與化學試劑、酸和有害氣體一起儲存。T_{stg} = +5°C 至 +35°C，最大相對濕度為 75%，無冷凝，儲存一年。

Packaged capacitors should be kept in clean, ventilated, dry coffers, not near the heat source, not subject to direct sunlight, is strictly prohibited and chemical reagents, acid and harmful gas storage together.

T_{stg} = +5°C to +35°C with relative humidity of maximum 75% without condensation, storage for one year.

■ 引線編帶 Lead Taping



■ 編帶規格 Taping Specification

項目 Item	尺寸單位 Dimensions in mm					
	代碼 Code	F		U	V	
編帶樣式 Type	代碼 Code	F		U	V	
輸送孔間距 Guide Pitch	P ₀	12.7 ±0.3			15.0 ±0.3	
編帶間距 Taping Pitch	P	12.7 ±1.0	12.7 ±1.0	25.4 ±2.0	15.0 ±2.0	15.0 ±2.0
引線間距 Lead Spacing	F	5.0 ±0.5	7.5 ±0.5	10.0 ±0.5	7.5 ±0.5	10.0 ±0.5
孔中心-引線中心 Sprocket Hole Center to Lead Center	P ₁	3.85 ±0.7	2.6 ±0.7	7.7 ±1.5	3.75 ±0.7	5.0 ±0.7
孔中心-元件中心 Sprocket Hole Center to Component	P ₂	6.35 ±1.5	6.35 ±1.5	12.7 ±1.5	--	--
對輸送孔的高度偏移 Feed hole vertical position	W ₁	9.0 ±0.5				
粘帶邊距 Hold-down tape position	W ₂	3.0 Maximum				
引線彎曲位置高度 Taping height for straight of crimp	H ₀	16 ±0.5				
直引線位置高度 Taping height for straight	H	20 +1.5/-1.5				
本體偏斜 Alignment to Direction	ΔS	2.0 Maximum				
本體傾斜 Alignment to Direction	Δh ₁ · Δh ₂	2.0 Maximum				
輸送孔直徑 Diameter of feed hole	D ₀	4.0 ±0.3				
切斷導線長度 Length of snipped lead	L	11.0 Maximum				
載帶厚度 Carrier Tape Thickness	t ₁	0.7 ±0.2				
總厚度 Total Thickness (Carrier Tape, and Lead)	t ₂	1.5 Maximum				
載帶寬度 Width of base tape	W	18 ±0.5				
粘帶寬度 Width of hold-down tape	W ₀	8.0 ±0.2				

