

 威迪電子(東莞)有限公司		制作日期	2011-10-25	版本	06
文件名稱	MPT Approval Sheet (Metallized Polypropylene Film Capacitor(Axial And Tubular))	文件編號	WD-AP-08	頁次	08/01

1. Scope :

This specification applied to capacitor for type MPT(Metallized Polypropylene Film Capacitor r(Axial And Tubular))

2. Temperature

2-1 Rated Temperature : 85°C

2-2 Rated Temperature Range : -40 ~ +105 (+85°C to +105°C decreasing factor 1.25% per °C for VR(DC))

3. Capacitance Range :

0.001uF ~ 12 uF

4. Capacitance Tolerance :

±2%(G)、±3%(I)、±5%(J)、±10%(K)、±20%(M)

5. Rated Voltage :

100VDC、250VDC、400VDC、500VDC、630VDC、1KVDC

6. Winday Part No. :

 1 2 3 4 5 6 7 8 9

 (tape) (Internal use) (capacitance) (tolerance) (rated voltage) (Dc/Ac)(lead forming) (body width) (lead length)

6-1 tape :

Code	SMET	SMPT	SMEA	SMPA
Tape	MET	MPT	MEA	MPA


6-2 Internal use

6-3 Capacitance :

Code	102	103	104	105	106
Capacitance	0.001uF	0.01uF	0.1uF	1uF	10 uF

6-4 Tolerance :

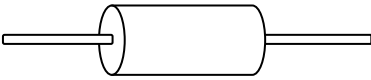
Code	G	I	J	K	M
Tolerance	±2%	±3%	±5%	±10%	±20%

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6-5 Rated Voltage : Showing the real working voltage indicated. For example : 0630 -> 630V, 1000 -> 1KV °

6-6 D→DC ; A→AC

6-7 Lead forming :

Code	B	T	S
Lead Forming		TAPING	Customer Special Require

6-8 Body Width(max) : Showing the capacitor lead pitch, For example :

Code	15	21	26	33	37	47
Width (mm)	15mm	21mm	26mm	33mm	37mm	47mm

6-9 Lead length : Showing the capacitor lead Length, For example :

Code	35
Length(mm)	35mm

7. Specifications (IEC 60384-16)

No	Test items	Performance	Test Method
7-1	Withstand voltage (Between Terminals)	Shall be no abnormality	150% Of Rated Voltage, 60sec.
	Between terminal and Enclosure	Shall be no abnormality	UR×200%+1000VDC, 60sec.

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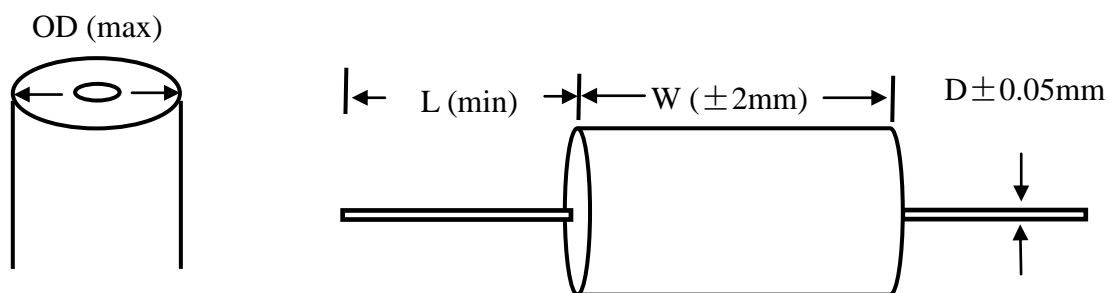
No	Test items	Performance	Test Method
7-2	Insulation resistance (Between Terminals)	$C_R \leq 0.33\mu F$ $IR \geq 15,000M\Omega$ $C_R > 0.33\mu F$ $IR \geq 5,000 M\Omega \div C(\mu F)$	Measured at $100 \pm 15VDC$, For 60sec / $25^\circ C$
7-3	Capacitance	Within the tolerance specified	1KHz, 1Vrms Max. at $25^\circ C$
7-4	Dissipation Factor	0.001 (0.1%) Max.	1KHz, 1Vrms Max. at $25^\circ C$
7-5	Tense Strength of Terminal	No wire breakage and No Damage of Capacitor	1. Load Force : 1.0 Kg 2. Holding Time : 10 ± 1 sec
7-6	Bending Strength of Terminal	No wire breakage and No Damage of Capacitor	1. Load Force : 0.5 Kg 2. Bending Time : $4 \times 90^\circ$ in 5sec
7-7	Solder-ability	95% Of The Surface Tinning	a. Solder temperature: $270 \pm 5^\circ C$ b. Solder time: 2 ± 0.5 sec
7-8	Heat Shock test	(1) Appearance : No Visible Damage (2) Withstand Voltage : Normal (3) Capacitance Change : $\leq \pm 3\%$ of The Initial Value	The terminal of capacitor shall be immersed in the melting solder. a. Solder temperature: $270 \pm 5^\circ C$ b. Solder time: 3 ± 0.5 sec c. Test Voltage: 100% of The Rate Voltage For 1min.

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No	Test items	Performance	Test Method
7-9	Cold Resistance	(1) Appearance : No Visible Damage (2) Capacitance Change : $\leq 0\sim -10\%$ of The Initial Value	a. Test Temperature: -40°C b. Test Times: 2Hrs
7-10	Dry Heat Resistance	(1) Appearance : No Visible Damage (2) Withstand Voltage : Normal (3) Capacitance Change : $\leq +5\sim -2\%$ Of The Initial Value	a. TEST TEMPERATURE: $85^{\circ}\text{C} \pm 2^{\circ}\text{C}$ b. Test Times: 2Hrs
7-11	Humidity Resistance	(1) Appearance : No Visible Damage (2) Withstand Voltage : Normal (3) Capacitance Change : $\leq \pm 10\%$ of The Initial Value (4) Insulation Resistance: $\geq 50\%$ of the rated value (5) DF ($\tan\delta$) ≤ 0.001	a. TEST TEMPERATURE: $40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ b. RELATIVE HUMIDITY: $90 \sim 95\%$ c. Test Times: 240 \pm 8 HRS d. TEST VOLTAGE: 125% of The Rated Voltage for 1 min.
7-12	Heat Resistance (Charge & Discharge)	(1) Appearance : No Visible Damage (2) DF ($\tan\delta$) ≤ 0.001 (3) Capacitance Change : $\pm 10\%$ of The Initial Value (4) Insulation Resistance: $\geq 50\%$ of the rated value	a. Test Voltage : Rated Voltage Charge for 2sec. Discharge for 2 sec. Repeated For 1000 \pm 100 cycles b. Test Temperature: $85^{\circ}\text{C} \pm 2^{\circ}\text{C}$
7-13	Heat Resistance (Continuous)	(1) Appearance : No Visible Damage (2) DF ($\tan\delta$) ≤ 0.001 (3) Capacitance Change : $\pm 10\%$ of The Initial Value (4) Insulation Resistance: $\geq 50\%$ of the rated value	a. Test Temperature: $85^{\circ}\text{C} \pm 2^{\circ}\text{C}$ b. Test Times: 500 \pm 24Hrs c. For 2 hours after voltage test d. TEST VOLTAGE: 125% of The Rated Voltage for 1 min.

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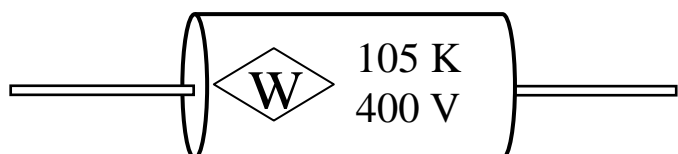
8. Dimensions:




CAPACITOR BODY SIZE (Unit:mm)					
CAP	RV	W (±2mm)	OD (max)	L (min)	D (±0.05)

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9. Marking Example :



	WINDAY CO. LOGO
1 0 5	CAPACITANCE
K	CAPACITANCE TOLERANCE
400	RATED VOLTAGE
V	DC VOLTAGE

10.Storage conditions and duration

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.

Capacitor at a temperature within the range 20 ~ 25 °C, humidity less than 50% of the state of storage for one year.



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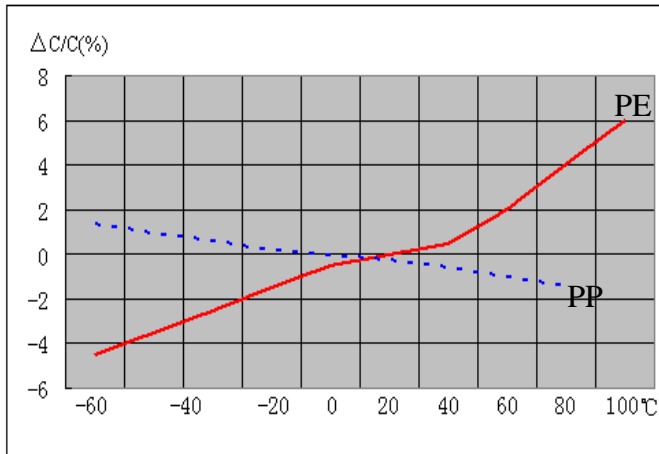
文件編號

WD-AP-001

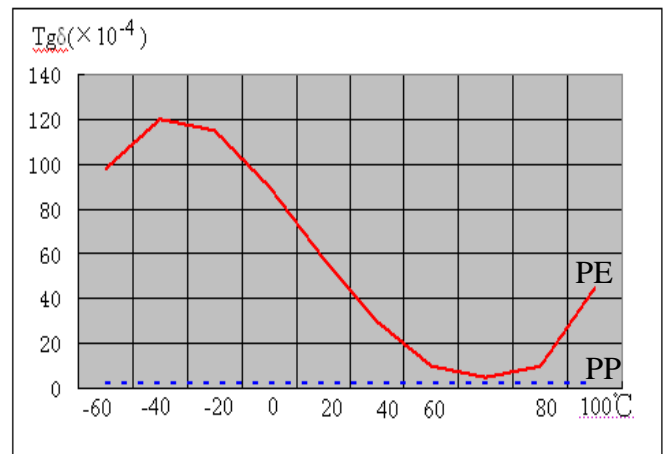
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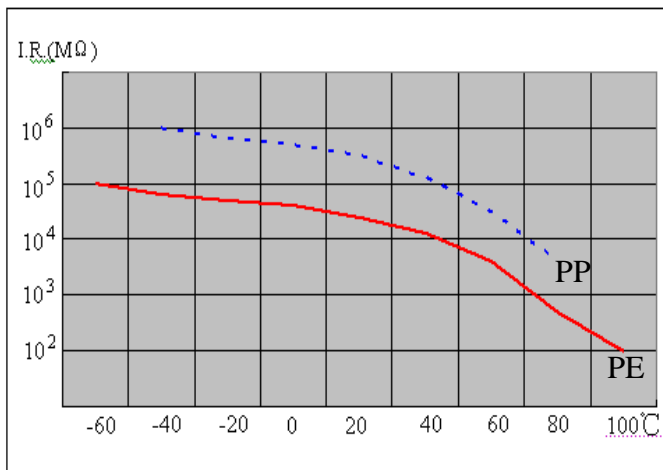
11. Characteristic curve



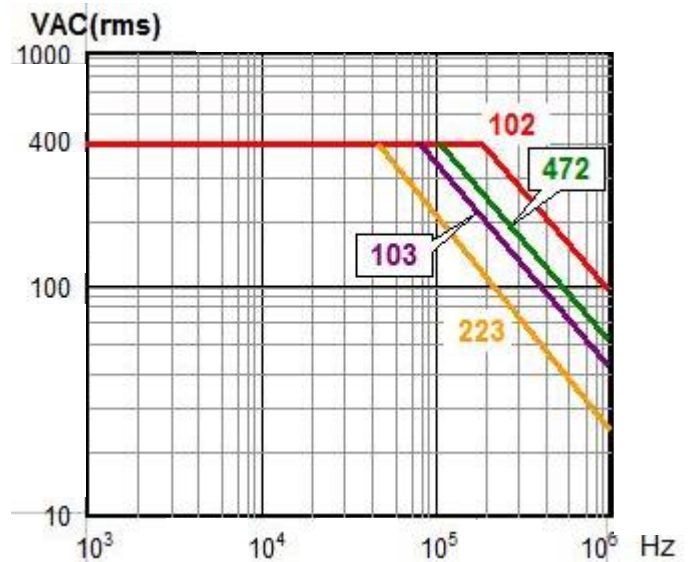
Capacitance vs. temperature at 1kHz



Dissipation factor vs. temperature at 1kHz



I.R. vs. temperature



Voltage and frequency

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12.Sample Test Record:

CUSTOMER	WD	P/N	Part name				QUAN TITY		
	TDI	P/N	Description						
SMPLING	MILSTD-1916DOL-UOS-OFULL INSP				VL 允收水準	N /	A /	R	
PLAN					Electricity:IV	/	/		
					Apperance: IV	/	/		
Sample no	Sepec limit	One	Two	Three	Four	Five	Six	Seven	Eight
Capacitance value	()-()NF								
Dissipatancefactor	≤ ()%								
Voltage Proof	()VDC For60Sec								
Insulation resistance	≥ ()MΩ (100VDC, 60Sec)								
Width	()mm(±2mm)								
OD	<()mm								
Lead Pitch	()mm(±0.5mm)								
Lead Size	> ()mm								
LeadDiameter	()mm(±0.05mm)								
Test instrument	1V	Solder heat resitance				Soider temperature	270±5°C		
						Dipping time	2±0.5Second		
Test Firequency	1KHz					Dipping depth	>95%		
						result	<input type="checkbox"/> OK <input type="checkbox"/> NG		
Result	<input type="checkbox"/> ROHS <input type="checkbox"/> ACCEPT <input type="checkbox"/> REJECT								
Remark									
Examin				Teste					