



Aritec Electronics Co., Ltd.

No.22 Chalongkrung 31 Lamplatiew Ladkrabang, Bangkok 10520

Phone: 66-23261215-7, Fax: 66-23260727, Email: aritec@loxinfo.co.th

POLYESTER FILM INDUCTIVE CAPACITOR (PEI)

CONTENTS

1. SCOPE -----	2
2. OPERATING TEMPERATURE-----	2
3. CAPACITANCE RANGE-----	2
4. CAPACITANCE TOLERANCE-----	2
5. RATED VOLTAGE-----	2
6. SPECIFICATIONS-----	2~4
7. MEASURING & TESTING EQUIPMENTS-----	4
8. MARKING-----	4
9. DIMENSIONS-----	5~6



ARITEC ELECTRONICS CO., LTD.
POLYESTER FILM INDUCTIVE CAPACITOR (PEI)

1. SCOPE:

This specification applied to capacitor for type PEI
(POLYESTER FILM INDUCTIVE CAPACITOR)

2. OPERATING TEMPERATURE:

- 40 °C ~ + 85 °C

3. CAPACITANCE RANGE:

0.001μ F ~ 0.47 μ F

4. CAPACITANCE TOLERANCE:

±1% (F) ±2% (G) ±2.5% (H) ±3% (I)
±5% (J) ±10% (K) ±20% (M)

5. RATED VOLTAGE:

50V 100V 250V 400V

6. SPECIFICATIONS:

NO.	TEST ITEMS		PERFORMANCE		METHOD OF TEST (JIS C5102)
6-1	Withstand voltage	Between Terminals	Shall be no abnormality		Apply 2.0 times of rated voltage For 60 sec. Charge/discharge Current must be 1 A max.
		Between Terminals & enclosure			Apply 2.0 times of rated voltage For 1 to 5 sec.
6-2	Insulation Resistance	Between Terminals	≤ 0.33 μ F	≥ 30000 M Ω	Apply rated voltage ± 15% for 60 sec. When rated voltage under 100V. Apply 100V ± 15% when rated Voltage Voltage from 100 to 500V at 20 °C
		Between Terminals & enclosure	>0.33 μ F	≥ 10000 M Ω	
6-3	Capacitance		Within the tolerance specified.		a. Measuring frequency: 1KHz ± 10% b. Measuring Voltage: 1 VRMS. Max. at 20 °C
6-4	Dissipation Factor		0.01 (1.0%) Max.		a. Measuring frequency: 1KHz ±10% b. Measuring Voltage: 1 VRMS. Max. at 20 °C
6-5	Strength of Terminal	Tensile Strength	Shall be no abnormality		Wire diameter 0.5-0.8 mm load 1kgs. 0.8-1.2mm load 2.5kgs for 30 ± 5sec.
		Bending Strength			Wire diameter 0.5-0.8 mm load 1kgs. 0.8-1.2mm load 0.5kgs. 4 x 90°



ARITEC ELECTRONICS CO., LTD.
POLYESTER FILM INDUCTIVE CAPACITOR (PEI)

No.	TEST ITEMS		PERFORMANCE	METHOD OF TESTING (JIS C5102)
6-6	Vibration proof		Element shall be not short-circuited nor opened, its connecting condition shall be no abnormality on appearance after testing.	Class (A) and appendix 2 of JIS C 51111 a. Frequency change: 10c/s to 50c/s b. Vibration distance: 1.5mm c. Testing duration: 2 hours.
6-7	Solderability		After the immersion lead wire is covered new solder of 75% around lead surface by dipping point.	a. Solder temperature: 230 ±5°C b. Dipping time: 2 ±0.5sec
6-8	Solder Heat Resistance	Appearance	Shall be no abnormality	a. Solder temperature: 270 ±5°C b. Dipping time: 3 ±0.5sec c. Dipping depth: 2-2.5mm from root of capacitor.
		Withstand Voltage	Shall satisfy No 6-1	
		Capacitance Variation	Within ±3% of the value before test.	
6-9	Cold proof	Capacitance variation	Within +5% ~ 0% of the value before test	Testing temperature: -40 ± 2°C
6-10	Heat proof	Insulation resistance	≤ 0.33 μ F ≥ 900 M Ω at 85°C	Testing temperature: 85 ± 2°C
		Capacitance variation	> 0.33 μ F ≥ 300 M Ω at 85°C	
6-11	Humidity Test	Appearance	Shall be no abnormality	a. Temperature: 40 ± 2°C b. Humidity: 90~95% RH c. Testing time: 500 ± 24Hrs. d. Apply voltage: Rated voltage After testing, leave it for about 16 hrs. at standard condition Withstand voltage is 130% rate voltage, 60sec
		Withstand voltage	Shall be no abnormality	
		Insulation Resistance	≤ 0.33 μ F ≥ 2700 M Ω	
			> 0.33 μ F ≥ 900 M Ω	
		Dissipation factor	0.011 (1.1%) Max	
Capacitance variation	Within ±10% of the value before test.			



ARITEC ELECTRONICS CO., LTD.
POLYESTER FILM INDUCTIVE CAPACITOR (PEI)

NO.	TEST ITEMS	PERFORMANCE	METHOD OF TESTING (JIS C5102)	
6-12	High temperature loading	Appearance	a. Temperature: $85 \pm 2^{\circ}\text{C}$ b. Testing time: 1000 ± 48 Hrs. c. Apply voltage: The voltage is 140% of rated voltage.	
		Insulation resistance		$\leq 0.33 \mu\text{F}$
				$\geq 2700 \text{ M}\Omega$
		Dissipation factor		$> 0.33 \mu\text{F}$ $\geq 900 \text{ M}\Omega$ 0.011(1.1%) Max.
Capacitance variation	Within $\pm 7\%$ of the value before test.			

7. MEASURING & TESTING EQUIPMENTS:

7.1 Capacitance and Dissipation Factor

- a. Hewlett Packard 4284A precision LCR Meter.
- b. Chen Hwa 1063 LCR Meter.
- c. Tonghui LCR-TH2613 Meter.

7.2 Insulation Resistance:

- a. Hewlett Packard 4329A High Resistance Meter.
- b. Tonghui TH2681 Meter.

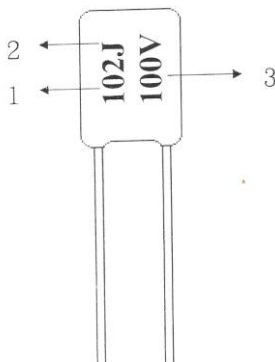
7.3 Environmental Test Chamber:

- a. P E C MC-710P
- c. C Sun HCC-2
- d. WANG TAT SCO-3

7.4 Dielectric Strength

TOPWARD TPT-500 Puncture Insulation tester.

8 MARKING:



- 1. Normal Capacitance in PF
- 2. Capacitance Tolerance
- 3. DC rated Voltage



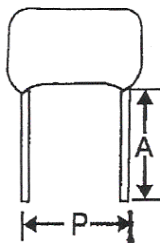
ARITEC ELECTRONICS CO., LTD.
POLYESTER FILM INDUCTIVE CAPACITOR (PEI)

PEI104J2E

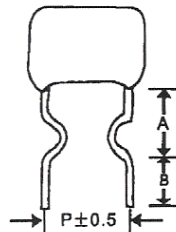
RV CAP SIZE (PF)	50 / 100VDC				250VDC				400VDC			
	W	T	H	P	W	T	H	P	W	T	H	P
333	7.5	4.0	13.0	5.0	9.0	5.0	13.0	5.0	9.0	6.0	14.0	6.5
393	8.0	1.0	13.0	5.0	9.0	5.0	13.0	6.0	9.5	6.0	14.0	6.5
473	8.5	5.0	13.0	6.0	10.0	6.0	13.0	6.0	12.0	7.0	16.0	8.0
563	9.0	5.0	13.0	6.0	11.0	6.0	13.0	6.0	11.0	6.5	15.0	9.0
683	9.5	5.0	13.0	6.5	12.0	7.0	13.0	7.0	12.5	7.5	16.0	9.0
823	10.0	5.0	14.0	7.0	13.0	7.0	14.0	7.0	12.5	8.0	15.5	9.0
104	12.5	6.0	14.0	7.0	10.0	5.5	12.5	7.0				
124	11.0	6.0	14.0	7.0								
154	12.0	7.0	15.0	7.0								
184	12.0	7.5	16.0	7.0								
224	12.5	8.0	16.0	7.0								
274	13.5	9.0	16.0	8.0								
334	13.0	7.0	12.0	8.5								
474	16.0	10.0	19.0	9.0								

*Size for reference in mm (MAX)

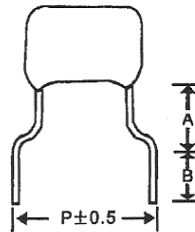
LEAD TYPE:



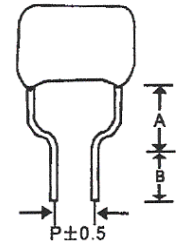
Straight Lead



Inward Kink



Outward kink



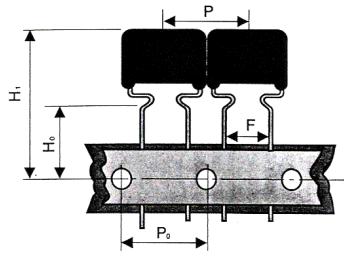
Narrow Kink



ARITEC ELECTRONICS CO., LTD.
POLYESTER FILM INDUCTIVE CAPACITOR (PEI)

**TAPING ON REELS OR AMMO PACKING
FOR AUTOMATIC INSERTION**

Style A



Style C