Aillen®
EXPERT IN PASSIVE PARTS

ALTERNATION HISTORY RECORDS 变更记录

Date 日期	Version 版本	Mark 标记	Page 页码	Description 描述	Drafter 制定者	Approver 审批者
2024-05-06	A	/	/	First release 首次发行	Doris Chang	/

1. Application

This specification applied to capacitor for type MEB(Metallized Polypropylene Film Capacitor(Box))

Reference Standard GB/T 7332 (IEC 60384-2)

2. Feature&Application

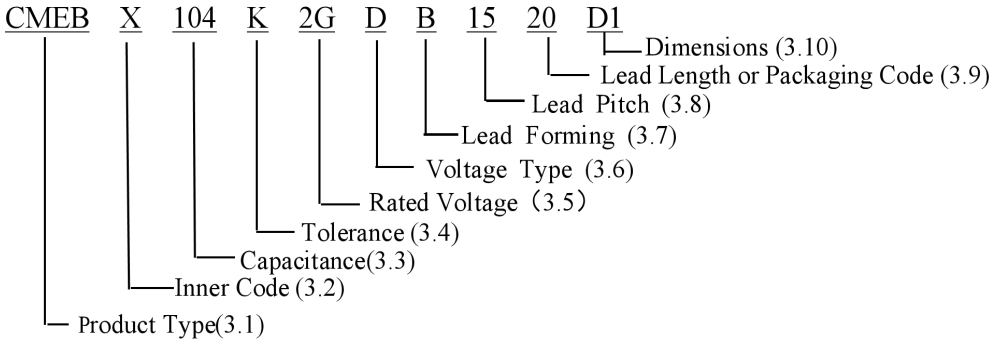
2-1 Feature

- Metallized polyester film
- Wide capacitance range, small size,and light weight
- Long life due to self-healing effect
- Outer Coating: Flame retarding plastic case and epoxy filled

2-2 Recommended Application

- General purpose usage
- Blocking, by-passing, filtering, timing
- Fluorescent lamp, HID lamp ballast
- Air conditioner, Fan, Motor running & Other industrial equipment

3. Part Number System



3-1 tape：

Code	CMEF	CMPP	CMEB	CMPB
Type	MEF	MPP	MEB	MPB

3-2 Inner Code

3-3 Capacitance：

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

3-4 Tolerance：

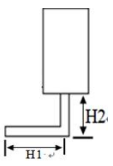
Code	H	J	K
Tolerance	±3%	±5%	±10%

3-5 Rated Voltage：

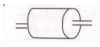
Code	2A	2E	2G	2W	2J
Voltage	100	250	400	450	630

3-6 Voltage Tyoe：D→DC；A→AC

3-7 Lead forming：

Code	B	K	R	U	W	S	T
Lead Forming							Taping

3-8 Lead Pitch：

Code	08	10	15	20	22	27	31	AX
Pitch(mm)	7.5mm	10mm	15mm	20mm	22mm	27mm	31mm	Axial Lead 

3-9 Lead length or Packaging Code：

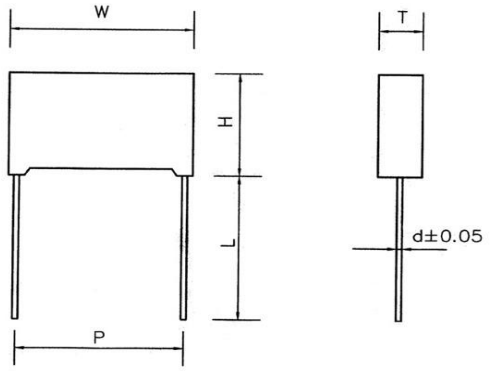
Code	35	04	45	10	15	20
Bulk and Cut Length(mm)	3.5mm	4mm	4.5mm	10mm	15mm	17mm Min.

Code	T1	T5	T7
Taping	Straight foot Taping P3=12.7mm (For pitch=5.0/7.5mm)	Straight foot Taping P3=25.4mm(For pitch=10/15mm)	Straight foot Taping P0=12.7mm(For pitch=22.5/27.5mm)

4. Specification

Reference Standard	GB/T 7332 (IEC 60384-2)
Climatic Category	55/105/56
Rated Temperature Range	-40℃~ 105℃ (+85℃ to +105℃ decreasing factor 1.25% per ℃ for Rated Voltage)
Rated Voltage	100VDC、250VDC、400VDC、630VDC
Capacitance Range	0.01μF ~ 10μF
Capacitance Tolerance	±3%(H)、±5%(J)、±10%(K)
Voltage Proof	Terminal to Terminal:(at20±5℃) 1.6U_R(5s) (cut off current 10mA)
Dissipation Factor	1%(Max.) at 1KHz,20℃
Insulation Resistance	Terminal to Terminal: (at20℃± 5℃), Voltage charge time : 1 minute. Voltage charge : 100VDC. CR≤0.33μF,IR≥15000MΩ; CR＞0.33μF,IR≥5000MΩ×μF

5. Specification Sheet



P/N	Rated voltage	Capacitance (μF)	Size Max(mm)				
			W	H	T	P±1	Φd±0.08
CMEBX104K2ADB1020C2	100VDC	0.10	13.0	11.0	5.0	10	0.60
CMEBX124K2ADB1020C2	100VDC	0.12	13.0	11.0	5.0	10	0.60
CMEBX154K2ADB1020C2	100VDC	0.15	13.0	11.0	5.0	10	0.60
CMEBX184K2ADB1020C2	100VDC	0.18	13.0	11.0	5.0	10	0.60
CMEBX224K2ADB1020C2	100VDC	0.22	13.0	11.0	5.0	10	0.60

CMEBX274K2ADB1020C2	100VDC	0.27	13.0	11.0	5.0	10	0.60
CMEBX334K2ADB1020C2	100VDC	0.33	13.0	11.0	5.0	10	0.60
CMEBX394K2ADB1020C2	100VDC	0.39	13.0	11.0	5.0	10	0.60
CMEBX474K2ADB1020C2	100VDC	0.47	13.0	11.0	5.0	10	0.60
CMEBX564K2ADB1020C3	100VDC	0.56	13.0	12.0	6.0	10	0.60
CMEBX684K2ADB1020C3	100VDC	0.68	13.0	12.0	6.0	10	0.60
CMEBX824K2ADB1020C4	100VDC	0.82	13.0	13.0	7.0	10	0.60
CMEBX105K2ADB1020C4	100VDC	1.0	13.0	13.0	7.0	10	0.60
CMEBX125K2ADB1520D2	100VDC	1.2	18.0	12.0	6.0	15	0.80
CMEBX155K2ADB1520D18	100VDC	1.5	18.0	13.0	7.0	15	0.80
CMEBX185K2ADB1520D3	100VDC	1.8	18.0	13.5	7.5	15	0.80
CMEBX225K2ADB1520D4	100VDC	2.2	18.0	14.5	8.5	15	0.80
CMEBX275K2ADB1520D5	100VDC	2.7	18.0	15.5	9.5	15	0.80
CMEBX335K2ADB1520D5	100VDC	3.3	18.0	16.0	10.0	15	0.80
CMEBX395K2ADB2220E3	100VDC	3.9	26.5	17.0	8.5	22.5	0.80
CMEBX475K2ADB2220E3	100VDC	4.7	26.5	17.0	8.5	22.5	0.80
CMEBX565K2ADB2220E4	100VDC	5.6	26.5	19.0	10.0	22.5	0.80
CMEBX685K2ADB2220E4	100VDC	6.8	26.5	19.0	10.0	22.5	0.80
CMEBX825K2ADB2220E5	100VDC	8.2	26.5	20.0	11.0	22.5	0.80
CMEBX106K2ADB2220E6	100VDC	10	26.5	22.0	12.0	22.5	0.80
CMEBX104K2EDB1020C2	250VDC	0.10	13.0	11.0	5.0	10	0.60
CMEBX124K2EDB1020C2	250VDC	0.12	13.0	11.0	5.0	10	0.60
CMEBX154K2EDB1020C2	250VDC	0.15	13.0	11.0	5.0	10	0.60
CMEBX184K2EDB1020C2	250VDC	0.18	13.0	11.0	5.0	10	0.60
CMEBX224K2EDB1020C2	250VDC	0.22	13.0	11.0	5.0	10	0.60
CMEBX274K2EDB1020C2	250VDC	0.27	13.0	11.0	5.0	10	0.60
CMEBX334K2EDB1020C3	250VDC	0.33	13.0	12.0	6.0	10	0.60
CMEBX394K2EDB1520D1	250VDC	0.39	18.0	11.0	5.0	15	0.60
CMEBX474K2EDB1520D1	250VDC	0.47	18.0	11.0	5.0	15	0.60
CMEBX564K2EDB1520D2	250VDC	0.56	18.0	12.0	6.0	15	0.80
CMEBX684K2EDB1520D2	250VDC	0.68	18.0	12.0	6.0	15	0.80
CMEBX824K2EDB1520D18	250VDC	0.82	18.0	13.0	7.0	15	0.80
CMEBX105K2EDB1520D3	250VDC	1.0	18.0	13.5	7.5	15	0.80
CMEBX125K2EDB1520D4	250VDC	1.2	18.0	14.5	8.5	15	0.80
CMEBX155K2EDB1520D5	250VDC	1.5	18.0	15.5	9.5	15	0.80

CMEBX185K2EDB2220E2	250VDC	1.8	26.5	16.5	7.0	22.5	0.80
CMEBX225K2EDB2220E3	250VDC	2.2	26.5	17.0	8.5	22.5	0.80
CMEBX275K2EDB2220E4	250VDC	2.7	26.5	19.0	10.0	22.5	0.80
CMEBX335K2EDB2220E4	250VDC	3.3	26.5	19.0	10.0	22.5	0.80
CMEBX395K2EDB2220E5	250VDC	3.9	26.5	20.0	11.0	22.5	0.80
CMEBX475K2EDB2220E6	250VDC	4.7	26.5	22.0	12.0	22.5	0.80
CMEBX565K2EDB2220E7	250VDC	5.6	26.5	23.0	13.0	22.5	0.80
CMEBX685K2EDB2720F2	250VDC	6.8	31.0	22.0	13.0	27.5	0.80
CMEBX825K2EDB2720F3	250VDC	8.2	31.0	25.0	14.0	27.5	0.80
CMEBX106K2EDB2720F4	250VDC	10	31.5	25.5	16.0	27.5	0.80
CMEBX393K2GDB1020C2	400VDC	0.039	13.0	11.0	5.0	10	0.60
CMEBX473K2GDB1020C2	400VDC	0.047	13.0	11.0	5.0	10	0.60
CMEBX563K2GDB1020C2	400VDC	0.056	13.0	11.0	5.0	10	0.60
CMEBX683K2GDB1020C2	400VDC	0.068	13.0	11.0	5.0	10	0.60
CMEBX823K2GDB1020C2	400VDC	0.082	13.0	11.0	5.0	10	0.60
CMEBX104K2GDB1020C2	400VDC	0.10	13.0	11.0	5.0	10	0.60
CMEBX124K2GDB1020C3	400VDC	0.12	13.0	12.0	6.0	10	0.60
CMEBX154K2GDB1520C3	400VDC	0.15	13.0	12.0	6.0	10	0.60
CMEBX184K2GDB1520D1	400VDC	0.18	18.0	11.0	5.0	15	0.60
CMEBX224K2GDB1520D2	400VDC	0.22	18.0	12.0	6.0	15	0.80
CMEBX274K2GDB1520D2	400VDC	0.27	18.0	12.0	6.0	15	0.80
CMEBX334K2GDB1520D18	400VDC	0.33	18.0	13.0	7.0	15	0.80
CMEBX394K2GDB1520D3	400VDC	0.39	18.0	13.5	7.5	15	0.80
CMEBX474K2GDB1520D4	400VDC	0.47	18.0	14.5	8.5	15	0.80
CMEBX564K2GDB1520D4	400VDC	0.56	18.0	14.5	8.5	15	0.80
CMEBX684K2GDB1520D5	400VDC	0.68	18.0	16.0	10.0	15	0.80
CMEBX824K2GDB2220E3	400VDC	0.82	26.5	17.0	8.5	22.5	0.80
CMEBX105K2GDB2220E3	400VDC	1.0	26.5	17.0	8.5	22.5	0.80
CMEBX125K2GDB2220E4	400VDC	1.2	26.5	19.0	10.0	22.5	0.80
CMEBX155K2GDB2220E5	400VDC	1.5	26.5	20.0	11.0	22.5	0.80
CMEBX185K2GDB2220E6	400VDC	1.8	26.5	22.0	12.0	22.5	0.80
CMEBX225K2GDB2220E7	400VDC	2.2	26.5	23.0	13.0	22.5	0.80
CMEBX275K2GDB2720F2	400VDC	2.7	31.0	22.0	13.0	27.5	0.80
CMEBX335K2GDB2720F3	400VDC	3.3	31.0	25.0	14.0	27.5	0.80
CMEBX395K2GDB2720F4	400VDC	3.9	31.5	25.5	16.0	27.5	0.80

CMEBX475K2GDB2720F4	400VDC	4.7	31.0	25.5	16.0	27.5	0.80
CMEBX103K2JDB1020C1	630VDC	0.010	13.0	9.0	4.0	10	0.60
CMEBX123K2JDB1020C1	630VDC	0.012	13.0	9.0	4.0	10	0.60
CMEBX153K2JDB1020C2	630VDC	0.015	13.0	11.0	5.0	10	0.60
CMEBX183K2JDB1020C2	630VDC	0.018	13.0	11.0	5.0	10	0.60
CMEBX223K2JDB1020C2	630VDC	0.022	13.0	11.0	5.0	10	0.60
CMEBX273K2JDB1020C2	630VDC	0.027	13.0	11.0	5.0	10	0.60
CMEBX333K2JDB1020C2	630VDC	0.033	13.0	11.0	5.0	10	0.60
CMEBX393K2JDB1020C2	630VDC	0.039	13.0	11.0	5.0	10	0.60
CMEBX473K2JDB1020C2	630VDC	0.047	13.0	11.0	5.0	10	0.60
CMEBX563K2JDB1020C3	630VDC	0.056	13.0	12.0	6.0	10	0.60
CMEBX683K2JDB1020C3	630VDC	0.068	13.0	12.0	6.0	10	0.60
CMEBX823K2JDB1020C3	630VDC	0.082	13.0	12.0	6.0	10	0.60
CMEBX104K2JDB1520D2	630VDC	0.10	18.0	12.0	6.0	15	0.80
CMEBX124K2JDB1520D2	630VDC	0.12	18.0	12.0	6.0	15	0.80
CMEBX154K2JDB1520D18	630VDC	0.15	18.0	13.0	7.0	15	0.80
CMEBX184K2JDB1520D3	630VDC	0.18	18.0	13.5	7.5	15	0.80
CMEBX224K2JDB1520D4	630VDC	0.22	18.0	14.5	8.5	15	0.80
CMEBX274K2JDB1520D5	630VDC	0.27	18.0	15.5	9.5	15	0.80
CMEBX334K2JDB1520D5	630VDC	0.33	18.0	16.0	10.0	15	0.80
CMEBX394K2JDB2220E2	630VDC	0.39	26.5	16.5	7.0	22.5	0.80
CMEBX474K2JDB2220E3	630VDC	0.47	26.5	17.0	8.5	22.5	0.80
CMEBX564K2JDB2220E4	630VDC	0.56	26.5	19.0	10.0	22.5	0.80
CMEBX684K2JDB2220E4	630VDC	0.68	26.5	19.0	10.0	22.5	0.80
CMEBX824K2JDB2220E5	630VDC	0.82	26.5	20.0	11.0	22.5	0.80
CMEBX105K2JDB2220E6	630VDC	1.0	26.5	22.0	12.0	22.5	0.80
CMEBX125K2JDB2220E7	630VDC	1.2	26.5	23.0	13.0	22.5	0.80
CMEBX155K2JDB2720F2	630VDC	1.5	31.0	22.0	13.0	27.5	0.80
CMEBX185K2JDB2720F3	630VDC	1.8	31.0	25.0	14.0	27.5	0.80
CMEBX225K2JDB2720F4	630VDC	2.2	31.5	25.5	16.0	27.5	0.80

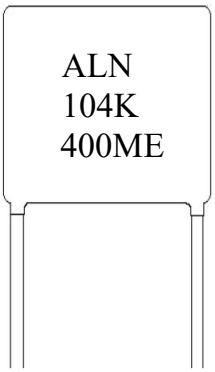
1) Specification are subject to change without notice should a safety or technical concern arise regarding the product , please be sure to contact our sales offices
2) The sizes in the above table are all general specifications. If you need other specifications, please contact us
3) All Part numbers are provided in bulk.

6. Reliability Testing

No	Test items	Performance	Test Method
6-1	Withstand voltage (Between Terminals)	Shall be no abnormality	160% Of Rated Voltage, 5sec.
	Between terminal and Enclosure	Shall be no abnormality	UR×160％, 1-5sec.
6-2	Capacitance	Within the tolerance specified	1KHz, 1Vrms Max. at 25℃
6-3	Tense Strength of Terminal	No wire breakage and No Damage of Capacitor Capacitance Change : ≤ ±5%	1. Load Force : 1.0 Kg 2. Holding Time : 10 ± 1sec
6-4	Bending Strength of Terminal	No wire breakage and No Damage of Capacitor	1. Load Force : 0.5 Kg 2. Bending Time : 4 x 90˚in 5sec
6-5	Solder-ability	1. Appearance : No Visible Damage 2. Covering an area of > solder 95% 3. Capacitance Change : ≤ ±5%	Soldering preheating 1.Preheating temperature of T < 120 ℃ 2.Preheating time capacitor t< 5 min Single wave soldering 1.Solder temperature: 235±5℃ 2.Solder time: 2±0.5sec
6-6	Heat Shock test	Appearance : No Visible Damage Withstand Voltage : Normal Capacitance Change : ≤ ±5% of the initial value	The terminal of capacitor shall be immersed in the melting solder. a. Solder temperature: 270±5℃ b. Solder time: 3±0.5sec c. Test Voltage: 100% of The Rate Voltage For 1min.
6-7	Cold Resistance	Appearance : No Visible Damage Capacitance Change : ≤±5%%of the initial value	a. Test Temperature: -40℃ b. Test Times: 2Hrs
6-8	Dry Heat Resistance	Appearance : No Visible Damage Withstand Voltage : Normal Capacitance Change : ≤±5%of the initial value	a. Test Temperature:85℃ ± 2℃ b. Test Times: 2Hrs

No	Test items	Performance	Test Method
6-9	Humidity Resistance	Appearance : No Visible Damage Withstand Voltage : Normal Capacitance Change : ≤ ±10% of the initial value Insulation Resistance: ≥50%of the rated value DF (tanδ) ≤ 1%	a. Test Temperature: 40℃ ± 2℃ b. Relative Humidity: 90 ~ 95% c. Test Times:500 HRS
6-10	Charge & Discharge	Appearance : No Visible Damage Capacitance Change : ±10% of the initial value Insulation Resistance: ≥50%of the rated value DF (tanδ) ≤ 1%	a. Test Voltage : Rated Voltage Charge for 2sec. Discharge for 2 sec. Repeated for 1000±100 cycles b. Test Temperature: 85℃±2℃
6-11	Load Life Test	Appearance : No Visible Damage Capacitance Change : ±10% of the initial value Insulation Resistance: ≥50%of the rated value DF (tanδ) ≤ 1%	a. Test Temperature: 85℃±2℃ b. Test Times: 1000±24Hrs c.Test Voltage: 125% of The Rated Voltage
6-12	Temperature Cycle Test	Appearance : No Visible Damage Capacitance Change : ±5% of the initial value Insulation Resistance: ≥50%of the rated value DF (tanδ) ≤ 1%	-40±3℃ for 30 minutes to 85±2℃ for 30 minutes, cycled five times in sequence

7. Marking



ALN	Aillen
104	CAPACITANCE
K	CAPACITANCE TOLERANCE
400	RATED VOLTAGE
ME	METALLIZED POLYESTER FILM

8. 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 ℃, humidity less than 50% of the state of storage for one year.

9. Packing for tinned-wire capacitors

9-1 Outline Drawing

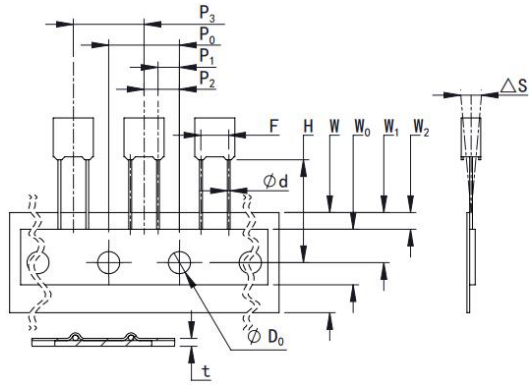


Fig.1

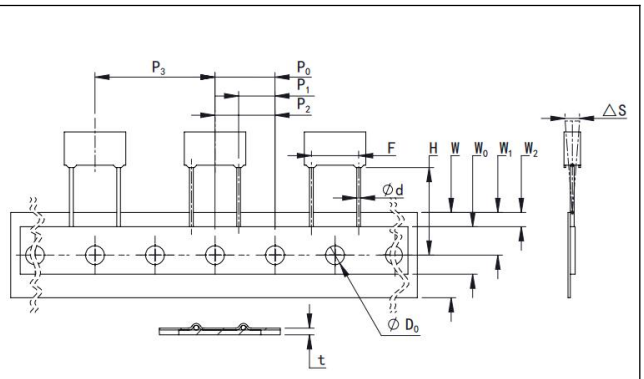
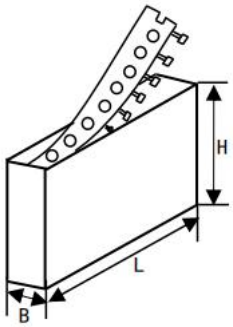


Fig.2

9-2 Taping & Box Dimensions(mm)

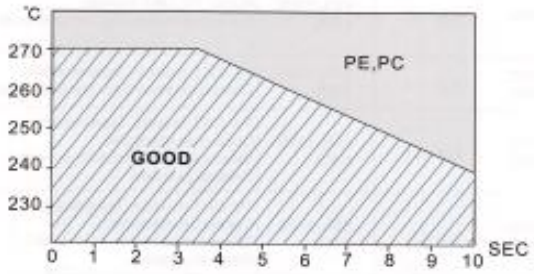
Mark	Taping Dimensions(mm)				
	P=5.0	P=7.5	P=10.0	P=15.0	Tolerate
Type	Fig.1	Fig.1	Fig. 2	Fig. 2	/
P3	12.7	12.7	25.4	25.4	±1.0
P0	12.7	12.7	12.7	12.7	±0.3
P1	3.85	2.6	7.7	5.2	±0.7
P2	6.35	6.35	12.7	12.7	±1.3
F	5	7.5	10	15	+0.6/-0.1
ΔS	0	0	0	0	±2.0
H	18.5	18.5	18.5	18.5	±0.5
H0	16	16	16	16	±0.5
W	18	18	18	18	+1/-0.5
W0	8min	10min	10min	10min	/
W1	9	9	9	9	±0.5
W2	3max	3max	3max	3max	/
D0	4	4	4	4	±0.2
t	0.7	0.7	0.7	0.7	±0.2
Note: If you need other taping,please contact us.					

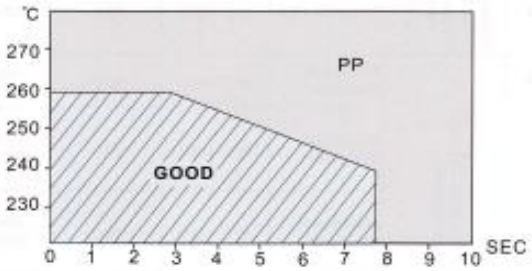


L=335±3mm
B=55/50±3mm
H=265/350±3mm

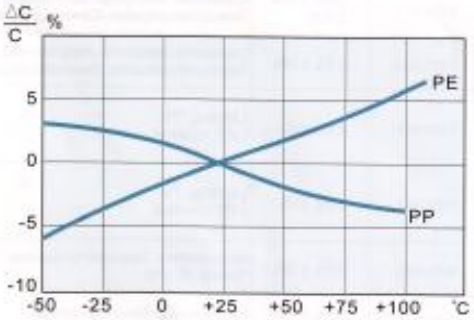
10. Typical graphs

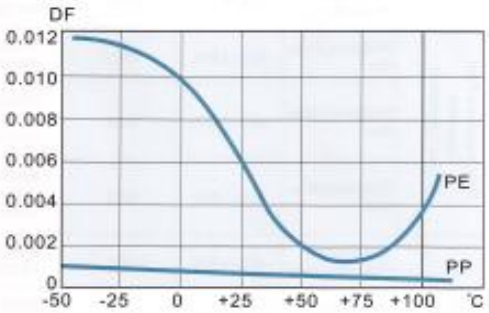
Soldering Temperature VS Time

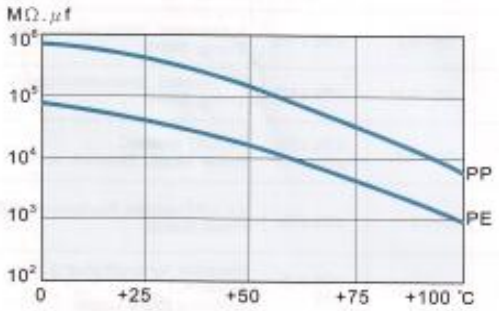




Temperature Characteristics







PP：聚丙烯薄膜（Polypropylene Film）

PE：聚酯薄膜 (Polyester Film)

Freqency Characteristics