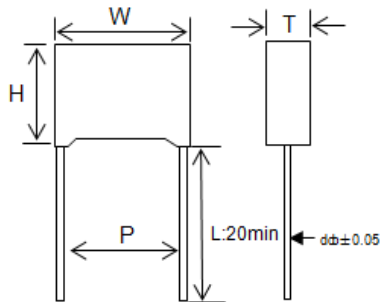


## 金属化聚丙烯膜电容器 Metallized polypropylene film capacitor(Box-type)

### ■ 外形图 Outline Drawing



### ■ 特点

- 金属化聚丙烯结构
- 良好的电性能
- 塑料外壳(UL94/V-0), 阻然环氧填充

### ■ 主要用途

- 用于开关电源、电子镇流器和变频器等中间电路隔直流滤波 (如: DC-Link/PFC)

### ■ Features

- Metallized polypropylene structure
- excellent electric property
- Plastic case (UL94 V-0), Epoxy resin sealing.

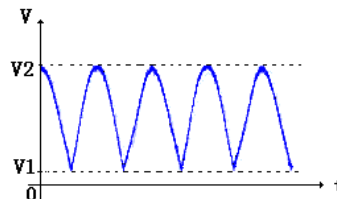
### ■ Typical application

- As intermediate circuit capacitors for SMPS、Electronic Ballast、inverter(I.e DC-Link and P.F.C).

The series product is only recommended to use in DC-filter or DC-blocking circuits. It means the voltage applied to the capacitors must be unidirectional ripple voltage. The typical voltage curve is as follows reference. If you have any questions for this note, please feel free to contact with our technical engineer.

$$\text{Here: } V_1 \geq 0, V_2 \leq U_R, I_{rms} = 2 \pi f \times C \times (V_2 - V_1) \div \sqrt{2}$$

$U_R$  is the rated voltage of the capacitor



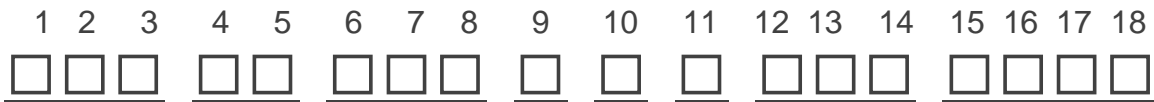
### ■ 技术要求 Specifications

引用标准 Reference Standard	GB/T 10190 (IEC 60384-16)				
气候类别 Climatic Category	40/105/56				
额定温度 Rated temperature	85°C				
工作温度范围 Operating temperature	-40°C~105°C (+85°C to +105°C: decreasing factor 1.25% per °C for VR(dc))				
额定电压 Rated Voltage	450V, 520V, 630V				
电容量范围 Capacitance Range	0.022 ~22μF				
电容量偏差 Capacitance Tolerance	±5%(J), ±10% (K), ±20% (M)				
耐电压 Voltage Proof	1.6UR (5s)				
损耗角正切 Dissipation Factor	≤15×10 <sup>-4</sup> (20°C, 1kHz)				
绝缘电阻 Insulation Resistance	≥100 000MΩ, CR≤0.33μF ≥30 000s, CR>0.33μF (20°C, 100V, 1min)				
最大脉冲爬升速率 Maximum Pulse Rise Time (dv/dt) 若实际工作电压 U 比额定电压 UR 低, 电容器可工作在更高的 dv/dt 场合。这样 dv/dt 允许值为右表值乘 UR/U。	UR(V)	dv/dt (V/μs)			
		P=10.0	P=15.0	P=22.0	P=27.0
	450	300	200	100	80
	520	350	220	150	100
630	400	300	180	120	

## 产品代码说明 Part number system

### ■ 18 位产品代码说明如下:

The 18 digits part number is formed as follow:



### W 3 8

第 1~3 位: 型号代码

W38=MKP25

第 4~5 位: 直流额定电压

2S=450V 3T=520V 2J=630V

第 6~8 位: 标称容量

举例 : 104 =  $10 \times 10^4$  PF = 0.1 $\mu$ f

第 9 位: 容量偏差

J=±5%, K=±10%, M=±20%

第 10 位: 引线脚距

K=10mm M=15mm P=22mm

S=27mm

第 11 位: 引线线径

5= CP 0.5mm 6= CP 0.6mm

7= CP 0.7mm 8= CP 0.8mm

1= CU 1.0mm 9= CU 0.8mm

2= CU 0.5mm 3= CU 0.6mm

4= CU 0.7mm

第 12 位: 引线加工和包装代码

L= 直脚 K= 引线成型

T= 弹带包装

第 13~18 位: 内部特征码

Digit 1 to 3: Series code

W38=MKP25

Digit 4 to 5: DC rated voltage

2S=450V 3T=520V 2J=630V

Digit 6 to 8: Rated capacitance

For example: 104 =  $10 \times 10^4$  PF = 0.1 $\mu$ f

Digit 9: Capacitance tolerance

J=±5%, K=±10%, M=±20%

Digit 10: Pitch

K=10mm M=15mm P=22mm

S=27mm

Digit 11: Lead Wire diameter

5= CP 0.5mm 6= CP 0.6mm

7= CP 0.7mm 8= CP 0.8mm

1= CU 1.0mm 9= CU 0.8mm

2= CU 0.5mm 3= CU 0.6mm

4= CU 0.7mm

Digit 12: Lead form and packaging code

L= straight lead K= Lead kinked

T= ammo-pack

Digit 13 to 18: Internal use

## ■ 外形尺寸 Dimensions (mm)

450Vdc						
Cn (μF)	W max	H max	T max	P	d	Part number
0.068	13.0	9.0	4.0	10.0	0.6	W382S683-K6*****
0.082	13.0	9.0	4.0	10.0	0.6	W382S823-K6*****
0.10	13.0	11.0	5.0	10.0	0.6	W382S104-K6*****
0.12	13.0	11.0	5.0	10.0	0.6	W382S124-K6*****
0.15	13.0	12.0	6.0	10.0	0.6	W382S154-K6*****
0.18	13.0	12.0	6.0	10.0	0.6	W382S184-K6*****
0.22	13.0	13.0	7.0	10.0	0.6	W382S224-K6*****
0.27	13.0	13.0	7.0	10.0	0.6	W382S274-K6*****
0.33	13.0	14.0	8.0	10.0	0.6	W382S334-K6*****
0.10	18.0	9.5	5.0	15.0	0.6	W382S104-M6*****
0.12	18.0	11.0	5.0	15.0	0.6	W382S124-M6*****
0.15	18.0	11.0	5.0	15.0	0.6	W382S154-M6*****
0.18	18.0	11.0	5.0	15.0	0.6	W382S184-M6*****
0.22	18.0	11.0	5.0	15.0	0.6	W382S224-M6*****
0.27	18.0	12.0	6.0	15.0	0.6	W382S274-M6*****
0.33	18.0	12.0	6.0	15.0	0.6	W382S334-M6*****
0.39	18.0	13.5	7.5	15.0	0.6	W382S394-M6*****
0.47	18.0	13.5	7.5	15.0	0.6	W382S474-M6*****
0.56	18.0	13.5	7.5	15.0	0.6	W382S564-M6*****
0.68	18.0	16.0	10.0	15.0	0.8	W382S684-M8*****
0.82	18.0	16.0	10.0	15.0	0.8	W382S824-M8*****
1.0	18.0	19.0	11.0	15.0	0.8	W382S105-M8*****
0.27	26.5	15.0	6.0	22.0	0.6	W382S274-P6*****
0.33	26.5	15.0	6.0	22.0	0.6	W382S334-P6*****
0.39	26.5	15.0	6.0	22.0	0.6	W382S394-P6*****
0.47	26.5	15.0	6.0	22.0	0.6	W382S474-P6*****
0.56	26.5	16.0	7.0	22.0	0.6	W382S564-P6*****
0.68	26.5	16.0	7.0	22.0	0.6	W382S684-P6*****
0.82	26.5	16.0	7.0	22.0	0.6	W382S824-P6*****
1.0	26.5	17.0	8.5	22.0	0.8	W382S105-P8*****
1.2	26.5	18.5	10.0	22.0	0.8	W382S125-P8*****
1.5	26.5	18.5	10.0	22.0	0.8	W382S155-P8*****
1.8	26.5	22.0	12.0	22.0	0.8	W382S185-P8*****
0.68	32.0	18.0	9.0	27.0	0.8	W382S684-S8*****
0.82	32.0	18.0	9.0	27.0	0.8	W382S824-S8*****
1.0	32.0	18.0	9.0	27.0	0.8	W382S105-S8*****
1.2	32.0	18.0	9.0	27.0	0.8	W382S125-S8*****
1.5	32.0	18.0	9.0	27.0	0.8	W382S155-S8*****
1.8	32.0	20.0	11.0	27.0	0.8	W382S185-S8*****
2.2	32.0	20.0	11.0	27.0	0.8	W382S225-S8*****
2.7	32.0	22.0	13.0	27.0	0.8	W382S275-S8*****
3.3	32.0	22.0	13.0	27.0	0.8	W382S335-S8*****
3.9	32.0	24.5	15.0	27.0	0.8	W382S395-S8*****
4.7	32.0	33.0	18.0	27.0	0.8	W382S475-S8*****
5.6	32.0	33.0	18.0	27.0	0.8	W382S565-S8*****
6.8	32.0	33.0	18.0	27.0	0.8	W382S685-S8*****
8.2	32.0	33.0	18.0	27.0	0.8	W382S825-S8*****

520Vdc						
Cn (μF)	W max	H max	T max	P	d	Part number
0.047	13.0	9.0	4.0	10.0	0.6	W383T473-K6*****
0.056	13.0	9.0	4.0	10.0	0.6	W383T563-K6*****
0.068	13.0	9.0	4.0	10.0	0.6	W383T683-K6*****
0.082	13.0	11.0	5.0	10.0	0.6	W383T823-K6*****
0.1	13.0	11.0	5.0	10.0	0.6	W383T104-K6*****
0.12	13.0	12.0	6.0	10.0	0.6	W383T124-K6*****
0.15	13.0	12.0	6.0	10.0	0.6	W383T154-K6*****
0.18	13.0	13.0	7.0	10.0	0.6	W383T184-K6*****
0.22	13.0	13.0	7.0	10.0	0.6	W383T224-K6*****
0.27	13.0	14.0	8.0	10.0	0.6	W383T274-K6*****
0.033	18.0	11.0	5.0	15.0	0.6	W383T333-M6*****
0.039	18.0	11.0	5.0	15.0	0.6	W383T393-M6*****
0.047	18.0	11.0	5.0	15.0	0.6	W383T473-M6*****
0.056	18.0	11.0	5.0	15.0	0.6	W383T563-M6*****
0.068	18.0	11.0	5.0	15.0	0.6	W383T683-M6*****
0.082	18.0	11.0	5.0	15.0	0.6	W383T823-M6*****
0.1	18.0	11.0	5.0	15.0	0.6	W383T104-M6*****
0.12	18.0	11.0	5.0	15.0	0.6	W383T124-M6*****
0.15	18.0	11.0	5.0	15.0	0.6	W383T154-M6*****
0.18	18.0	11.0	5.0	15.0	0.6	W383T184-M6*****
0.22	18.0	12.0	6.0	15.0	0.6	W383T224-M6*****
0.27	18.0	12.0	6.0	15.0	0.6	W383T274-M6*****
0.33	18.0	13.5	7.5	15.0	0.6	W383T334-M6*****
0.39	18.0	13.5	7.5	15.0	0.6	W383T394-M6*****
0.47	18.0	14.5	8.5	15.0	0.8	W383T474-M8*****
0.56	18.0	16.0	10.0	15.0	0.8	W383T564-M8*****
0.68	18.0	16.0	10.0	15.0	0.8	W383T684-M8*****
0.82	18.0	19.0	11.0	15.0	0.8	W383T824-M8*****
1.0	18.0	19.0	11.0	15.0	0.8	W383T105-M8*****
0.18	26.5	15.0	6.0	22.0	0.6	W383T184-P6*****
0.22	26.5	15.0	6.0	22.0	0.6	W383T224-P6*****
0.27	26.5	15.0	6.0	22.0	0.6	W383T274-P6*****
0.33	26.5	15.0	6.0	22.0	0.6	W383T334-P6*****
0.39	26.5	15.0	6.0	22.0	0.6	W383T394-P6*****
0.47	26.5	15.0	6.0	22.0	0.6	W383T474-P6*****
0.56	26.5	16.0	7.0	22.0	0.6	W383T564-P6*****
0.68	26.5	16.0	7.0	22.0	0.6	W383T684-P6*****
0.82	26.5	17.0	8.5	22.0	0.8	W383T824-P8*****
1.0	26.5	18.5	10.0	22.0	0.8	W383T105-P8*****
1.2	26.5	18.5	10.0	22.0	0.8	W383T125-P8*****
1.5	26.5	22.0	12.0	22.0	0.8	W383T155-P8*****
1.8	26.5	22.0	12.0	22.0	0.8	W383T185-P8*****
0.27	32.0	18.0	9.0	27.0	0.8	W383T274-S8*****
0.33	32.0	18.0	9.0	27.0	0.8	W383T334-S8*****
0.39	32.0	18.0	9.0	27.0	0.8	W383T394-S8*****
0.47	32.0	18.0	9.0	27.0	0.8	W383T474-S8*****
0.56	32.0	18.0	9.0	27.0	0.8	W383T564-S8*****
0.68	32.0	18.0	9.0	27.0	0.8	W383T684-S8*****
0.82	32.0	18.0	9.0	27.0	0.8	W383T824-S8*****
1.0	32.0	18.0	9.0	27.0	0.8	W383T105-S8*****
1.2	32.0	18.0	9.0	27.0	0.8	W383T125-S8*****
1.5	32.0	20.0	11.0	27.0	0.8	W383T155-S8*****
1.8	32.0	20.0	11.0	27.0	0.8	W383T185-S8*****
2.2	32.0	22.0	13.0	27.0	0.8	W383T225-S8*****
2.7	32.0	24.5	15.0	27.0	0.8	W383T275-S8*****
3.3	32.0	28.0	14.0	27.0	0.8	W383T335-S8*****
3.9	32.0	28.0	14.0	27.0	0.8	W383T395-S8*****
4.7	32.0	33.0	18.0	27.0	0.8	W383T475-S8*****
5.6	32.0	33.0	18.0	27.0	0.8	W383T565-S8*****
6.8	32.0	33.0	18.0	27.0	0.8	W383T685-S8*****

备注: 1. "-" 表示容量偏差。"- " =capacitance tolerance code, M=±20%,K=±10%,J=±5%

2. 第 12 位表示引线加工和包装代码, L= 直脚 straight lead K= 引线成型 Lead kinked T= 弹带包装 ammo-pack

## ■ 外形尺寸 Dimensions (mm)

630Vdc						
Cn ( $\mu$ F)	W max	H max	T max	P	d	Part number
0.027	13.0	9.0	4.0	10.0	0.6	W382J273-K6*****
0.033	13.0	9.0	4.0	10.0	0.6	W382J333-K6*****
0.039	13.0	9.0	4.0	10.0	0.6	W382J393-K6*****
0.047	13.0	11.0	5.0	10.0	0.6	W382J473-K6*****
0.056	13.0	11.0	5.0	10.0	0.6	W382J563-K6*****
0.068	13.0	11.0	5.0	10.0	0.6	W382J683-K6*****
0.082	13.0	12.0	6.0	10.0	0.6	W382J823-K6*****
0.10	13.0	12.0	6.0	10.0	0.6	W382J104-K6*****
0.12	13.0	13.0	7.0	10.0	0.6	W382J124-K6*****
0.15	13.0	13.0	7.0	10.0	0.6	W382J154-K6*****
0.18	13.0	14.0	8.0	10.0	0.6	W382J184-K6*****
0.068	18.0	11.0	5.0	15.0	0.6	W382J683-M6*****
0.082	18.0	11.0	5.0	15.0	0.6	W382J823-M6*****
0.10	18.0	11.0	5.0	15.0	0.6	W382J104-M6*****
0.12	18.0	11.0	5.0	15.0	0.6	W382J124-M6*****
0.15	18.0	12.0	6.0	15.0	0.6	W382J154-M6*****
0.18	18.0	12.0	6.0	15.0	0.6	W382J184-M6*****
0.22	18.0	13.5	7.5	15.0	0.6	W382J224-M6*****
0.27	18.0	13.5	7.5	15.0	0.6	W382J274-M6*****
0.33	18.0	14.5	8.5	15.0	0.8	W382J334-M8*****
0.39	18.0	16.0	10.0	15.0	0.8	W382J394-M8*****
0.47	18.0	16.0	10.0	15.0	0.8	W382J474-M8*****
0.56	18.0	19.0	11.0	15.0	0.8	W382J564-M8*****
0.68	18.0	19.0	11.0	15.0	0.8	W382J684-M8*****
0.15	26.5	15.0	6.0	22.0	0.6	W382J154-P6*****
0.18	26.5	15.0	6.0	22.0	0.6	W382J184-P6*****

630Vdc						
Cn ( $\mu$ F)	W max	H max	T max	P	d	Part number
0.22	26.5	15.0	6.0	22.0	0.6	W382J224-P6*****
0.27	26.5	15.0	6.0	22.0	0.6	W382J274-P6*****
0.33	26.5	15.0	6.0	22.0	0.6	W382J334-P6*****
0.39	26.5	16.0	7.0	22.0	0.6	W382J394-P6*****
0.47	26.5	16.0	7.0	22.0	0.6	W382J474-P6*****
0.56	26.5	17.0	8.5	22.0	0.8	W382J564-P8*****
0.68	26.5	17.0	8.5	22.0	0.8	W382J684-P8*****
0.82	26.5	18.5	10.0	22.0	0.8	W382J824-P8*****
1.0	26.5	18.5	10.0	22.0	0.8	W382J105-P8*****
1.2	26.5	22.0	12.0	22.0	0.8	W382J125-P8*****
0.27	32.0	18.0	9.0	27.0	0.8	W382J274-S8*****
0.33	32.0	18.0	9.0	27.0	0.8	W382J334-S8*****
0.39	32.0	18.0	9.0	27.0	0.8	W382J394-S8*****
0.47	32.0	18.0	9.0	27.0	0.8	W382J474-S8*****
0.56	32.0	18.0	9.0	27.0	0.8	W382J564-S8*****
0.68	32.0	18.0	9.0	27.0	0.8	W382J684-S8*****
0.82	32.0	18.0	9.0	27.0	0.8	W382J824-S8*****
1.0	32.0	20.0	11.0	27.0	0.8	W382J105-S8*****
1.2	32.0	20.0	11.0	27.0	0.8	W382J125-S8*****
1.5	32.0	22.0	13.0	27.0	0.8	W382J155-S8*****
1.8	32.0	22.0	13.0	27.0	0.8	W382J185-S8*****
2.2	32.0	24.5	15.0	27.0	0.8	W382J225-S8*****
2.7	32.0	28.0	14.0	27.0	0.8	W382J275-S8*****
3.3	32.0	33.0	18.0	27.0	0.8	W382J335-S8*****
3.9	32.0	33.0	18.0	27.0	0.8	W382J395-S8*****

备注: 1. “-”表示容量偏差。“-”=capacitance tolerance code, M=±20%,K=±10%,J=±5%

2. 第12位表示引线加工和包装代码, L=直脚 straight lead K=引线成型 Lead kinked T=弹带包装 ammo-pack