

Metallized Polypropylene Film Capacitor

FMPP

Non-inductive construction using metallized Polypropylene film with flame retardant epoxy resin coating

■ Features

- Self-healing property.
- Safe-film construction.
- miniature size of MPP.
- Coated with flame-retardant(UL94 V-0) epoxy resin.
- RoHS directive compliant

■ Applications

- DC Multipurpose.
- Widely used in SMPS.
- Used in DC-filter.

■ Specifications

Reference Standard		IEC 60384-16	
Climatic Category		40 / 105 / 21	
Rated Temperature		105℃ +85℃~+105℃ decreasing factor 1.0% / °C for V_R (dc)	
Operation Temperature Range		-40℃~105℃	
Rated Voltage		450V, 500V	
Capacitance Range		0.01μF~4.7μF	
Capacitance Tolerance		J : ±5% K : ±10% M : ±20% ※Standard : J : ±5%, Other Tolerance Grade : available on request.	
Voltage Proof		1.75 U_R (dc) / 3sec	
Dissipation Factor		≤0.1%(at 1kHz 20℃)	
Rated Voltage	DC-Type	U_R (dc)<500V	≥30,000MΩ C_R ≤0.33μF 100Vdc 60sec 20℃
			≥10,000Ω·F C_R >0.33μF 100Vdc 60sec 20℃
		U_R (dc)≥500V	≥30,000MΩ C_R ≤0.33μF 500Vdc 60sec 20℃
			≥10,000Ω·F C_R >0.33μF 500Vdc 60sec 20℃

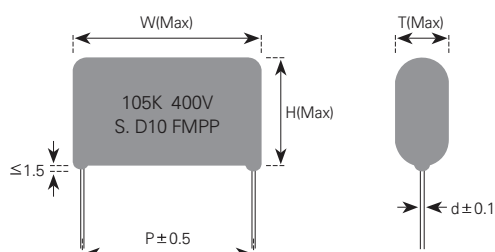
■ Part Number System

FMPP	450V	334	J	10	S	5	
Part-1	Part-2	Part-3	Part-4	Part-5	Part-6	Part-7	Part-8

Part-1 : Series Code(Series Name) - FMPP
 Part-2 : Rated Voltage(DC : 400V~630V)
 Part-3 : Rated Capacitance Value(0.01μF~4.7μF / 103~475)
 Part-4 : Capacitance Tolerance(J : ±5% K : ±10% M : ±20%)
 Part-5 : Lead Spacing(10mm / 15mm / 22.5mm / 27.5mm)
 Part-6 : Forming-Type and Packing Code
 Part-7 : Size Number(1~4 : Min-Type / 5 : Standard-Type / 6~9 : Large-Type)
 Part-8 : Internal Use

CODE	STYLE
B	Bending Forming
C	Straight Cutting
D	D-Type Forming
L	B-Type long Forming
M	C-Type long Forming
S	Straight
X	B-Type Forming
Y	C-Type Forming
Z	Z-Type Forming
T	A-Type Tapping
U	B-Type Tapping
V	C-Type Tapping

■ Dimensions



450Vdc					
Cap. (μF)	Dimensions(mm)			Pitch - d	PART NUMBER
	W (max.)	H (max.)	T (max.)		
0.33	13.0	15.0	7.5	10-0.6	FMPP 450V 334J 10 S 5 ____
0.47	13.0	16.0	7.5	10-0.6	FMPP 450V 474J 10 S 5 ____
0.68	13.0	16.0	7.5	10-0.6	FMPP 450V 684J 10 S 5 ____
1.0	13.0	18.0	9.0	10-0.6	FMPP 450V 105J 10 S 5 ____
0.47	18.0	10.5	6.0	15-0.6	FMPP 450V 474J 15 S 5 ____
0.68	18.0	11.0	6.5	15-0.8	FMPP 450V 684J 15 S 5 ____
0.82	18.0	14.0	7.0	15-0.8	FMPP 450V 824J 15 S 5 ____
1.0	18.0	12.0	7.5	15-0.8	FMPP 450V 105J 15 S 5 ____
1.3	18.0	13.5	10.0	15-0.8	FMPP 450V 135J 15 S 5 ____
1.5	18.0	14.5	10.5	15-0.8	FMPP 450V 155J 15 S 5 ____
2.2	18.0	16.0	11.0	15-0.8	FMPP 450V 225J 15 S 5 ____
4.7	26.0	20.5	12.5	22.5-0.8	FMPP 450V 475J 22.5 S 5 ____

500Vdc					
Cap. (μF)	Dimensions(mm)			Pitch - d	PART NUMBER
	W (max.)	H (max.)	T (max.)		
0.01	13.0	10.0	6.5	10-0.6	FMPP 500V 103J 10 S 5 ____
0.022	13.0	10.0	6.5	10-0.6	FMPP 500V 223J 10 S 5 ____
0.033	13.0	10.0	6.5	10-0.6	FMPP 500V 333J 10 S 5 ____
0.047	13.0	10.0	6.5	10-0.6	FMPP 500V 473J 10 S 5 ____
0.068	13.0	10.0	6.5	10-0.6	FMPP 500V 683J 10 S 5 ____
0.1	13.0	9.0	6.0	10-0.6	FMPP 500V 104J 10 S 5 ____
0.15	13.0	11.0	6.7	10-0.6	FMPP 500V 154J 10 S 5 ____
0.22	13.0	12.0	7.5	10-0.6	FMPP 500V 224J 10 S 5 ____

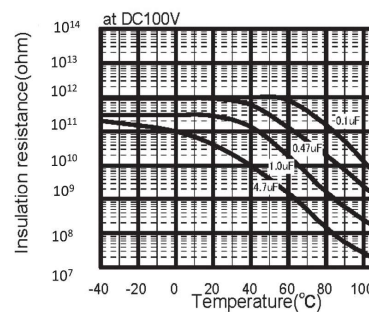
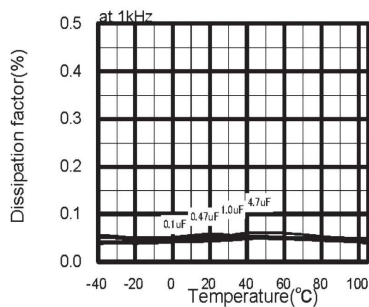
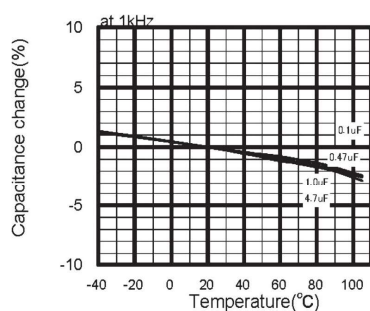
0.33	13.0	13.5	9.0	10-0.6	FMPP 500V 334J 10 S 5 ____
0.47	13.5	17.3	8.4	10-0.6	FMPP 500V 474J 10 S 5 ____
0.56	13.0	18.0	9.5	10-0.6	FMPP 500V 564J 10 S 5 ____
0.68	13.0	20.0	11.0	10-0.6	FMPP 500V 684J 10 S 5 ____
0.22	18.0	12.0	7.0	15-0.8	FMPP 500V 224J 15 S 5 ____
0.33	18.5	13.5	7.0	15-0.8	FMPP 500V 334J 15 S 5 ____
0.47	18.5	15.0	6.5	15-0.8	FMPP 500V 474J 15 S 5 ____
0.56	18.0	16.0	7.0	15-0.8	FMPP 500V 564J 15 S 5 ____
0.68	18.0	16.8	8.0	15-0.8	FMPP 500V 684J 15 S 5 ____
0.82	18.0	17.5	8.5	15-0.8	FMPP 500V 824J 15 S 5 ____
1.0	18.0	19.6	9.2	15-0.8	FMPP 500V 105J 15 S 5 ____
1.5	18.5	22.0	10.0	15-0.8	FMPP 500V 155J 15 S 5 ____
1.5	26.0	19.5	9.0	22.5-0.8	FMPP 500V 155J 22.5 S 5 ____
2.2	26.0	21.5	11.0	22.5-0.8	FMPP 500V 225J 22.5 S 5 ____
3.3	26.0	22.0	14.0	22.5-0.8	FMPP 500V 335J 22.5 S 5 ____
4.7	26.0	25.5	17.0	22.5-0.8	FMPP 500V 475J 22.5 S 5 ____

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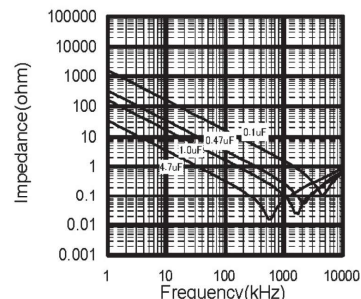
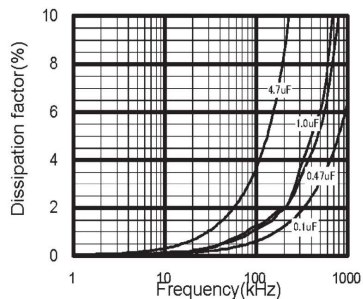
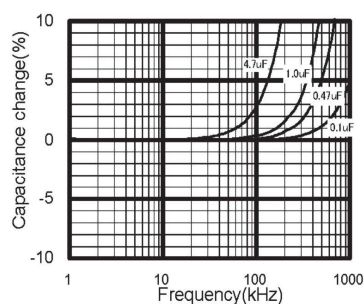
Electrical Characteristics (Typical Data)

450/500Vdc Series

Temperature Characteristics

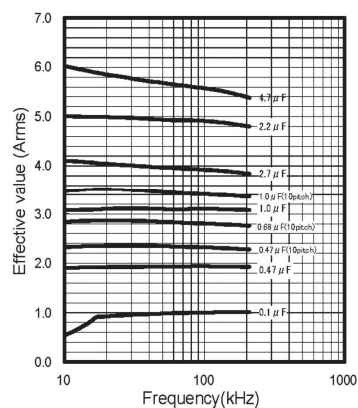


Frequency Characteristics



Applicable Specifications

Permissible Current



Pulse Handling Capability(dv/dt)
(Max 1000cycles)

Rated Voltage	Pitch (mm)	Capacitance (μF)	Code	dv/dt (V/μs)	Current (A0-p)
DC 450V/500V	10.0	0.10	104	41.6	4.2
		0.15	154		6.2
		0.22	224		9.2
		0.47	474		19.6
		0.68	684		28.3
		1.00	105		41.6
	15.0	0.47	474	24.3	11.4
		1.0	105		24.3
		1.5	155		36.4
		2.2	225		53.4
	22.5	2.7	275	14.3	38.7
		4.7	475		67.3