Metallized Polypropylene Film Capacitor

MPPS

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

■ Features

- Metallized Polypropylene(Series Type).
- Non-inductive wound construction.
- Low dissipation factor.
- Small inherent temperature rise.
- Coated with flame-retardant(UL94 V-0) epoxy resin.
- RoHS directive compliant

■ Applications

- Typical applications include pulse operation in switched mode
- power supply(SMPS), televisions, computers, monitors, electrical ballasts and other high frequency applications demanding stable operation.

■ Specifications

Reference Standard	IEC 60384-16
Climatic Category	40 / 105 / 21
Rated Temperature	105℃ +85℃~+105℃ decreasing factor 1.0% / ℃ for V_R(dc)
Operation Temperature Range	-40℃~105℃
Rated Voltage	1000Vdc, 1250Vdc, 1600Vdc, 2000Vdc
Capacitance Range	0.0027μF~0.68μF
Capacitance Tolerance	G : ±2% H : ±3% J : ±5% K : ±10% M : ±20% ※Standard : J : ±5%, Other Tolerance Grade : available on request.
Voltage Proof	1.75U_R(dc) / 3sec
Dissipation Factor	≤0.1%(at 1kHz 20℃)
Rated Voltage	≥30,000MΩ C_R≤0.33μF 100Vdc 60sec 20℃
	≥10,000Ω·F C_R〉0.33μF 100Vdc 60sec 20℃

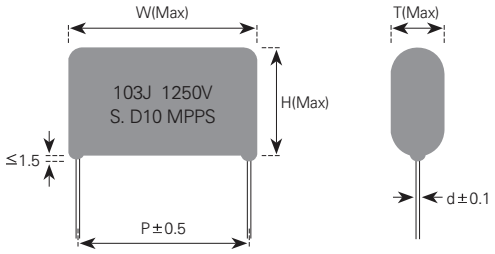
■ Part Number System

MPPS	1000V	103	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) - MPPS
Part-2 : Rated Voltage(DC : 1000V~2000V)
Part-3 : Rated Capacitance Value(0.0027μF~0.68μF / 272~684)
Part-4 : Capacitance Tolerance(G : ±2% H : ±3% 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



1000Vdc(400Vac)

Cap. (μF)	Dimensions(mm) W (max.)	H (max.)	T (max.)	Pitch - d	PART NUMBER
0.01	13.0	14.0	8.5	10.0-0.6	MPPS 1000V 103J 10S 5 ____
0.012	13.0	14.5	9.5	10.0-0.6	MPPS 1000V 123J 10S 5 ____
0.015	13.0	15.5	10.5	10.0-0.6	MPPS 1000V 153J 10S 5 ____
0.018	13.0	16.5	11.5	10.0-0.6	MPPS 1000V 183J 10S 5 ____
0.022	13.0	17.5	12.5	10.0-0.6	MPPS 1000V 223J 10S 5 ____
0.018	18.0	11.5	7.0	15.0-0.8	MPPS 1000V 183J 15S 5 ____
0.022	18.0	12.5	7.0	15.0-0.8	MPPS 1000V 223J 15S 5 ____
0.027	18.0	13.0	8.0	15.0-0.8	MPPS 1000V 273J 15S 5 ____
0.033	18.0	13.5	8.5	15.0-0.8	MPPS 1000V 333J 15S 5 ____
0.039	18.0	14.5	9.0	15.0-0.8	MPPS 1000V 393J 15S 5 ____
0.047	18.0	15.0	10.0	15.0-0.8	MPPS 1000V 473J 15S 5 ____
0.056	18.0	17.0	10.0	15.0-0.8	MPPS 1000V 563J 15S 5 ____
0.068	18.0	17.5	11.0	15.0-0.8	MPPS 1000V 683J 15S 5 ____
0.082	18.0	19.0	12.0	15.0-0.8	MPPS 1000V 823J 15S 5 ____
0.1	18.0	21.0	12.5	15.0-0.8	MPPS 1000V 104J 15S 5 ____
0.12	18.0	22.0	14.0	15.0-0.8	MPPS 1000V 124J 15S 5 ____
0.15	18.0	24.5	15.0	15.0-0.8	MPPS 1000V 154J 15S 5 ____
0.047	26.0	13.0	8.0	22.5-0.8	MPPS 1000V 473J 22.5S 5 ____
0.056	26.0	13.5	8.5	22.5-0.8	MPPS 1000V 563J 22.5S 5 ____
0.068	26.0	14.0	9.0	22.5-0.8	MPPS 1000V 683J 22.5S 5 ____
0.082	26.0	15.0	10.0	22.5-0.8	MPPS 1000V 823J 22.5S 5 ____
0.1	26.0	16.0	10.5	22.5-0.8	MPPS 1000V 104J 22.5S 5 ____
0.12	26.0	17.5	11.0	22.5-0.8	MPPS 1000V 124J 22.5S 5 ____
0.15	26.0	19.0	12.0	22.5-0.8	MPPS 1000V 154J 22.5S 5 ____
0.18	26.0	20.5	12.5	22.5-0.8	MPPS 1000V 184J 22.5S 5 ____
0.22	26.0	22.0	13.5	22.5-0.8	MPPS 1000V 224J 22.5S 5 ____
0.27	26.0	24.5	14.5	22.5-0.8	MPPS 1000V 274J 22.5S 5 ____
0.33	26.0	26.0	16.0	22.5-0.8	MPPS 1000V 334J 22.5S 5 ____
0.39	26.0	27.5	17.5	22.5-0.8	MPPS 1000V 394J 22.5S 5 ____
0.47	26.0	29.0	19.5	22.5-0.8	MPPS 1000V 474J 22.5S 5 ____
0.15	31.0	17.0	10.5	27.5-0.8	MPPS 1000V 154J 27.5S 5 ____
0.18	31.0	18.0	11.5	27.5-0.8	MPPS 1000V 184J 27.5S 5 ____
0.22	31.0	19.0	12.5	27.5-0.8	MPPS 1000V 224J 27.5S 5 ____
0.27	31.0	21.5	13.0	27.5-0.8	MPPS 1000V 274J 27.5S 5 ____
0.33	31.0	22.5	14.5	27.5-0.8	MPPS 1000V 334J 27.5S 5 ____
0.39	31.0	24.0	15.5	27.5-0.8	MPPS 1000V 394J 27.5S 5 ____
0.47	31.0	26.5	16.5	27.5-0.8	MPPS 1000V 474J 27.5S 5 ____
0.56	31.0	28.0	18.0	27.5-0.8	MPPS 1000V 564J 27.5S 5 ____
0.68	31.0	30.0	20.0	27.5-0.8	MPPS 1000V 684J 27.5S 5 ____

1250Vdc(450Vac)

Cap. (μF)	Dimensions(mm) W (max.)	H (max.)	T (max.)	Pitch - d	PART NUMBER
0.01	13.0	14.5	9.5	10.0-0.6	MPPS 1250V 103J 10S 5 ____
0.012	13.0	15.5	10.0	10.0-0.6	MPPS 1250V 123J 10S 5 ____
0.015	13.0	16.5	11.5	10.0-0.6	MPPS 1250V 153J 10S 5 ____
0.0082	18.0	11.0	6.5	15.0-0.8	MPPS 1250V 822J 15S 5 ____
0.01	18.0	10.5	6.0	15.0-0.8	MPPS 1250V 103J 15S 5 ____
0.012	18.0	11.0	6.5	15.0-0.8	MPPS 1250V 123J 15S 5 ____
0.015	18.0	11.5	7.0	15.0-0.8	MPPS 1250V 153J 15S 5 ____
0.018	18.0	12.5	7.0	15.0-0.8	MPPS 1250V 183J 15S 5 ____
0.022	18.0	13.0	7.5	15.0-0.8	MPPS 1250V 223J 15S 5 ____
0.027	18.0	13.5	8.5	15.0-0.8	MPPS 1250V 273J 15S 5 ____
0.033	18.0	14.5	9.0	15.0-0.8	MPPS 1250V 333J 15S 5 ____
0.039	18.0	15.0	10.0	15.0-0.8	MPPS 1250V 393J 15S 5 ____
0.047	18.0	17.0	10.0	15.0-0.8	MPPS 1250V 473J 15S 5 ____
0.056	18.0	17.5	11.0	15.0-0.8	MPPS 1250V 563J 15S 5 ____
0.068	18.0	19.0	12.0	15.0-0.8	MPPS 1250V 683J 15S 5 ____
0.022	26.0	12.5	7.5	22.5-0.8	MPPS 1250V 223J 22.5S 5 ____
0.027	26.0	12.0	7.0	22.5-0.8	MPPS 1250V 273J 22.5S 5 ____
0.033	26.0	12.5	7.5	22.5-0.8	MPPS 1250V 333J 22.5S 5 ____
0.039	26.0	13.0	8.0	22.5-0.8	MPPS 1250V 393J 22.5S 5 ____
0.047	26.0	13.5	8.5	22.5-0.8	MPPS 1250V 473J 22.5S 5 ____
0.056	26.0	14.0	9.0	22.5-0.8	MPPS 1250V 563J 22.5S 5 ____

0.068	26.0	15.0	10.0	22.5-0.8	MPPS 1250V 683J 22.5S 5 ____
0.082	26.0	16.0	10.5	22.5-0.8	MPPS 1250V 823J 22.5S 5 ____
0.1	26.0	17.5	11.0	22.5-0.8	MPPS 1250V 104J 22.5S 5 ____
0.12	26.0	18.5	12.0	22.5-0.8	MPPS 1250V 124J 22.5S 5 ____
0.15	26.0	21.0	12.5	22.5-0.8	MPPS 1250V 154J 22.5S 5 ____
0.18	26.0	22.0	13.5	22.5-0.8	MPPS 1250V 184J 22.5S 5 ____
0.22	26.0	24.5	14.5	22.5-0.8	MPPS 1250V 224J 22.5S 5 ____
0.27	26.0	26.0	16.0	22.5-0.8	MPPS 1250V 274J 22.5S 5 ____
0.068	31.0	14.0	8.5	27.5-0.8	MPPS 1250V 683J 27.5S 5 ____
0.082	31.0	14.5	9.5	27.5-0.8	MPPS 1250V 823J 27.5S 5 ____
0.1	31.0	15.5	10.0	27.5-0.8	MPPS 1250V 104J 27.5S 5 ____
0.12	31.0	16.0	11.0	27.5-0.8	MPPS 1250V 124J 27.5S 5 ____
0.15	31.0	18.0	11.5	27.5-0.8	MPPS 1250V 154J 27.5S 5 ____
0.18	31.0	19.0	12.5	27.5-0.8	MPPS 1250V 184J 27.5S 5 ____
0.22	31.0	21.5	13.0	27.5-0.8	MPPS 1250V 224J 27.5S 5 ____
0.27	31.0	22.5	14.5	27.5-0.8	MPPS 1250V 274J 27.5S 5 ____
0.33	31.0	25.0	15.0	27.5-0.8	MPPS 1250V 334J 27.5S 5 ____
0.39	31.0	25.5	17.0	27.5-0.8	MPPS 1250V 394J 27.5S 5 ____
0.47	31.0	28.0	18.0	27.5-0.8	MPPS 1250V 474J 27.5S 5 ____
0.56	31.0	29.0	20.5	27.5-0.8	MPPS 1250V 564J 27.5S 5 ____

1600Vdc(500Vac)

Cap. (μF)	Dimensions(mm) W (max.)	H (max.)	T (max.)	Pitch - d	PART NUMBER
0.0027	18.0	10.5	6.0	15.0-0.8	MPPS 1600V 272J 15S 5 ____
0.0033	18.0	11.0	6.5	15.0-0.8	MPPS 1600V 332J 15S 5 ____
0.0039	18.0	10.5	6.0	15.0-0.8	MPPS 1600V 392J 15S 5 ____
0.0047	18.0	11.0	6.5	15.0-0.8	MPPS 1600V 472J 15S 5 ____
0.0056	18.0	11.0	7.0	15.0-0.8	MPPS 1600V 562J 15S 5 ____
0.0068	18.0	12.0	7.0	15.0-0.8	MPPS 1600V 682J 15S 5 ____
0.0082	18.0	12.5	7.5	15.0-0.8	MPPS 1600V 822J 15S 5 ____
0.01	18.0	13.5	8.0	15.0-0.8	MPPS 1600V 103J 15S 5 ____
0.012	18.0	14.0	9.0	15.0-0.8	MPPS 1600V 123J 15S 5 ____
0.015	18.0	15.0	9.5	15.0-0.8	MPPS 1600V 153J 15S 5 ____
0.018	18.0	15.5	10.5	15.0-0.8	MPPS 1600V 183J 15S 5 ____
0.022	18.0	17.5	10.5	15.0-0.8	MPPS 1600V 223J 15S 5 ____
0.027	18.0	18.5	12.0	15.0-0.8	MPPS 1600V 273J 15S 5 ____
0.033	18.0	20.0	13.0	15.0-0.8	MPPS 1600V 333J 15S 5 ____
0.039	18.0	21.0	14.0	15.0-0.8	MPPS 1600V 393J 15S 5 ____
0.047	18.0	22.5	15.5	15.0-0.8	MPPS 1600V 473J 15S 5 ____
0.015	26.0	12.5	7.5	22.5-0.8	MPPS 1600V 153J 22.5S 5 ____
0.018	26.0	13.0	8.0	22.5-0.8	MPPS 1600V 183J 22.5S 5 ____
0.022	26.0	13.5	8.5	22.5-0.8	MPPS 1600V 223J 22.5S 5 ____
0.027	26.0	14.0	9.0	22.5-0.8	MPPS 1600V 273J 22.5S 5 ____
0.033	26.0	15.0	10.0	22.5-0.8	MPPS 1600V 333J 22.5S 5 ____
0.039	26.0	15.5	10.5	22.5-0.8	MPPS 1600V 393J 22.5S 5 ____
0.047	26.0	17.5	10.5	22.5-0.8	MPPS 1600V 473J 22.5S 5 ____
0.056	26.0	18.5	11.5	22.5-0.8	MPPS 1600V 563J 22.5S 5 ____
0.068	26.0	19.5	12.5	22.5-0.8	MPPS 1600V 683J 22.5S 5 ____
0.082	26.0	21.5	13.0	22.5-0.8	MPPS 1600V 823J 22.5S 5 ____
0.1	26.0	22.5	14.5	22.5-0.8	MPPS 1600V 104J 22.5S 5 ____
0.12	26.0	25.0	15.0	22.5-0.8	MPPS 1600V 124J 22.5S 5 ____
0.15	26.0	27.0	17.0	22.5-0.8	MPPS 1600V 154J 22.5S 5 ____
0.18	26.0	28.5	18.5	22.5-0.8	MPPS 1600V 184J 22.5S 5 ____
0.047	31.0	15.0	10.0	27.5-0.8	MPPS 1600V 473J 27.5S 5 ____
0.056	31.0	16.0	10.5	27.5-0.8	MPPS 1600V 563J 27.5S 5 ____
0.068	31.0	17.5	11.0	27.5-0.8	MPPS 1600V 683J 27.5S 5 ____
0.082	31.0	18.5	11.5	27.5-0.8	MPPS 1600V 823J 27.5S 5 ____
0.1	31.0	19.5	13.0	27.5-0.8	MPPS 1600V 104J 27.5S 5 ____
0.12	31.0	21.5	13.5	27.5-0.8	MPPS 1600V 124J 27.5S 5 ____
0.15	31.0	23.0	15.0	27.5-0.8	MPPS 1600V 154J 27.5S 5 ____
0.18	31.0	25.5	15.5	27.5-0.8	MPPS 1600V 184J 27.5S 5 ____
0.22	31.0	27.0	17.0	27.5-0.8	MPPS 1600V 224J 27.5S 5 ____
0.27	31.0	29.0	19.0	27.5-0.8	MPPS 1600V 274J 27.5S 5 ____
0.33	31.0	31.0	21.0	27.5-0.8	MPPS 1600V 334J 27.5S 5 ____

2000Vdc(600Vac)

Cap. (μF)	Dimensions(mm) W (max.)	H (max.)	T (max.)	Pitch - d	PART NUMBER
0.0027	18.0	10.5	6.0	15.0-0.8	MPPS 2000V 272J 15S 5 ____
0.0033	18.0	11.0	6.5	15.0-0.8	MPPS 2000V 332J 15S 5 ____
0.0039	18.0	11.5	7.0	15.0-0.8	MPPS 2000V 392J 15S 5 ____
0.0047	18.0	12.5	7.0	15.0-0.8	MPPS 2000V 472J 15S 5 ____
0.0056	18.0	13.0	7.5	15.0-0.8	MPPS 2000V 562J 15S 5 ____
0.0068	18.0	13.5	8.0	15.0-0.8	MPPS 2000V 682J 15S 5 ____
0.0082	18.0	14.0	9.0	15.0-0.8	MPPS 2000V 822J 15S 5 ____

0.01	18.0	15.0	9.5	15.0-0.8	MPPS 2000V 103J 15S 5 _____
0.012	18.0	15.5	10.5	15.0-0.8	MPPS 2000V 123J 15S 5 _____
0.015	18.0	17.5	11.0	15.0-0.8	MPPS 2000V 153J 15S 5 _____
0.018	18.0	18.5	11.5	15.0-0.8	MPPS 2000V 183J 15S 5 _____
0.022	18.0	19.5	13.0	15.0-0.8	MPPS 2000V 223J 15S 5 _____
0.027	18.0	21.0	14.0	15.0-0.8	MPPS 2000V 273J 15S 5 _____
0.010	26.0	12.5	7.5	22.5-0.8	MPPS 2000V 103J 22.5S 5 _____
0.012	26.0	13.0	8.0	22.5-0.8	MPPS 2000V 123J 22.5S 5 _____
0.015	26.0	13.5	8.5	22.5-0.8	MPPS 2000V 153J 22.5S 5 _____
0.018	26.0	14.0	9.0	22.5-0.8	MPPS 2000V 183J 22.5S 5 _____
0.022	26.0	15.0	10.0	22.5-0.8	MPPS 2000V 223J 22.5S 5 _____
0.027	26.0	16.0	10.5	22.5-0.8	MPPS 2000V 273J 22.5S 5 _____
0.033	26.0	17.5	11.0	22.5-0.8	MPPS 2000V 333J 22.5S 5 _____
0.039	26.0	18.5	11.5	22.5-0.8	MPPS 2000V 393J 22.5S 5 _____
0.047	26.0	19.5	12.5	22.5-0.8	MPPS 2000V 473J 22.5S 5 _____
0.056	26.0	21.5	13.0	22.5-0.8	MPPS 2000V 563J 22.5S 5 _____
0.068	26.0	22.5	14.5	22.5-0.8	MPPS 2000V 683J 22.5S 5 _____

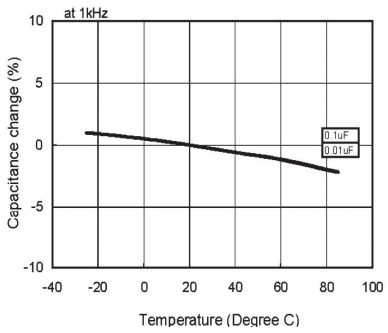
0.082	26.0	25.0	15.0	22.5-0.8	MPPS 2000V 823J 22.5S 5 _____
0.1	26.0	26.5	16.5	22.5-0.8	MPPS 2000V 104J 22.5S 5 _____
0.12	26.0	28.0	18.5	22.5-0.8	MPPS 2000V 124J 22.5S 5 _____
0.022	31.0	14.0	8.5	27.5-0.8	MPPS 2000V 223J 27.5S 5 _____
0.027	31.0	14.5	9.5	27.5-0.8	MPPS 2000V 273J 27.5S 5 _____
0.033	31.0	15.0	10.0	27.5-0.8	MPPS 2000V 333J 27.5S 5 _____
0.039	31.0	16.0	10.5	27.5-0.8	MPPS 2000V 393J 27.5S 5 _____
0.047	31.0	17.5	11.0	27.5-0.8	MPPS 2000V 473J 27.5S 5 _____
0.056	31.0	18.5	12.0	27.5-0.8	MPPS 2000V 563J 27.5S 5 _____
0.068	31.0	19.5	13.0	27.5-0.8	MPPS 2000V 683J 27.5S 5 _____
0.082	31.0	21.5	13.5	27.5-0.8	MPPS 2000V 823J 27.5S 5 _____
0.1	31.0	23.0	14.5	27.5-0.8	MPPS 2000V 104J 27.5S 5 _____
0.12	31.0	25.0	15.5	27.5-0.8	MPPS 2000V 124J 27.5S 5 _____
0.15	31.0	27.0	17.0	27.5-0.8	MPPS 2000V 154J 27.5S 5 _____
0.18	31.0	28.5	19.0	27.5-0.8	MPPS 2000V 184J 27.5S 5 _____
0.22	31.0	31.0	21.0	27.5-0.8	MPPS 2000V 224J 27.5S 5 _____

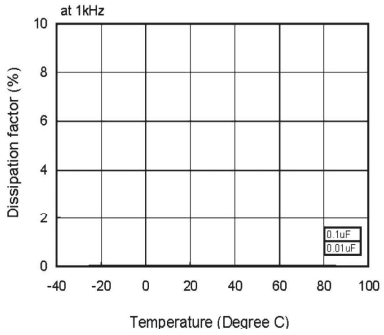
Metallized Polypropylene Film Capacitor

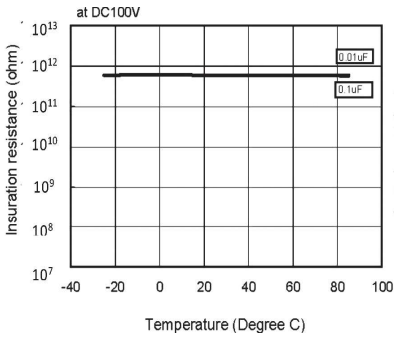
Electrical Characteristics (Typical Data)

1000Vdc Series

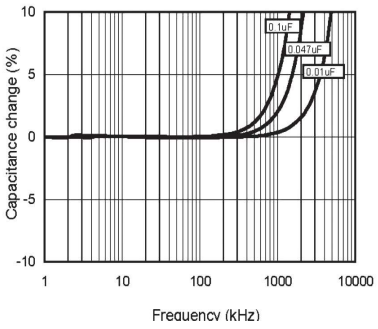
Temperature Characteristics

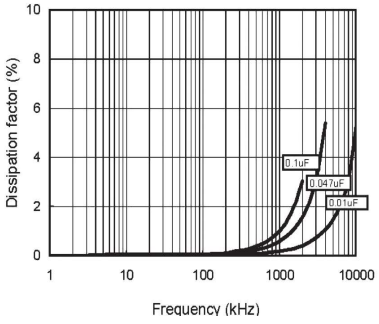


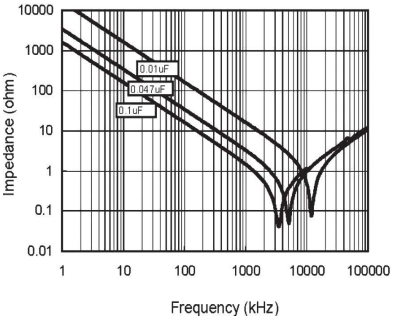




Frequency Characteristics

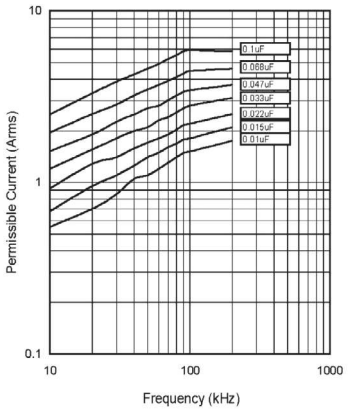






Applicable Specifications

Permissible Current



Pulse Handling Capability(dv/dt)

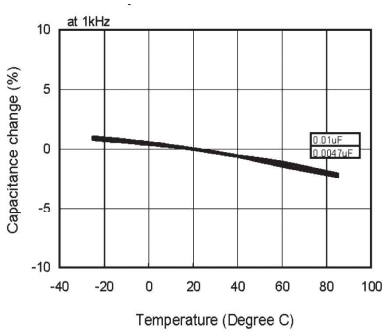
(Max 1000cycles)

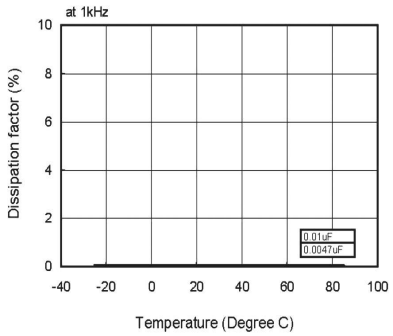
Rating Voltage	Capacitance Value(uF)	Code	dV/dt(V/us)	Current(o-p) (A)
1000VDC	0.0100	103	6000	60.0
	0.0150	153		90.0
	0.0220	223		132.0
	0.0330	333		198.0
	0.0470	473		282.0
	0.0680	683		408.0
	0.1000	104		600.0

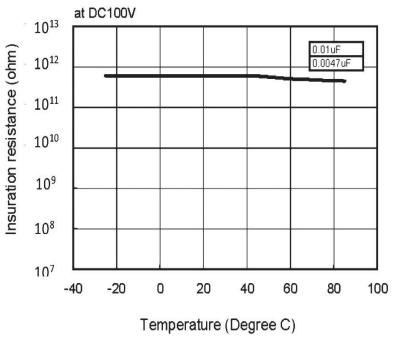
Electrical Characteristics (Typical Data)

1250Vdc Series

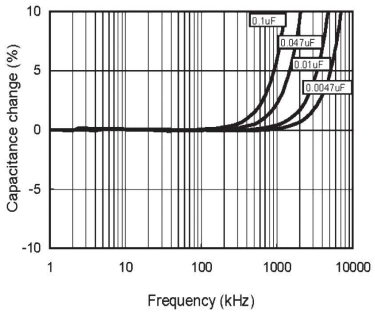
Temperature Characteristics

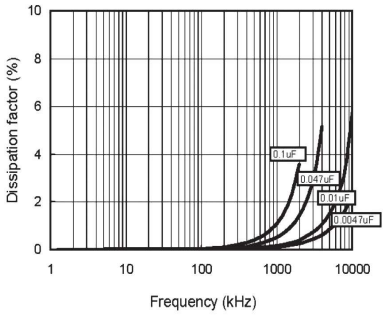


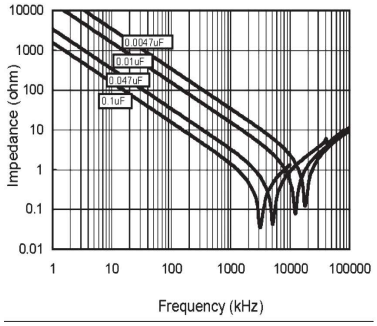




Frequency Characteristics

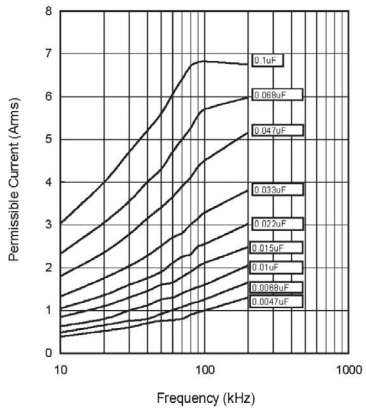






Applicable Specifications

Permissible Current



Pulse Handling Capability(dv/dt)

(Max 1000cycles)

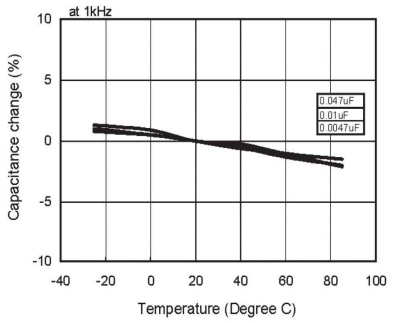
Rating Voltage	Capacitance Value(uF)	Code	dV/dt(V/us)	Current(o-p) (A)
1250VDC	0.0047	472	6000	28.2
	0.0068	682		40.8
	0.0100	103		60.0
	0.0150	153		90.0
	0.0220	223		132.0
	0.0330	333		198.0
	0.0470	473		282.0
	0.0680	683		408.0
	0.1000	104		600.0

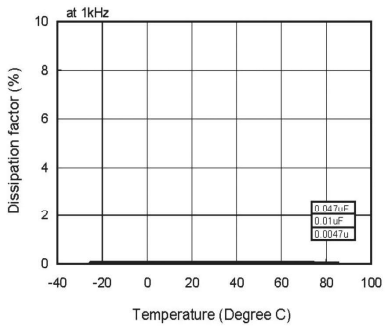
Metallized Polypropylene Film Capacitor

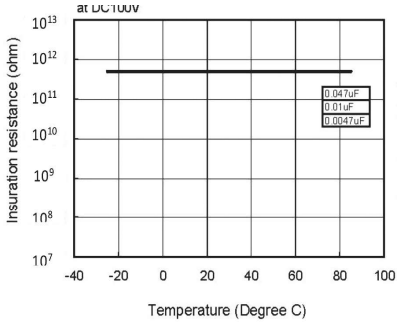
Electrical Characteristics (Typical Data)

1600Vdc Series

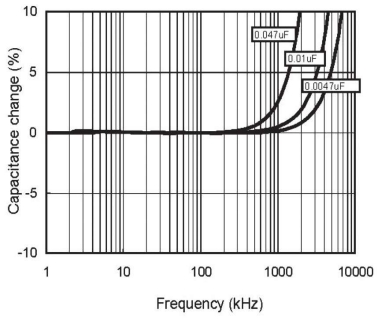
Temperature Characteristics

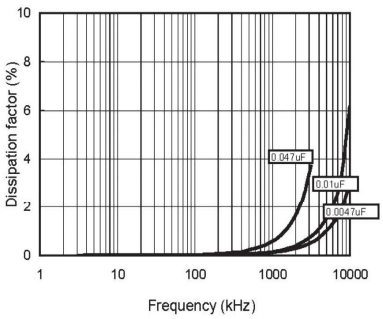


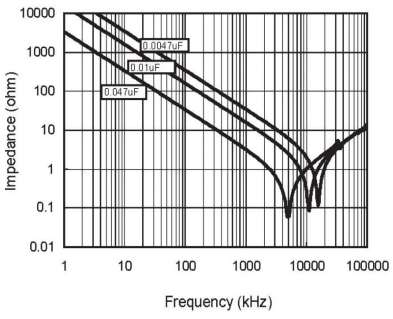




Frequency Characteristics

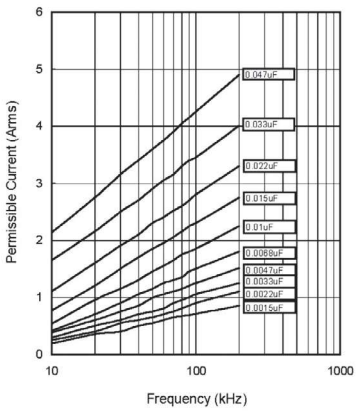






Applicable Specifications

Permissible Current



Pulse Handling Capability(dv/dt)

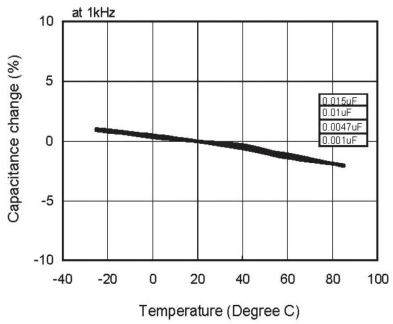
(Max 1000cycles)

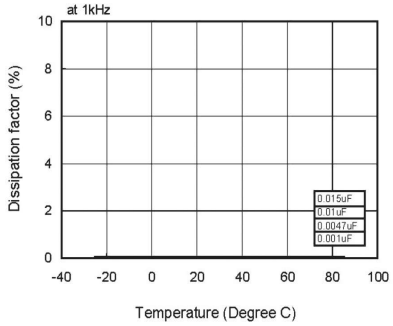
Rating Voltage	Capacitance Value(uF)	Code	dV/dt(V/us)	Current(o-p) (A)
1600VDC	0.0015	152	6000	9.0
	0.0022	222		13.2
	0.0033	332		19.8
	0.0047	472		28.2
	0.0068	682		40.8
	0.0100	103		60.0
	0.0150	153		90.0
	0.0220	223		132.0
	0.0330	333		198.0
	0.0470	473		282.0

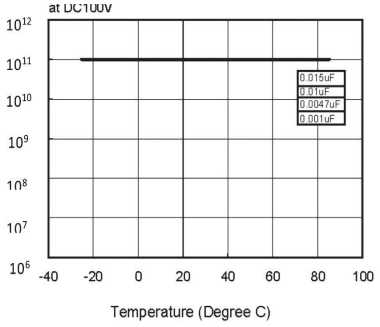
Electrical Characteristics (Typical Data)

2000Vdc Series

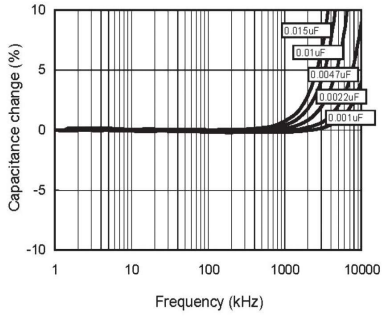
Temperature Characteristics

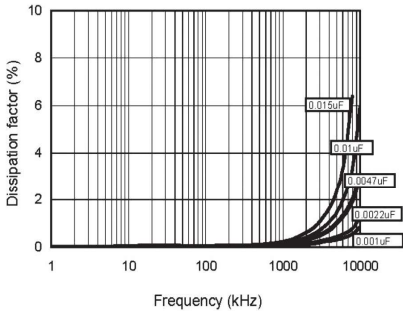


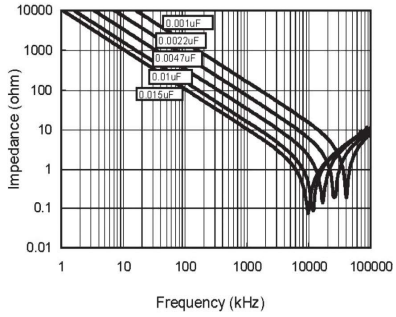




Frequency Characteristics

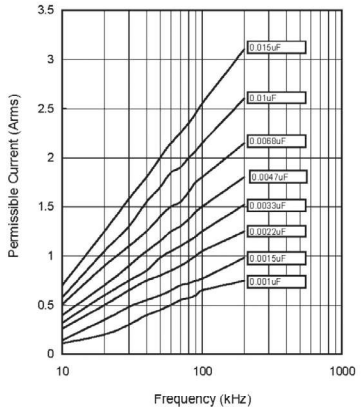






Applicable Specifications

Permissible Current



Pulse Handling Capability(dv/dt)

(Max 1000cycles)

Rating Voltage	Capacitance Value(uF)	Code	dV/dt(V/us)	Current(o-p) (A)
2000VDC	0.0010	102	6000	6.0
	0.0015	152		9.0
	0.0022	222		13.2
	0.0033	332		19.8
	0.0047	472		28.2
	0.0068	682		40.8
	0.0100	103		60.0
	0.0150	153		90.0