

# Metallized film capacitor

**MDX SERIES**

Please request specifications for consideration.  
If you send the email to "Contact us", we will send it.

**Standard**

**Metallized PET film capacitor**

★ Performance

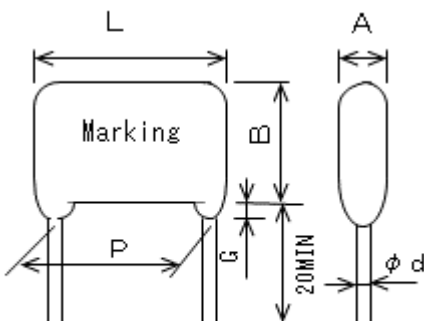
Item	Performance
Temperature range	-40~+85°C (+105°C) (Derate the voltage at +85~+105°C)
Rated Voltage (U <sub>R</sub> )	250VDC, 450VDC, 630VDC
Capacitance range	0.01 ~0.33 μF
Capacitance tolerance	±10%(K)
Insulation resistance (IR)	C ≤ 0.33μF : ≥ 15000MΩ C > 0.33μF : ≥ 5000 Ω · F Rated Voltage : 250VDC 450VDC: (100 VDC for 1min) Rated Voltage : 630VDC: (500 VDC for 1min)
tanδ	≤0.008 (1kHz)



★ Standard dimensions table (MDX)

Parts cord	Rated voltage (V <sub>DC</sub> )	Capacitance (μF)	Cap. tolerance (%)	Dimensions (mm)					Permissible Current (Peak) I <sub>op</sub> (A)	Taping PCS/Package
				A max	B max	L max	P ±0.75	φd		
MDX22E103K	250	0.01	±10	3.7	6.5	7.3	5.0	0.5	1.2	1500
MDX22E153K		0.015		3.7	6.5	7.3	5.0	0.5	1.6	1500
MDX22E223K		0.022		3.7	6.5	7.3	5.0	0.5	1.9	1500
MDX22E333K		0.033		3.7	7.0	7.3	5.0	0.5	2.4	1500
MDX22E473K		0.047		4.4	7.4	7.3	5.0	0.5	3.5	1250
MDX22E683K		0.068		5.0	8.2	7.3	5.0	0.5	5.0	1000
MDX22E104K		0.1		5.8	9.5	7.3	5.0	0.5	7.4	1000
MDX22E154K		0.15		6.4	11.5	7.3	5.0	0.5	11.1	900
MDX22E224K		0.22		5.2	11.3	9.8	7.5	0.5	8.1	1000
MDX22E334K		0.33		6.4	12.5	9.8	7.5	0.5	12.2	900
MDX22E474K		0.47		Please use the FPB series for this range.					12.2	900
MDX22E684K		0.68								
MDX22E105K		1.0								
MDX22E155K		1.5								
MDX22E225K		2.2								
MDX22E335K		3.3								
MDX22E475K		4.7								
MDX22E685K		6.8								
MDX22E106K		10								

■ Component outline



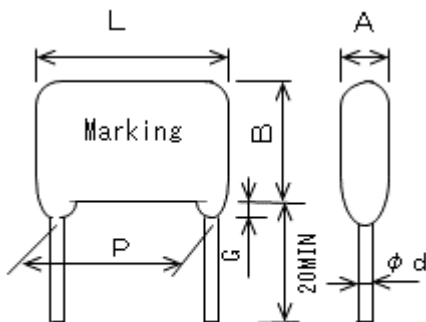
φ0.5 : G = 1.0 MAX  
φ0.8 : G = 1.5 MAX

# Metallized film capacitor

## Standard dimensions table (MDX)

Parts cord	Rated voltage (V <sub>DC</sub> )	Capacitance (μF)	Cap. tolerance (%)	Dimensions (mm)					Permissible Current (Peak) I <sub>op</sub> (A)	Taping PCS/Package		
				A max	B max	L max	P ±0.75	φd				
MDX22W103K	450	0.01	±10	3.5	6.8	9.8	7.5	0.5	1.0	1500		
MDX22W153K		0.015		4.0	6.8	9.8	7.5	0.5	1.5	1250		
MDX22W223K		0.022		4.0	6.8	9.8	7.5	0.5	1.3	1250		
MDX22W333K		0.033		4.2	6.8	9.8	7.5	0.5	1.5	1250		
MDX22W473K		0.047		4.2	7.2	9.8	7.5	0.5	2.2	1250		
MDX22W683K		0.068		4.4	8.3	9.8	7.5	0.5	3.2	1250		
MDX22W104K		0.1		4.5	10.8	9.8	7.5	0.5	4.7	1250		
MDX22W154K		0.15		4.6	10.7	12.5	10.0	0.6	4.4	700		
MDX22W224K		0.22		Please use the FPB series for this range.								
MDX22W334K		0.33										
MDX22W474K		0.47										
MDX22W684K		0.68										
MDX22W105K		1.0										
MDX22W155K		1.5										
MDX22W225K		2.2										
MDX22W335K		3.3										
MDX22W475K		4.7										
MDX22J153K		630							0.015	±10	4.2	8.0
MDX22J223K	0.022		5.0	8.6	9.8	7.5	0.5	2.2	1250			
MDX22J333K	0.033		5.0	11.3	9.8	7.5	0.5	3.3	1000			
MDX22J473K	0.047		6.3	11.2	9.8	7.5	0.5	4.6	1000			
MDX22J683K	0.068		Please use the FPB series for this range.									
MDX22J104K	0.1											
MDX22J154K	0.15											
MDX22J224K	0.22											
MDX22J334K	0.33											
MDX22J474K	0.47											
MDX22J684K	0.68											
MDX22J105K	1.0											
MDX22J155K	1.5											
MDX22J225K	2.2											

### ■ Component outline



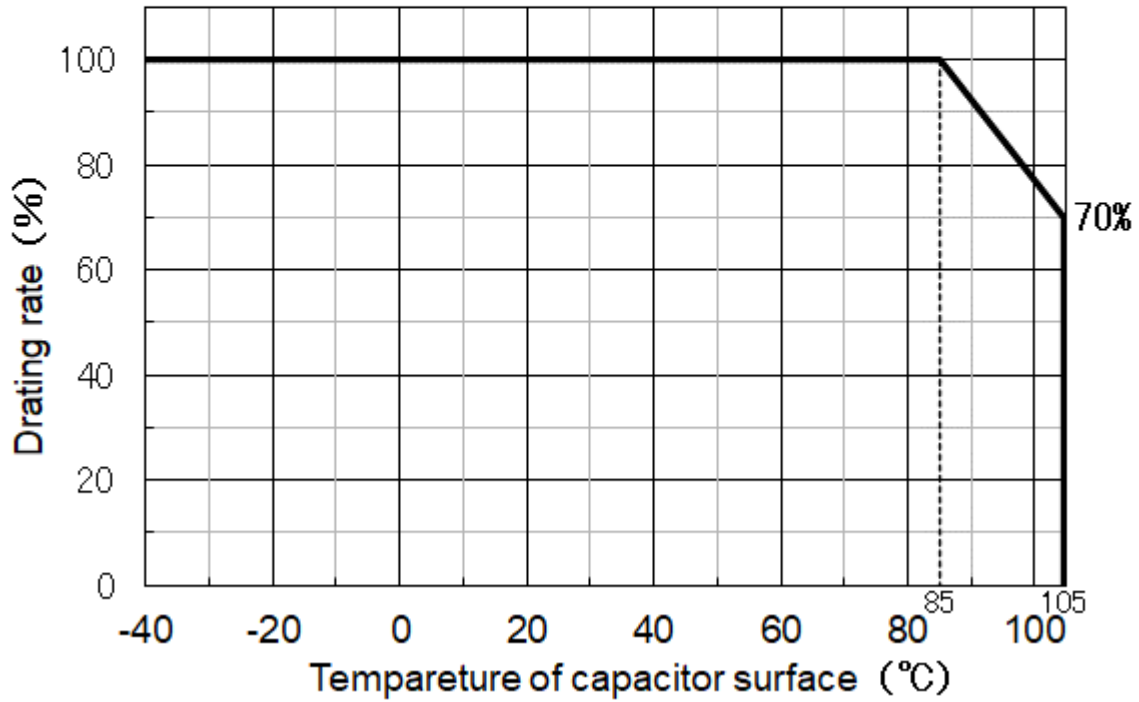
φ0.5 : G = 1.0 MAX  
 φ0.6 : G = 1.5 MAX

# Metallized film capacitor

## THE RELATION BETWEEN MAX OPERATING VOLTAGE AND OPERATING TEMPERATURE

$$\text{Derating (\%)} = \frac{\text{Operating voltage}}{\text{Rated voltage}} \times 100$$

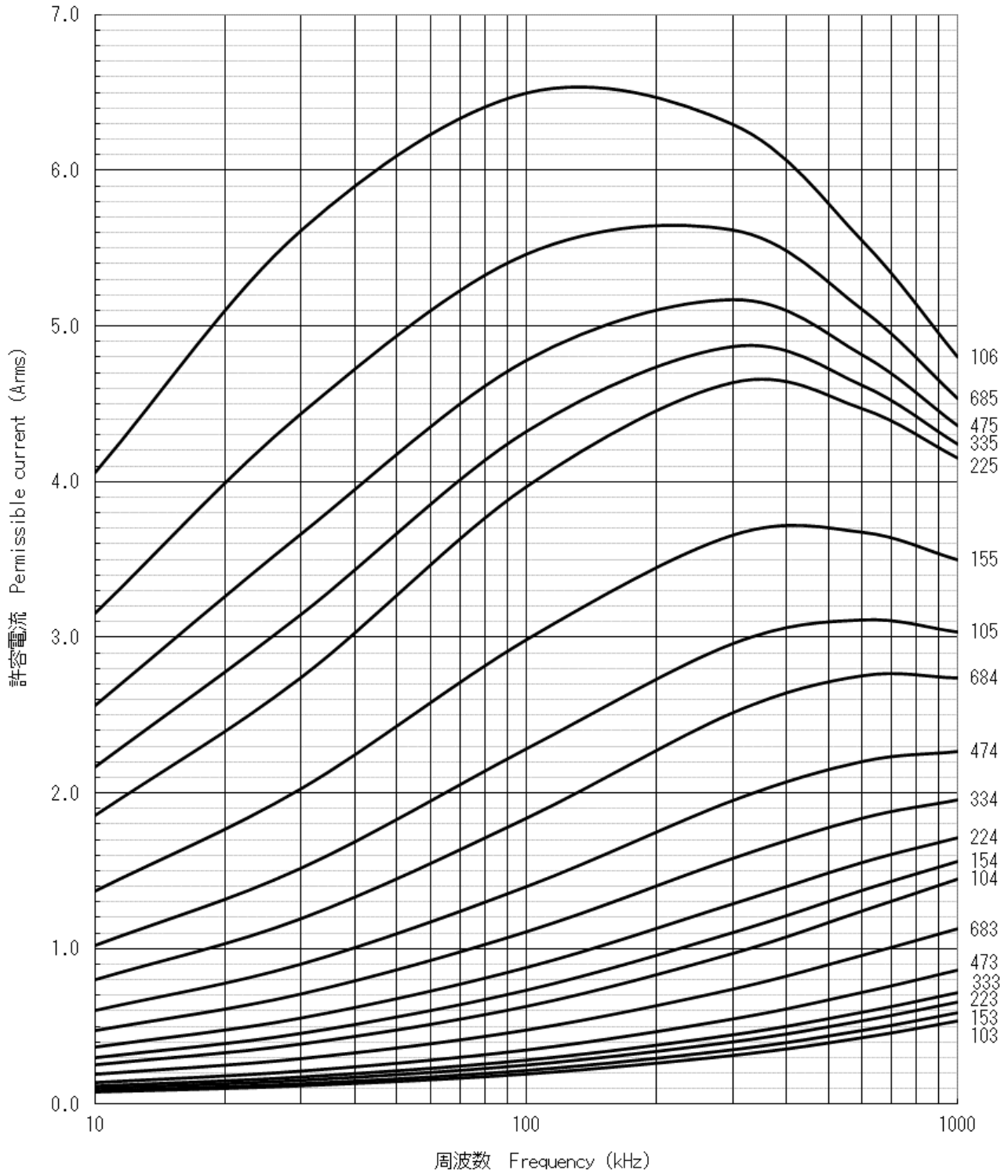
Temperature:  
Capacitor surface temperature



# Metalized film capacitor

Permissible current(Effective value) vs. Frequency

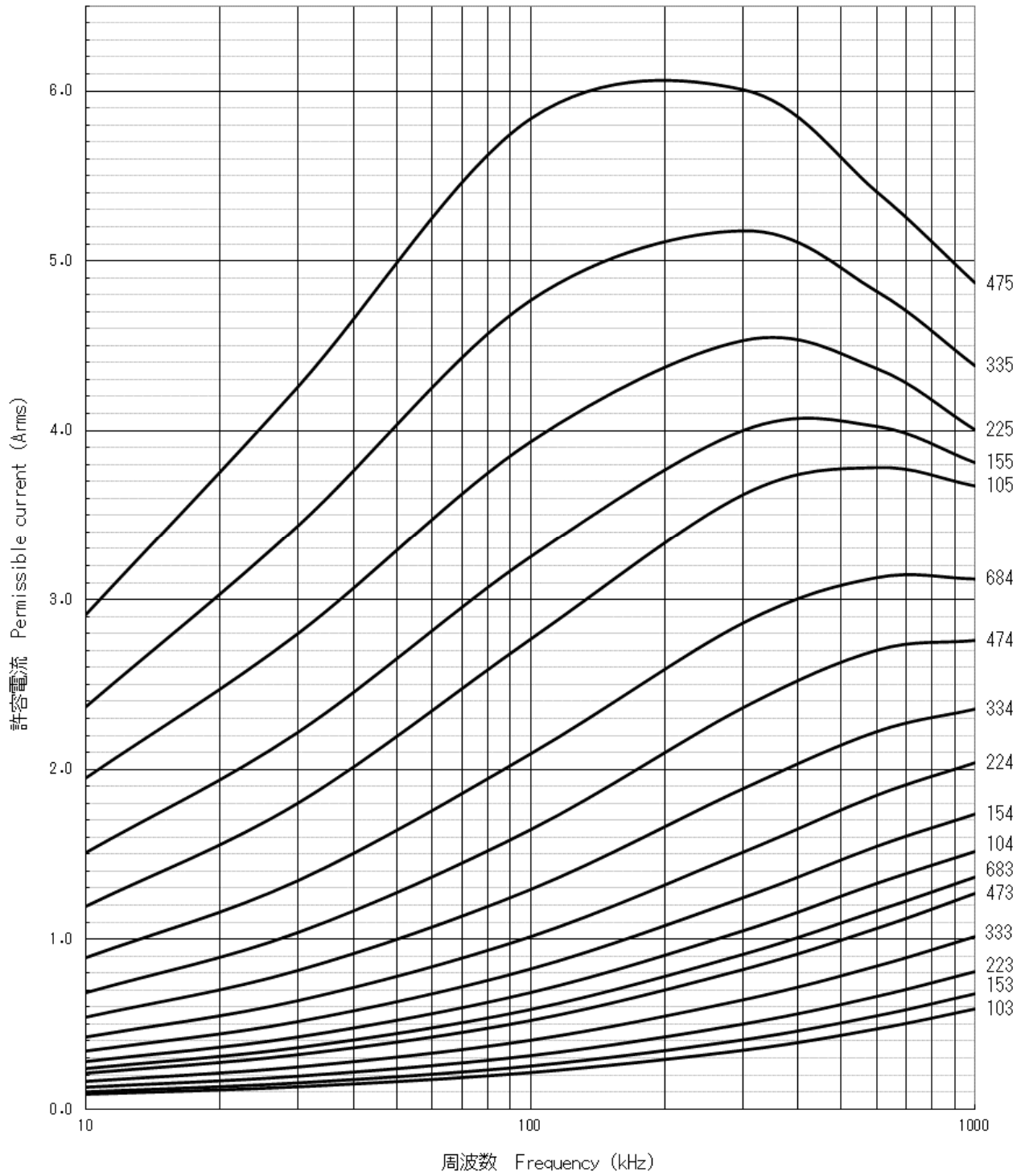
MDX 250VDC



# Metallized film capacitor

Permissible current(Effective value) vs. Frequency

MDX 450VDC



# Metallized film capacitor

Permissible current(Effective value) vs. Frequency

MDX 630VDC

