

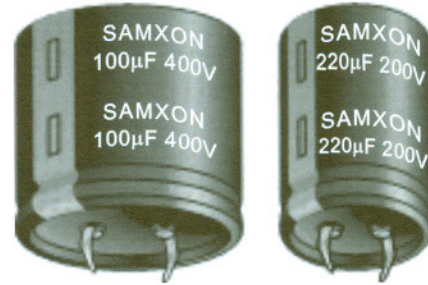
UP Series



Lug/Snap-in Terminal Type(插入/自立型), Overvoltage Resistant Design(耐過電壓品)

FEATURES

- 1. Doesn't spark with DC over voltage.
- 2. Load life:2000 hours at 105°C



SPECIFICATIONS

Item	Performance Characteristics						
Operating Temperature Range	-25 to +105°C						
Rated Working Voltage Range	200 to 450V						
Nominal Capacitance Range	56 to 1200µF						
Capacitance Tolerance	±20%(120Hz, +20°C)						
Leakage Current	$I \leq 3 \sqrt{CV}$ (µA) after 5minutes application of rated working voltage at +20°C						
Dissipation Factor tanδ (120Hz, +20°C)	Working Voltage(V)	200	250	400	450		
	tanδ(max.)	0.15	0.15	0.20	0.20		
Low Temperature Characteristics	Impedance ratio max. at 120Hz						
	Working Voltage(V)	200	250	400	450		
	Z-25°C/Z+20°C	8	8	8	8		
High Temperature Loading	Testing time: 2000 hours	Post test requirements at +20°C					
	Testing temp.: +105°C	Leakage current : ≤ Initial specified value					
	Testing condition:Rated DC working voltage with the max. ripple current	Cap. change : within ±20% of initial measured value-		tanδ : ≤200% of initial specified value			
Shelf Life	At +105°C no voltage applied after 1000 hours and then being stabilized at 20°C the capacitors shall meet the following limits						
	Leakage current : ≤ Initial specified value						
	Cap. change : within ±15% of initial measured value						
	tanδ : ≤150% of initial specified value						
Others	JIS C-5101(IEC 60384)						

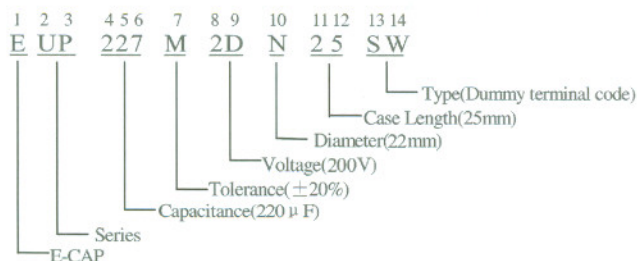
RIPPLE CURRENT MULTIPLIER

Frequency Coefficient

Frequency multiplying factor:  
If capacitors are used to filter circuits at a frequency other than 120Hz, the maximum ripple current must be multiplied by the figure shown in the table below.

Voltage	Coefficient	60	120	1k	10k~50k
200 ~ 250V		0.80	1.00	1.25	1.47
400 ~ 450V		0.80	1.00	1.30	1.47

PART NUMBER SYSTEM(EXAMPLE:200V220 µ F)



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## STANDARD RATING

Voltage(Code)		200V(2D)		250V(2E)		400V(2G)		450V(2W)	
Cap.( $\mu$ F)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
56	566					22x25	0.45		
68	686					22x25	0.51		
82	826					22x30	0.58		
100	107					22x30	0.66		
120	127			22x25	0.68	22x35	0.76		
						25x30	0.76		
150	157					22x40	0.85		
						25x35	0.85		
						30x30	0.85		
180	187	22x25	0.82	22x30	0.87	22x45	0.94	30x35	1.00
				25x25	0.93	25x40	0.95		
						30x30	0.95		
220	227	22x25	0.90	22x30	1.00	25x40	1.24	30x40	1.20
						30x35	1.24		
						35x30	1.24		
270	277	22x30	1.02	22x35	1.14	25x50	1.30		
				25x30	1.13	30x40	1.30		
				30x25	1.25	35x30	1.30		
330	337	22x35	1.20	22x40	1.28	30x45	1.47		
		25x30	1.20	25x35	1.29	35x35	1.47		
390	397	22x35	1.35	22x45	1.42			35x45	1.60
		25x30	1.35	25x40	1.46				
				30x30	1.52				
470	477	22x40	1.45	25x45	1.64				
		25x35	1.45						
		30x30	1.47	30x35	1.67				
560	567	22x45	1.62	25x50	1.82				
		25x35	1.60	30x40	1.87				
		30x30	1.60	35x30	1.99				
680	687	25x40	1.82	30x45	2.12				
		30x35	1.81						
		35x30	1.86	35x35	2.19				
820	827	25x50	2.11	30x50	2.39				
		30x40	2.11						
		35x30	2.11	35x40	2.42				
1000	108	30x45	2.40						
		35x35	2.40						
1200	128	30x50	2.69						
		35x40	2.65						

Maximum Allowable Ripple Current (A rms) at 105°C 120Hz

Case Size $\Phi$ DxL(mm)

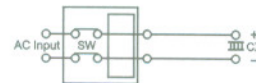
## ◆DC OVERVOLTAGE TEST CONDITIONS

The vent will operate and the capacitor shall become an open circuit without burning materials when the following excess DC voltage is applied.

## ● Test DC voltage

Rated voltage	Normal Capacitance	Current Limit	Test Voltage
200Vdc	<330	4A	300/375Vdc
	$330\mu\text{F} \leq C < 470\mu\text{F}$	5A	
	$\geq 470\mu\text{F}$	7A	
250Vdc	<330 $\mu$ F	4A	350/450Vdc
	$330\mu\text{F} \leq C < 470\mu\text{F}$	5A	
	$\geq 470\mu\text{F}$	7A	
400Vdc	<100 $\mu$ F	2A	500/600Vdc
	$100\mu\text{F} \leq C < 220\mu\text{F}$	4A	
	$\geq 220\mu\text{F}$	7A	
450Vdc	<100 $\mu$ F	2A	550/675Vdc
	$100\mu\text{F} \leq C < 220\mu\text{F}$	4A	
	$\geq 220\mu\text{F}$	7A	

## ● Test circuit



Constant DC voltage/current power supply