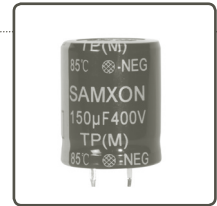


FEATURES

- Directly mountable on printed circuit board without holders.
- Terminal spacing fixed at 10mm for PC board plug in.
- Aluminum case designed with explosion-proof vent.
- Load life: 10,000 hours.



SPECIFICATIONS

Item	Performance Characteristics		
Operating Temperature Range	-25 to +85°C		
Rated Working Voltage Range	200 to 450V		
Nominal Capacitance Range	56 to 2200μF		
Capacitance Tolerance	±20% at 120Hz, +20°C		
Leakage Current	$I \leq 3\sqrt{CV}$ (μA) after 5 minutes application of rated working voltage at +20°C		
tan δ (120Hz, +20°C)	Working Voltage (V) tan δ (max.)	200~250 0.15	400~450 0.15
Low Temperature Characteristics	Impedance ratio max. at 120Hz Working Voltage (V) Z-25°C / Z+20°C	200~250 3	400~450 8
High Temperature Loading	Test time : 10,000 hours Test temperature : +85°C Test conditions : Rated DC working voltage with rated ripple current Post test requirements at +20°C Leakage current : ≤Initial specified value Cap. change : within ±30% of the initial measured value tan δ : ≤300% of the initial specified value		
Shelf Life	At +85°C no voltage applied after 1,000 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 the initial measured value tan δ : ≤150% of the initial specified value		
Industrial Standard	JIS C - 5101-4 (IEC 60384-4)		

RIPPLE CURRENT MULTIPLIER

Frequency Coefficient

Coefficient Rated Voltage	Freq. (Hz)	60	120	1k	10~50k
200~250V		0.80	1.00	1.15	1.47
400~450V		0.80	1.00	1.15	1.47

PART NUMBER SYSTEM (EXAMPLE : 200V 470μF)

1	23	456	7	89	10	1112	1314
E	TP	477	M	2D	O	30	SW

Type (Terminal Code)

Case Length (30mm)

Diameter (25mm)

Voltage (200V)

Tolerance ($\pm 20\%$)

Capacitance (470μF)

Series

E-CAP

STANDARD RATINGS

Voltage (Code)		200V (2D)		250V (2E)		400V (2G)		450V (2W)	
Cap. (μF)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
56	566							20 x 25	0.58
68	686					20 x 25	0.71	20 x 30	0.67
								22 x 25	0.68
82	826					20 x 30	0.78	20 x 35	0.76
						22 x 25	0.80	22 x 30	0.82
100	107					20 x 30	0.90	20 x 35	0.84
						22 x 30	0.94	22 x 35	0.90
								25 x 25	0.92
120	127					20 x 35	1.02	20 x 40	0.94
						22 x 30	1.04	22 x 35	1.02
								25 x 30	1.04
						25 x 25	1.08	30 x 25	1.07
150	157					20 x 40	1.16	22 x 40	1.12
						22 x 35	1.18	25 x 35	1.19
						25 x 30	1.21	30 x 30	1.23
180	187			20 x 25	1.14	22 x 40	1.34	22 x 50	1.26
						25 x 35	1.37	25 x 40	1.33
						30 x 25	1.45	30 x 30	1.38
220	227	20 x 25	1.13	20 x 30	1.20	22 x 45	1.50	25 x 45	1.51
				22 x 25	1.18	25 x 35	1.56	30 x 35	1.56
						30 x 30	1.58	35 x 30	1.58
270	277	20 x 30	1.32	20 x 30	1.35	25 x 40	1.70	25 x 50	1.65
		22 x 25	1.30	22 x 30	1.43	30 x 35	1.73	30 x 40	1.80
								35 x 35	1.81
330	337	20 x 30	1.49	20 x 35	1.60	25 x 50	1.90	30 x 45	2.02
				22 x 30	1.58	30 x 40	1.95		
		22 x 25	1.44	25 x 25	1.53	35 x 30	1.95	35 x 35	2.05
390	397	20 x 35	1.66	20 x 40	1.83	30 x 40	2.15	30 x 50	2.24
		22 x 30	1.65	22 x 35	1.79				
		25 x 25	1.63	25 x 30	1.79	35 x 35	2.17	35 x 40	2.27
470	477	20 x 40	1.93	22 x 40	2.05	30 x 50	2.39		
		22 x 35	1.88	25 x 35	2.05			35 x 45	2.55
		25 x 30	1.86	30 x 25	1.94	35 x 40	2.42		
560	567	22 x 40	2.08	22 x 45	2.36				
		25 x 30	2.05	25 x 35	2.24	35 x 45	2.71		
		30 x 25	2.05	30 x 30	2.24				
680	687	22 x 45	2.36	25 x 40	2.54				
		25 x 35	2.36			35 x 50	2.95		
		30 x 30	2.36	30 x 35	2.58				
820	827	22 x 50	2.68	25 x 50	2.87				
		25 x 40	2.66	30 x 35	2.84				
		30 x 30	2.62	35 x 30	2.82				
1000	108	25 x 45	3.12	30 x 45	3.39				
		30 x 35	3.00						
		35 x 30	2.96	35 x 35	3.31				
1200	128	25 x 50	3.44	30 x 50	3.80				
		30 x 40	3.44						
		35 x 35	3.40	35 x 40	3.66				
1500	158	30 x 50	3.93	35 x 45	4.12				
		35 x 40	3.87						
1800	188	35 x 45	4.37	35 x 50	4.31				
2200	228	35 x 50	5.00						

Maximum Allowable Ripple Current (Arms) at 85°C 120Hz

Case Size ΦD x L (mm)

Specifications are subject to change without notice. Should a safety or technical concern arise regarding the product, please be sure to contact our sales offices or agents immediately.