

CapXon LP Series

LP Series Snap-in Type 85°C

Features

- ◆ Directly mountable on printed circuit board, without holders.
- ◆ Aluminum case designed explosion-proof vent.
- ◆ For detail specifications, please refer to Engineering Bulletin No. E106



Specifications

Item	Performance Characteristics						
Operating Temperature Range	-40 to +85°C	-25 to +85°C					
Rated Voltage Range	10 to 100 VDC	160 to 450 VDC					
Capacitance Range	470 to 68000 µF	47 to 2700 µF					
Capacitance Tolerance	±20% (120Hz, +20°C)						
Leakage Current (+20°C, max.)	I ≤ 0.02CV After 5 minutes with rated working voltage applied.						
Dissipation Factor (tan δ)	Less than the value under table (%)						
	µF \ WVDC	10~16	25~35	50~63	80~100	160~250	315~450
	47~390	—	—	—	—	15	20
	470~3900	25	20	20	20	15	20
	4700~8200	35	30	30	25	—	—
	10000~22000	40	35	30	—	—	—
27000~47000	45	40	35	—	—	—	
56000~68000	50	45	—	—	—	—	
Low Temperature Characteristics (120Hz)	Impedance ratio max. -25°C \ +20°C : 3 -40°C \ +20°C : 12						
Load Life	Test conditions Duration time :2000 Hrs Ambient temperature :+85°C Applied voltage :Rated DC working voltage After test requirements at +20°C Capacitance change :≤ ±20% of the initial measured value Dissipation factor :≤ 200% of the initial specified value Leakage current :≤ The initial specified value						
Shelf Life	Test conditions Duration time :1000 Hrs Ambient temperature :+85°C Applied voltage :None After test requirements at +20°C : Same limits as Load life. Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.						

Multiplier for Ripple Current vs. Frequency

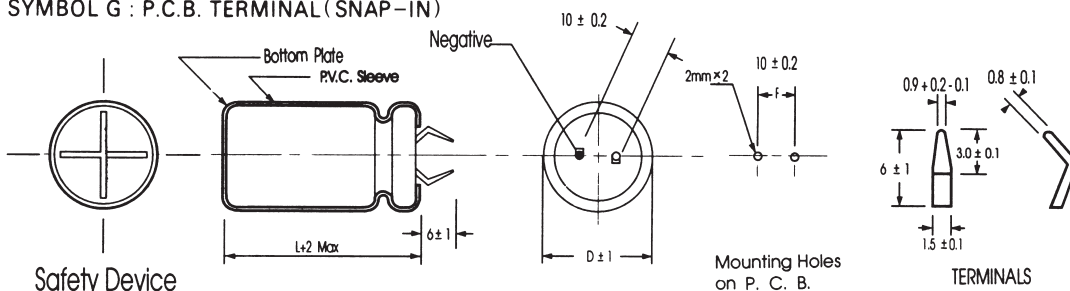
CAP(µF) \ Frequency(Hz)	50(60)	120	1K	10K	50K-100K
10 < CAP ≤ 100	0.8	1	1.36	1.48	1.53
100 < CAP ≤ 1000	0.8	1	1.25	1.35	1.38
1000 < CAP	0.8	1	1.17	1.25	1.28

Multiplier for Ripple Current vs. Temperature

Temperature(°C)	45	60	70	85
Multiplier	1.55	1.30	1.20	1.00

Diagram of Dimensions:(unit:mm)

SYMBOL G : P.C.B. TERMINAL (SNAP-IN)



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Case Size

φ DxL(mm)

WV(SV) ψ D μ F	10 (13)								16 (20)								
	22		25		30		35		22		25		30		35		
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	
4700	22x21	2.40								22x21	2.40						
6800	22x26	2.84								22x26	2.84						
8200	22x26	2.90								22x26	2.90						
10000	22x31	3.06	25x26	3.06						22x31	3.06	25x26	3.06				
12000	22x31	4.43	25x26	3.43						22x31	3.43	25x26	3.43				
15000	22x36	3.94	25x31	3.94						22x36	3.94	25x31	3.94				
18000	22x41	4.34	25x31	4.34						22x41	4.34	25x31	4.34				
22000	22x46	4.80	25x36	4.80	30x31	4.80				22x46	4.80	25x36	4.80	30x31	4.80		
27000			25x46	7.57	30x36	7.57						25x46	7.57	30x36	7.57		
33000			25x51	8.20	30x41	8.20	35x32	8.20				25x51	8.20	30x41	8.20	35x32	8.20
39000					30x46	8.33	35x37	8.33						30x46	8.33	35x37	8.33
47000					30x51	8.96	35x42	8.96						30x51	8.96	35x42	8.96
56000							35x47	10.5						30x56	10.5	35x52	10.8
68000							35x52	10.8									

WV(SV) ψ D μ F	25 (32)								35 (44)								
	22		25		30		35		22		25		30		35		
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	
2200										22x26	2.18						
3300										22x26	2.46						
3900										22x31	2.64						
4700	22x26	2.64								22x31	2.68	25x26	2.68				
5600	22x31	2.78															
6800	22x31	2.93	25x26	2.93						22x36	3.06	25x31	3.06				
8200	22x31	3.05	25x26	3.05													
10000	22x36	3.43	25x31	3.43	30x26	3.43				22x46	3.60	25x41	3.60	30x31	3.60		
12000	22x41	3.84	25x36	3.84	30x31	3.84						25x46	3.92	30x36	4.08	35x32	4.08
15000	22x51	4.39	25x41	4.39	30x31	4.39						25x51	4.08	30x41	3.92	35x32	3.92
18000			25x46	4.80	30x36	4.80								30x46	4.70	35x37	4.70
22000			25x51	5.40	30x41	5.40								30x51	5.45	35x42	5.45
27000					30x46	5.97	35x37	5.97								35x47	5.78
33000					30x51	6.24	35x42	6.24								35x52	6.36
39000							35x47	7.10									
47000							35x52	7.60									

WV(SV) ψ D μ F	50 (63)								63 (79)								
	22		25		30		35		22		25		30		35		
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	
1000										22x26	1.58						
1500	22x26	1.44								22x26	1.68						
2200	22x26	2.04								22x31	2.52	25x26	2.52				
2700	22x31	2.30								22x36	2.82	25x31	2.82				
3300	22x31	2.64	25x26	2.64						22x41	3.12	25x31	3.12	30x26	3.12		
3900										22x46	3.21	25x36	3.21	30x31	3.21		
4700	22x36	2.88	25x31	2.88	30x26	2.88				22x51	3.28	25x41	3.28			35x27	3.28
5600	22x41	3.06	25x36	3.06	30x31	3.06						25x46	3.86	30x36	3.86	35x32	3.86
6800	22x51	3.24	25x41	3.24	30x31	3.24						25x51	4.32	30x41	4.32	35x32	4.32
8200			25x46	3.48	30x36	3.48								30x46	4.44	35x37	4.44
10000			25x51	3.96	30x41	3.96	35x32	3.96								35x47	4.77
12000					30x46	4.10	35x37	4.10									
15000					30x51	4.70	35x42	4.70								35x63	5.04
18000							35x47	5.31									
22000							35x52	5.85									

Ripple Current (A, rms) at 85°C 120Hz

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φ DxL(mm)

WV(SV) ψ D μ F	80 (100)								100 (125)							
	22		25		30		35		22		25		30		35	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
470									22x21	1.34						
680	22x26	1.34							22x26	1.53						
1000	22x26	1.62							22x31	1.62	25x26	1.62				
1200	22x31	1.65							22x36	1.74	25x31	1.74				
1500	22x31	1.76	25x26	1.76					22x41	1.85	25x36	1.85	30x31	1.85		
1800	22x36	1.82	25x31	1.82					22x46	2.20	25x41	2.20	30x31	2.20		
2200	22x41	2.52	25x31	2.52	30x26	2.52			22x51	2.64	25x41	2.64	30x31	2.64		
2700	22x46	2.76	25x36	2.76	30x31	2.76					25x46	3.16	30x36	3.16		
3300	22x51	3.24	25x41	3.24	30x31	3.24					25x51	3.42	30x41	3.42		
3900			25x46	3.40	30x36	3.40							30x46	3.58	35x37	3.58
4700			25x51	3.60	30x41	3.60							30x51	3.72	35x42	3.72
5600					30x46	3.78	35x37	3.78							35x47	3.72
6800					30x51	4.60	35x42	4.60							35x52	4.1
8200							35x52	4.92								
10000							35x63	5.04								

WV(SV) ψ D μ F	160 (200)								200 (250)							
	22		25		30		35		22		25		30		35	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
150									22x21	0.96						
180	22x21	1.12							22x26	1.00						
220	22x26	1.20							22x26	1.36						
270	22x26	1.35							22x31	1.50						
330	22x31	1.44							22x31	1.89	25x26	1.89				
390	22x31	1.66	25x26	1.66					22x31	1.92	25x31	1.92				
470	22x36	1.76	25x31	1.76					22x36	2.23	25x31	2.23	30x26	2.23		
560	22x36	2.03	25x31	2.03	30x26	2.03			22x41	2.57	25x41	2.57	30x26	2.57		
680	22x41	2.36	25x36	2.36	30x31	2.36			22x46	2.98	25x36	2.98	30x31	2.98		
820	22x46	2.72	25x41	2.72	30x36	2.72					25x46	3.26	30x36	3.26	35x27	3.26
1000			25x46	3.13	30x41	3.13	35x32	3.13			25x51	3.92	30x41	3.92	35x32	3.92
1200			25x51	3.44	30x36	3.44	35x37	3.44					30x46	4.25	35x37	4.25
1500					30x46	3.96	35x37	3.96					30x51	4.99		
1800					30x51	4.47	35x42	4.47							35x47	5.84
2200							35x47	4.65							35x52	6.07
2700							35x52	4.76								

WV(SV) ψ D μ F	220 (270)							
	22		25		30		35	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
150	22x21	0.75						
180	22x26	0.95						
220	22x26	1.10						
270	22x31	1.30	25x26	1.30				
330	22x31	1.55	25x26	1.55				
390	22x36	1.65	25x31	1.65				
470	22x41	1.85	25x36	1.85	30x26	1.85		
560	22x46	2.20	25x41	2.20	30x31	2.20	35x27	2.20
680	22x51	2.30	25x46	2.30	30x36	2.30	35x27	2.30
820			25x51	2.60	30x41	2.60	35x32	2.60
1000			25x56	3.20	30x46	3.20	35x37	3.20
1200					30x51	3.70	35x42	3.70
1500					30x56	3.85	35x47	3.85
1800							35x52	4.00
2200							35x57	4.20
2700								

Ripple Current (A, rms) at 85°C 120Hz

CapXon LP Series

φ DxL(mm)

WV(SV) ψ D μ F	250 (300)										350 (400)									
	22		25		30		35		40		22		25		30		35		40	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
100												22x26	0.76							
120	22x21	0.85										22x31	0.89	25x26	0.89					
150	22x26	0.98										22x36	0.99	25x31	0.99	30x26	0.99			
180	22x31	1.12										22x41	1.15	25x36	1.15	30x26	1.15			
220	22x31	1.36	25x26	1.36								22x46	1.40	25x41	1.40	30x31	1.40	35x27	1.40	
270	22x31	1.60	25x31	1.60										25x46	1.63	30x36	1.63	35x27	1.63	
330	22x36	1.87	25x31	1.87	30x26	1.87								25x51	1.88	30x41	1.88	35x32	1.88	
390	22x41	2.04	25x36	2.04	30x31	2.04										30x46	2.12	35x37	2.12	
470	22x46	2.38	25x41	2.38	30x31	2.38										30x51	2.41	35x42	2.41	
560			25x46	2.81	30x36	2.81	35x27	2.81										35x47	2.90	
680			25x51	3.11	30x41	3.11	35x32	3.11										35x52	3.20	
820					30x46	3.55	35x37	3.55												
1000					30x51	4.00	35x42	4.00												
1200							35x47	4.55												
1500							35x52	5.34												
1800									40x52	6.11										

WV(SV) ψ D μ F	400 (450)										450 (500)										
	22		25		30		35		40		22		25		30		35		40		
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	
47	22x21	0.42										22x26	0.36								
68	22x31	0.51										22x31	0.50								
82	22x26	0.83										22x31	0.89	25x26	0.89						
100	22x31	1.03	25x26	1.03								22x36	1.03	25x31	1.03						
120	22x31	1.07	25x26	1.07								22x41	1.19	25x36	1.19						
150	22x36	1.26	25x31	1.26	30x26	1.26						22x51	1.39	25x41	1.39	30x31	1.39				
180	22x41	1.46	25x36	1.46	30x31	1.46						22x51	1.52	25x46	1.52	30x36	1.52				
220	22x51	1.75	25x41	1.75	30x36	1.75								25x51	1.76	30x41	1.76	35x37	1.76		
270			25x46	1.96	30x36	1.96	35x32	1.96								30x46	2.00	35x37	2.00		
330			25x51	2.26	30x41	2.26	35x37	2.26								30x46	2.29	35x37	2.29		
390					30x46	2.50	35x42	2.50										35x42	2.54	40x37	2.54
470							35x47	2.80	40x37	2.80								35x47	2.89	40x42	2.89
560							35x52	3.16	40x46	3.20										40x52	3.26
680									40x52	3.69											

Ripple Current (A, rms) at 85°C 120Hz