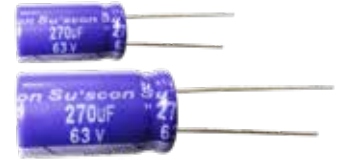


HX series

- 105°C High ripple and low impedance, long life: 6000 hours~10000 hours
- Suited for LCD TV BLU Inverter, SMPS, IP-Board, Adaptor etc..
- 105°C耐高纹波，低阻抗，寿命：6000小時~10000小时。
- 適用背光模组转换器 开关电源，适配器等。



SPECIFICATIONS

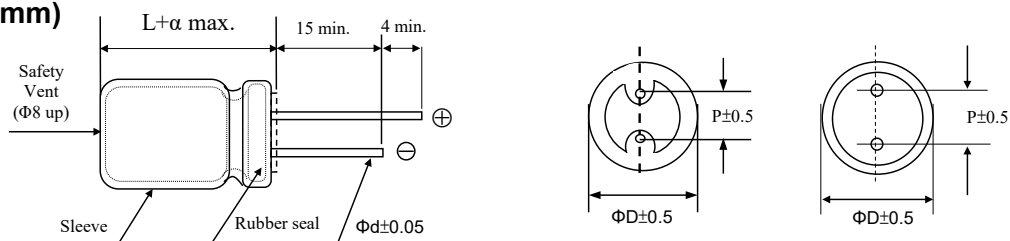
Items 項目	Characteristics 特性									
Capacitance Tolerance 靜電容量誤差	± 20%(120Hz,20°C)									
Operating Temperature Range 適用溫度範圍	-40 ~ +105°C									
Rated Voltage Range 額定電壓範圍	6.3 ~ 100VDC									
Leakage Current 洩漏電流	I ≤ 0.01CV or 3 (μA) which is greater.(After 2 minutes application of DC rated voltage, at 20 °C)									
Dissipation Factor 散逸因素(tan δ)	Measurement Frequency: 120Hz. Temperature: 20°C									
	Rated Voltage(V)	6.3	10	16	25	35	50	63	80	100
	tan δ (Max)	0.22	0.19	0.16	0.14	0.12	0.1	0.09	0.08	0.08
	When nominal capacitance over 1000μF, tanδ shall be added 0.02 to the listed value with increase of every 1000μF.									
Low Temperature Stability 低溫特性 Impedance Ratio(Max) 阻抗比率(最大值)	Measurement Frequency: 120Hz.									
	Rated Voltage(V)	6.3	10	16	25	35	50	63	80	100
	Z(-25°C)/Z(20°C)	2	2	2	2	2	2	2	2	2
	Z(-40°C)/Z(20°C)	3	3	3	3	3	3	3	3	3
Load Life 負荷壽命	Case size(ΦD)	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied for varied hours according to varied ϕ and voltage [please refer to below sheet] at 105°C.								
		6.3V			10~50V			63~100V		
	Φ5~Φ6.3	6000hrs			7000hrs			6000hrs		
	Φ8x11.5L	8000hrs			9000hrs			8000hrs		
	Φ8x15L~Φ20L	9000hrs			10000hrs			9000hrs		
	Φ10x12.5L	9000hrs								
	Φ10x16L~25L>Φ10	10000hrs								
	Rated Voltage(V)	6.3~10 V				16~100 V				
	Capacitance Change	Within ± 30% of Initial Value				Within ± 25% of Initial Value				
	tan δ	200% or less of Initial Specified Value								
	Leakage Current	Initial Specified Value or less								
	Shelf Life 放置壽命	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours 105°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to them 4.1 of JIS C5101-4.								
Capacitance Change		Within ± 20% of Initial Value								
tan δ		200% or less of Initial Specified Value								
Leakage Current		Initial Specified Value or less								
Standards 參照標準	IEC 60384-4(JIS C5101-4)									

Frequency Coefficient of Permissible Ripple Current

Capacitance (μF)	Frequency (Hz)			
	120	1K	10K	100K
5.6 ~ 180	0.40	0.70	0.90	1.00
220 ~ 560	0.50	0.85	0.94	1.00
680 ~ 1800	0.60	0.87	0.95	1.00
2200 ~ 3900	0.75	0.90	0.95	1.00
4700 ~ 18000	0.85	0.95	0.98	1.00

HX series

DIMENSIONS(mm)



ΦD	5	6.3	8	10	12.5	16	18
P	2.0	2.5	3.5	5	5	7.5	7.5
Φd	0.5	0.5	0.5	0.6	0.6	0.8	0.8

α	(L < 20) 1.5
	(L ≥ 20) 2.0

STANDARD RATINGS

DxL(mm), R.C : (mA rms) at 105°C 100kHz, IMP:(Ω max) at 20°C, 100kHz.

Cap (μF)	V	6.3			10			16			25		
		D x L	R.C.	IMP	D x L	R.C.	IMP	D x L	R.C.	IMP	D x L	R.C.	IMP
68											5x11	450	0.380
120								5x11	460	0.380			
150					5x11	460	0.380				6.3x11	700	0.170
220	5x11	350	0.380										
270								6.3x11	700	0.160	8x11.5	1200	0.075
330					6.3x11	700	0.160				8x11.5	1210	0.074
470											8x15	1610	0.058
560	6.3x11	540	0.170					8x11.5	1200	0.075	10x12.5	1700	0.052
680					8x11.5	1200	0.075	8x15	1600	0.059	8x20	1970	0.040
					8x15	1600	0.058	8x15	1610	0.059	10x16	2000	0.037
820								10x12.5	1700	0.053			
1000	8x11.5	945	0.074		8x15	1610	0.058	8x20	1970	0.040	10x20	2500	0.028
					8x20	1960	0.041	10x16	2000	0.038	12.5x16	2400	0.110
1200					10x12.5	1700	0.053						
1200	8x15	1250	0.059		8x20	1970	0.040	10x16	2000	0.037	10x25	2910	0.026
1200	10x12.5	1330	0.053		10x16	2000	0.037						
1500	8x20	1510	0.041					10x20	2520	0.027	12.5x20	2610	0.024
								12.5x16	2400	0.035			
1800								10x25	2910	0.026	12.5x25	3200	0.019
					12.5x16	2400	0.035						
2200					10x25	2910	0.023	12.5x20	2610	0.024	12.5x30	3660	0.018
											16x20	3330	0.021
2700	10x20	1965	0.027		12.5x20	2610	0.024	12.5x25	3200	0.018	12.5x35	4120	0.016
	12.5x16	1900	0.035										
3300	10x25	2260	0.026		12.5x25	3060	0.090	12.5x30	3660	0.018	16x25	3810	0.017
								16x20	3250	0.021	18x20	3450	0.020
3900	12.5x20	2485	0.024		12.5x25	3200	0.019	16x20	3330	0.021			
4700	12.5x25	2910	0.019		12.5x30	3660	0.018	16x25	3650	0.017	16x31.5	4100	0.016
					16x20	3330	0.021	18x20	3450	0.020	18x25	3880	0.016
5600	12.5x25	2910	0.019		12.5x35	4120	0.016	16x25	3810	0.017	16x35.5	4280	0.014
					18x20	3450	0.020				18x31.5	4190	0.014
6800	12.5x30	3450	0.018		16x25	3810	0.017	16x31.5	4100	0.016	16x40	4580	0.013
	16x20	3250	0.021					18x25	3880	0.016	18x35.5	4380	0.012
8200	12.5x35	3570	0.016		16x31.5	4100	0.016	16x35.5	4280	0.014	18x40	4960	0.011
	18x20	3450	0.020		18x25	3880	0.016	18x31.5	4190	0.014			
10000	16x25	3630	0.017		16x35.5	4280	0.014	16x40	4580	0.013			
					18x31.5	4190	0.014	18x35.5	4380	0.012			
12000	16x31.5	4100	0.016		16x40	4580	0.013	18x40	4960	0.011			
	18x25	3880	0.016		18x35.5	4380	0.012						
15000	16x35.5	4280	0.014		18x40	4960	0.011						
	18x31.5	4190	0.014										
18000	16x40	4580	0.013										
	18x35.5	4380	0.012										
22000	18x40	4960	0.011										

HX series

STANDARD RATINGS

DxL(mm), R.C : (mA rms) at 105°C 100kHz , IMP:(Ω max) at 20°C,100kHz.

Cap (μF)	V Item	35			50			63		
		D x L	R.C.	IMP	D x L	R.C.	IMP	D x L	R.C.	IMP
8.2										
12										
18								5x11	240	0.520
27					5x11	300	0.480			
33										
39								6.3x11	420	0.240
47		5x11	450	0.380				6.3x11	430	0.240
56										
					6.3x11	700	0.180			
68								8x11.5	720	0.150
82								8x11.5	720	0.150
100		6.3x11	700	0.170	8x11.5	1200	0.085	8x15	990	0.100
120								8x20	1200	0.077
					8x15	1600	0.065	10x12.5	990	0.090
150					10x12.5	1280	0.073	8x20	1200	0.077
180		8x11.5	1200	0.075	8x20	1960	0.049	10x16	1200	0.061
		8x15	1600	0.059	10x16	1650	0.053			
220										
270		10x12.5	1700	0.053				10x20	1570	0.045
								12.5x16	1570	0.058
330		8x20	1970	0.040	10x20	2060	0.038	10x25	1990	0.037
					12.5x16	2160	0.045			
390		10x16	2000	0.038	10x25	2420	0.032	12.5x20	1990	0.033
470		10x20	2500	0.028	12.5x20	2300	0.032	12.5x25	2450	0.043
560		12.5x16	2400	0.035				12.5x25	2460	0.026
		10x20	2520	0.027				16x20	2150	0.035
680		10x25	2910	0.026	12.5x25	2800	0.025	12.5x30	2760	0.024
								16x20	2380	0.027
820		12.5x20	2610	0.025	12.5x30	3370	0.023	12.5x35	3040	0.022
					16x20	3070	0.026	18x20	2530	0.026
					12.5x35	3810	0.021	16x25	2890	0.024
1000					16x25	3010	0.022			
1200		12.5x25	3200	0.019	16x25	3510	0.022	16x31.5	3280	0.02
					18x20	3120	0.025	18x25	2930	0.022
1500		12.5x30	3660	0.018	16x31.5	4030	0.019	16x35.5	3440	0.018
		16x20	3330	0.021	18x25	3530	0.021	18x31.5	3380	0.018
		12.5x35	4120	0.016	16x35.5	4220	0.016	16x40	3690	0.016
1800		16x25	3810	0.170				18x35.5	3550	0.017
		18x20	3450	0.020						
2200					16x40	4500	0.014	18x40	3930	0.015
					18x31.5	4080	0.016			
2700		16x31.5	4100	0.016	18x35.5	4270	0.013			
		18x25	3880	0.016						
3300		16x35.5	4280	0.014	18x40	4850	0.012			
		18x31.5	4190	0.014						
3900		16x40	4580	0.013						
		18x35.5	4380	0.012						
4700		18x40	4960	0.011						

HX series

STANDARD RATINGS

DxL(mm), R.C : (mA rms) at 105°C 100kHz , IMP:(Ω max) at 20°C,100kHz.

Cap (μF)	V Item	80			100		
		D x L	R.C.	IMP	D x L	R.C.	IMP
8.2					5x11	235	0.720
12		5x11	235	0.072			
18					6.3x11	390	0.340
27		6.3x11	390	0.340	8x11.5	450	0.430
33					8x11.5	650	0.200
39							
47		8x11.5	650	0.200	8x15	820	0.140
56					8x20	1090	0.120
		8x15	780	0.250	10x12.5	860	0.140
68		8x15	820	0.140	8x20	1090	0.012
		10x12.5	780	0.300	10x16	1050	0.090
82		8x20	1090	0.120	10x16	1150	0.090
		10x12.5	860	0.140			
100		10x12.5	860	0.140	10x20	1570	0.068
		10x16	1050	0.100	12.5x16	1400	0.090
120		10x16	1150	0.090	10x20	1570	0.068
					12.5x16	1430	0.090
150		10x16	1150	0.090	10x25	1780	0.055
		10x20	1570	0.068	12.5x20	1800	0.048
180		12.5x16	1430	0.090			
		10x20	1570	0.068	12.5x25	2210	0.038
220		10x25	1780	0.055			
		12.5x16	1430	0.090			
270		10x25	1780	0.055	12.5x30	2520	0.033
		12.5x20	1800	0.048	16x20	2150	0.036
330		12.5x20	1800	0.048	16x20	2150	0.036
		12.5x25	1950	0.038			
		12.5x25	2210	0.038	12.5x35	2860	0.026
390					16x25	2620	0.028
					18x20	2280	0.032
		12.5x30	2520	0.033	16x31.5	2650	0.038
470		16x20	2150	0.036	12.5x40	3150	0.026
					16x31.5	2900	0.022
560		12.5x35	2860	0.026	16x31.5	2900	0.022
					16x35.5	3150	0.020
					18x25	2750	0.027
680		12.5x40	3150	0.026	16x35.5	3150	0.020
		16x25	2620	0.028	16x40	3710	0.018
		18x20	2280	0.032	18x31.5	3150	0.020
820		16x31.5	2900	0.022	16x40	3710	0.018
		18x25	2750	0.027	18x35.5	3710	0.018
		18x25	2750	0.027	18x40	4060	0.017
1000		16x315.5	3150	0.02			
1200		16x40	3710	0.018			
		18x31.5	3150	0.02			
1500		18x35.5	3710	0.018			
1800		18x40	4060	0.017			
2200							
2700							
3300							
3900							
4700							