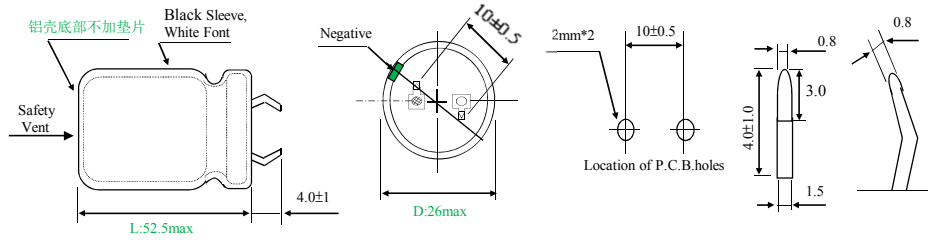


DONG GUAN KUAN KUN ELECTRONIC CO., LTD
 YIN HE INDUSTRIAL ZONE, QING XI TOWN, TEL: 86-769- 87318000
 DONG GUAN CITY, GUAN DONG CHINA (P.R.O.C) FAX: 86-769- 87318008
FOR APPROVAL

DIMENSIONS(mm)



Customer : Ozdisan		Electrolytic Capacitors HZ Series										
Electric Characteristics:												
Ozdisan	Su'scon	Cap. (uF)	Cap. Tol. (%)	Rate Volt. (V-DC)	Surge Volt. (V-DC)	Oper. Temp. (°C)	Nominal Case Size D*L(mm)	Leakage Current Max(uA)	D.F. Max (%)	Max.Ripple Current (A)	ESR 120 Hz at 25°C(Ω)Max	Load Life (Hours)
P/N	P/N											
	HZ450M461Z500E99YS0A	460	±20	450	500	105	25.4*50	1364	20	1.45	0.433	3000

REMARKS:

- Leakage Current Test:** at 20°C for 5 minutes .
- Operating temperature:** 450V -40°C~ + 105°C.
- Dissipation Factor Test:** at 20°C, 120Hz.
- Capacitance Test:** at 20°C, 120Hz.
- Ripple Current Test:** at 105°C, 120Hz .
- Load Life:** 3000 hours,subjected to DC voltage with the rated ripple current is applied at 105°C.

Capacitance Change: Within ±20% of initial value;
tanδ: 200% or less of initial specified value;
Leakage Current: Initial specified value or less;

- Shelf Life:** The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1000 hours 105°C without voltage applide. Before the measurement, the capacitor shall be preconditioned by applying voltage according to them 4.1 of JIS C5101-4.

Capacitance Change : Within ±15% of initial value;
tanδ: 200% or less of initial specified value;
Leakage Current: Initial specified value or less.

- when have characteristic requested :** Load life & shelf life test and etc. , judgment standard reference to our catalogue.

●SPECIFICATION

Leakage Current 洩漏電流	I ≤ 3√CV(uA), which is greater. (After 5 minutes application of working voltage)											
Dissipation Factor 散逸因素 (損失角) (tan δ)	Measurement Frequency:120Hz. Temperature: 20°C											
	Rate Voltage(V)	16	25	35	50	63	80	100	160	200~250	350~500	
	tan δ (MAX)	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.15	0.15	0.20	
When nominal capacitance over 1000μF, tanδ shall be added 0.01 to the listed value with increase of every 1000μF .												
Standards 參照標準	JIS C-5101-4(IEC 60384)											

●RIPPLE CURRENT COEFFICIENTS

Frequency coefficient of allowable ripple current					
Rated Voltage(V)	Frequency(Hz)				
	50	120	1k	10k	100k
16~100	0.88	1.00	1.05	1.10	1.15
160~250	0.85	1.00	1.20	1.30	1.50
350~500	0.88	1.00	1.20	1.25	1.40

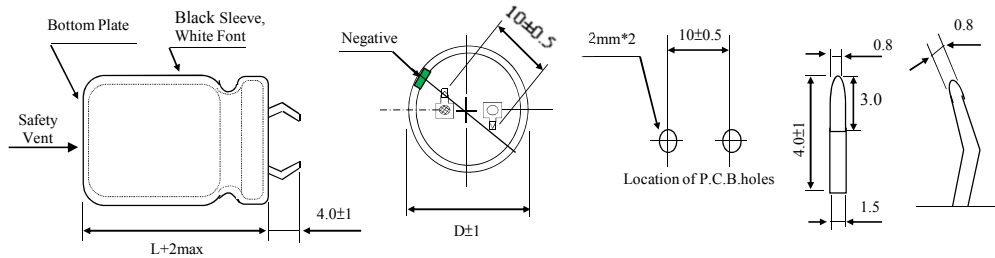
The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise.
 When long life performance is required in actual use, the rms ripple current has to be reduced.
 Production date:2023.04.17

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DIMENSIONS(mm)

FOR APPROVAL



Customer : Ozdisan		Electrolytic Capacitors HZ Series									
Electric Characteristics:											
Ozdisan P/N	Su'scon P/N	Cap. (uF)	Cap. Tol. (%)	Rate Volt. (V-DC)	Surge Volt. (V-DC)	Oper. Temp. (°C)	Nominal Case Size D*L(mm)	Leakage Current Max(uA)	D.F. Max (%)	Max.Ripple Current (A)	Load Life (Hours)
	HZ450M461Z50CE99YS0A	460	±20	450	500	105	25.4*50	1364	20	1.58	3000
	HZ500M820M350E99YS0A	82	±20	500	550	105	22*35	607	20	0.72	3000

REMARKS:

1. Leakage Current Test: at 20°C for 5 minutes .
2. Operating temperature: 450V&500V -40°C~ + 105°C.
3. Dissipation Factor Test: at 20°C, 120Hz.
4. Capacitance Test: at 20°C, 120Hz.
5. Ripple Current Test: at 105°C, 120Hz .
6. Load Life: 3000 hours,subjected to DC voltage with the rated ripple current is applied at 105°C.
- Capacitance Change: Within ±20% of initial value;
- tanδ: 200% or less of initial specified value;
- Leakage Current: Initial specified value or less;
7. Shelf Life: The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1000 hours 105°C without voltage applide. Before the measurement, the capacitor shall be preconditioned by applying voltage according to them 4.1 of JIS C5101-4.
- Capacitance Change : Within ±15% of initial value;
- tanδ: 200% or less of initial specified value;
- Leakage Current: Initial specified value or less.
8. when have characteristic requested : Load life & shelf life test and etc. , judgment standard reference to our catalogue.

●SPECIFICATION

Leakage Current 洩漏電流	$I \leq 3\sqrt{CV}(\mu A)$, which is greater. (After 5 minutes application of working voltage)										
Dissipation Factor 散逸因素 (損失角) (tan δ)	Measurement Frequency:120Hz. Temperature: 20°C										
	Rate Voltage(V)	16	25	35	50	63	80	100	160	200~250	350~500
	tan δ (MAX)	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.15	0.15	0.20
When nominal capacitance over 1000μF, tanδ shall be added 0.01 to the listed value with increase of every 1000μF .											
Standards 參照標準	JIS C-5101-4(IEC 60384)										

●RIPPLE CURRENT COEFFICIENTS

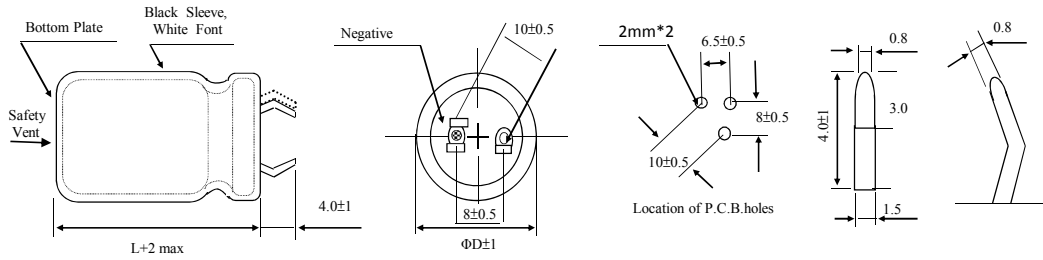
Frequency coefficient of allowable ripple current					
	Frequency(Hz)				
Rated Voltage(V)	50	120	1k	10k	100k
16~100	0.88	1.00	1.05	1.10	1.15
160~250	0.85	1.00	1.20	1.30	1.50
350~500	0.88	1.00	1.20	1.25	1.40

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.
Production date:2023.04.17

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DIMENSIONS(mm)

FOR APPROVAL



Customer : Ozdisan		Electrolytic Capacitors HZ Series										
Electric Characteristics:												
Ozdisan	Su'scon	Cap.	Cap.	Rate	Surge	Oper.	Nominal	Leakage	D.F.	Max.Ripple	ESR	Load
P/N	P/N	(uF)	Tol.	Volt.	Volt.	Temp.	Case Size	Current	Max	Current	120 Hz	Life
			(%)	(V-DC)	(V-DC)	(°C)	D*L(mm)	Max(uA)	(%)	(A)	at 25°C (Ω)Max	(Hours)
	HZ450M471P400E99TS0A	470	±20	450	500	105	35*40	1379	20	1.95	0.339	3000

REMARKS:

- Leakage Current Test:** at 20°C for 5 minutes .
- Operating temperature:** 450V -40°C~ + 105°C.
- Dissipation Factor Test:** at 20°C, 120Hz.
- Capacitance Test:** at 20°C, 120Hz.
- Ripple Current Test:** at 105°C, 120Hz .
- Load Life:** 3000 hours,subjected to DC voltage with the rated ripple current is applied at 105°C.

Capacitance Change: Within ±20% of initial value;
tanδ: 200% or less of initial specified value;
Leakage Current: Initial specified value or less;

- Shelf Life:** The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1000 hours 105°C without voltage applide. Before the measurement, the capacitor shall be preconditioned by applying voltage according to them 4.1 of JIS C5101-4.

Capacitance Change : Within ±15% of initial value;
tanδ: 200% or less of initial specified value;
Leakage Current: Initial specified value or less.

- when have characteristic requested :** Load life & shelf life test and etc. , judgment standard reference to our catalogue.

●SPECIFICATION

Leakage Current 洩漏電流	$I \leq 3\sqrt{CV}(\mu A)$, which is greater. (After 5 minutes application of working voltage)											
Dissipation Factor 散逸因素 (損失角) (tan δ)	Measurement Frequency:120Hz. Temperature: 20°C											
	Rate Voltage(V)	16	25	35	50	63	80	100	160	200~250	350~500	
	tan δ (MAX)	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.15	0.15	0.20	
When nominal capacitance over 1000μF, tanδ shall be added 0.01 to the listed value with increase of every 1000μF .												
Standards 參照標準	JIS C-5101-4(IEC 60384)											

●RIPPLE CURRENT COEFFICIENTS

Frequency coefficient of allowable ripple current					
Rated Voltage(V)	Frequency(Hz)				
	50	120	1k	10k	100k
16~100	0.88	1.00	1.05	1.10	1.15
160~250	0.85	1.00	1.20	1.30	1.50
350~500	0.88	1.00	1.20	1.25	1.40

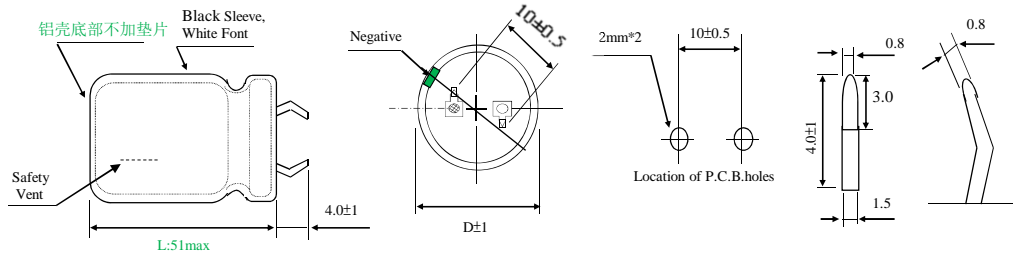
The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.

Production date:2023.04.17

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DIMENSIONS(mm)

FOR APPROVAL



Customer : Ozdisan		Electrolytic Capacitors HZ Series										
Electric Characteristics:												
Ozdisan	Su'scon	Cap. (uF)	Cap. Tol. (%)	Rate Volt. (V-DC)	Surge Volt. (V-DC)	Oper. Temp. (°C)	Nominal Case Size D*L(mm)	Leakage Current Max(uA)	D.F. Max (%)	Max.Ripple Current (A)	ESR 100KHz at 25°C (Ω)Max	Load Life (Hours)
P/N	P/N											
	HZ450M561O500E99YS0A	560	±20	450	500	105	30*50	1505	20	2.10	0.474	3000

REMARKS:

- Leakage Current Test:** at 20°C for 5 minutes .
- Operating temperature:** 450V -40°C~ + 105°C.
- Dissipation Factor Test:** at 20°C, 120Hz.
- Capacitance Test:** at 20°C, 120Hz.
- Ripple Current Test:** at 105°C, 120Hz .
- Load Life:** 3000 hours,subjected to DC voltage with the rated ripple current is applied at 105°C.

Capacitance Change: Within ±20% of initial value;
tanδ: 200% or less of initial specified value;
Leakage Current: Initial specified value or less;

- Shelf Life:** The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1000 hours 105°C without voltage applide. Before the measurement, the capacitor shall be preconditioned by applying voltage according to them 4.1 of JIS C5101-4.

Capacitance Change : Within ±15% of initial value;
tanδ: 200% or less of initial specified value;
Leakage Current: Initial specified value or less.

- when have characteristic requested :** Load life & shelf life test and etc. , judgment standard reference to our catalogue.

●SPECIFICATION

Leakage Current 洩漏電流	I ≤ 3√CV(uA), which is greater. (After 5 minutes application of working voltage)											
Dissipation Factor 散逸因素 (損失角) (tan δ)	Measurement Frequency:120Hz. Temperature: 20°C											
	Rate Voltage(V)	16	25	35	50	63	80	100	160	200~250	350~500	
	tan δ (MAX)	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.15	0.15	0.20	
When nominal capacitance over 1000µF, tanδ shall be added 0.01 to the listed value with increase of every 1000µF .												
Standards 參照標準	JIS C-5101-4(IEC 60384)											

●RIPPLE CURRENT COEFFICIENTS

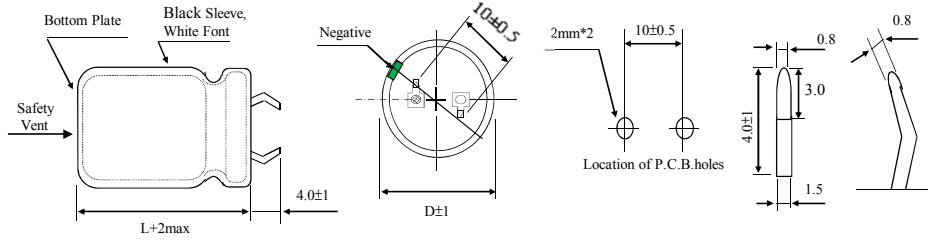
Frequency coefficient of allowable ripple current					
Rated Voltage(V)	Frequency(Hz)				
	50	120	1k	10k	100k
16~100	0.88	1.00	1.05	1.10	1.15
160~250	0.85	1.00	1.20	1.30	1.50
350~500	0.88	1.00	1.20	1.25	1.40

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise.
 When long life performance is required in actual use, the rms ripple current has to be reduced.
 Production date:2023.04.17

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DIMENSIONS(mm)

FOR APPROVAL



Customer : Ozdisan		Electrolytic Capacitors HZ Series										
Electric Characteristics:												
Ozdisan	Su'scon	Cap.	Cap.	Rate	Surge	Oper.	Nominal	Leakage	D.F.	Max.Ripple	ESR	Load
P/N	P/N	(uF)	Tol.	Volt.	Volt.	Temp.	Case Size	Current	Max	Current	100KHz	Life
		(%)	(%)	(V-DC)	(V-DC)	(°C)	D*L(mm)	Max(uA)	(%)	(A)	at 25°C(Ω)Max	(Hours)
	HZ450M561O50CE99YS0A	560	±20	450	500	105	30*50	1505	20	2.39	0.355	3000

REMARKS:

- Leakage Current Test:** at 20°C for 5 minutes .
- Operating temperature:** 450V -40°C~ + 105°C.
- Dissipation Factor Test:** at 20°C, 120Hz.
- Capacitance Test:** at 20°C, 120Hz.
- Ripple Current Test:** at 105°C, 120Hz .
- Load Life:** 3000 hours,subjected to DC voltage with the rated ripple current is applied at 105°C.

Capacitance Change: Within ±20% of initial value;
tanδ: 200% or less of initial specified value;
Leakage Current: Initial specified value or less;

- Shelf Life:** The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1000 hours 105°C without voltage applide. Before the measurement, the capacitor shall be preconditioned by applying voltage according to them 4.1 of JIS C5101-4.

Capacitance Change : Within ±15% of initial value;
tanδ: 200% or less of initial specified value;
Leakage Current: Initial specified value or less.

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●SPECIFICATION

Leakage Current 洩漏電流	I ≤ 3√CV(uA), which is greater. (After 5 minutes application of working voltage)											
Dissipation Factor 散逸因素 (損失角) (tan δ)	Measurement Frequency:120Hz. Temperature: 20°C											
	Rate Voltage(V)	16	25	35	50	63	80	100	160	200~250	350~500	
	tan δ (MAX)	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.15	0.15	0.20	
When nominal capacitance over 1000μF, tanδ shall be added 0.01 to the listed value with increase of every 1000μF .												
Standards 參照標準	JIS C-5101-4(IEC 60384)											

●RIPPLE CURRENT COEFFICIENTS

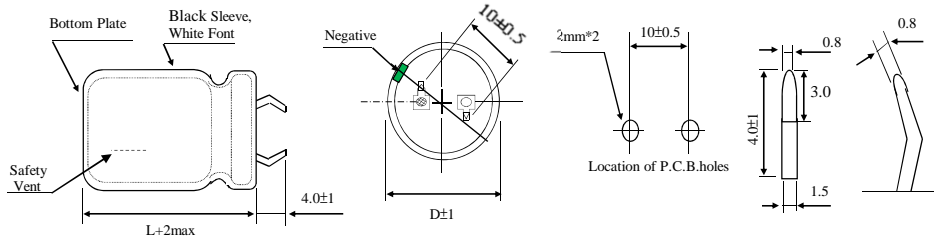
Frequency coefficient of allowable ripple current				
Rated Voltage(V)	Frequency(Hz)			
	50	120	1k	100k
16~100	0.88	1.00	1.05	1.10
160~250	0.85	1.00	1.20	1.30
350~500	0.88	1.00	1.20	1.40

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise.
 When long life performance is required in actual use, the rms ripple current has to be reduced.

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DIMENSIONS(mm)



Customer : Ozdisan		Electrolytic Capacitors HZ Series										
Electric Characteristics:												
Ozdisan	Su'scon	Cap.	Cap.	Rate	Surge	Oper.	Nominal	Leakage	D.F.	Max.Ripple	ESR	Load
P/N	P/N	(uF)	Tol.	Volt.	Volt.	Temp.	Case Size	Current	Max	Current	120 Hz	Life
			(%)	(V-DC)	(V-DC)	(°C)	D*L(mm)	Max(uA)	(%)	(A)	at 25°C (Ω)Max	(Hours)
	HZ450M681P450E99YS0A	680	±20	450	500	105	35*45	1659	20	2.70	0.350	3000

REMARKS:

1. Leakage Current Test: at 20°C for 5 minutes .

2. Operating temperature: 450V -40°C~ + 105°C.

3. Dissipation Factor Test: at 20°C, 120Hz.

4. Capacitance Test: at 20°C, 120Hz.

5. Ripple Current Test: at 105°C, 120Hz .

6. Load Life: 3000 hours,subjected to DC voltage with the rated ripple current is applied at 105°C.

Capacitance Change: Within ±20% of initial value;

tanδ: 200% or less of initial specified value;

Leakage Current: Initial specified value or less;

7. Shelf Life: The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1000 hours 105°C without voltage applide. Before the measurement, the capacitor shall be preconditioned by applying voltage according to them 4.1 of JIS C5101-4.

Capacitance Change : Within ±15% of initial value;

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Leakage Current: Initial specified value or less.

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●SPECIFICATION

Leakage Current 洩漏電流	I ≤ 3√CV(uA), which is greater. (After 5 minutes application of working voltage)											
Dissipation Factor 散逸因素 (損失角) (tan δ)	Measurement Frequency:120Hz. Temperature: 20°C											
	Rate Voltage(V)	16	25	35	50	63	80	100	160	200~250	350~500	
	tan δ (MAX)	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.15	0.15	0.20	
When nominal capacitance over 1000μF, tanδ shall be added 0.01 to the listed value with increase of every 1000μF .												
Standards 參照標準	JIS C-5101-4(IEC 60384)											

●RIPPLE CURRENT COEFFICIENTS

Frequency coefficient of allowable ripple current				
Rated Voltage(V)	Frequency(Hz)			
	50	120	1k	10k
16~100	0.88	1.00	1.05	1.10
160~250	0.85	1.00	1.20	1.30
350~500	0.88	1.00	1.20	1.25

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