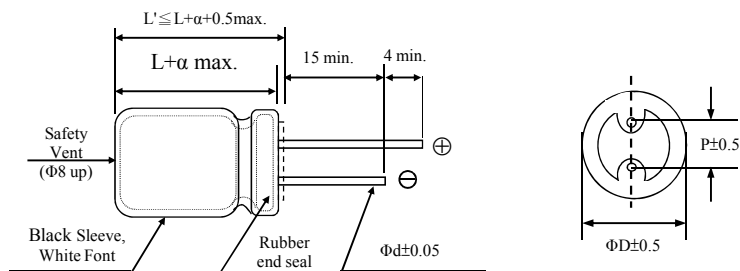


FOR APPROVAL

DIMENSIONS(mm)

ΦD	12.5
L	20
α	2.0
P	5.0
Φd	0.6



Customer: Ozdisan	Electrolytic Capacitors HH Series	Su'scon Code
-----------------------------	---	------------------------

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 (%)	R.C 120Hz (mA rms)	Load Life (hours)
	HH200M820X20TKKKS00A	82	±20	200	250	105	12.5*20	756	20	550	10000
	HH250M330X20TKKKS00A	33	±20	250	300	105	12.5*20	430	20	280	10000

REMARKS:

- Leakage Current Test:** 160V ~450V at 20°C for 1 minutes ;
- Operating temperature:** 160V~400V -40°C~ +105°C ;450V~500V-25°C~ +105°C ;
- Dissipation Factor Test:** at 20°C, 120 Hz.
- Capacitance Test:** at 20°C, 120 Hz.
- Ripple Current Test :** at 105°C, 120 Hz;
- Load Life:** 12000 hours, subjected to DC voltage with the rated ripple current is applied at 105°C.
(L ≤ 20mm, 10000 hours)

Capacitance Change: Within ±20% of initial value;
tanδ: 200% or less of initial specified value;
 According to the specified value which stated in the catalogue to do the life testing;

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 ±20% 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	$I \leq 0.04CV + 100(uA)$, After 1 minutes application of DC working voltage, at 20°C								
Dissipation Factor 散逸因素 (損失角) (tan δ)	Measurement Frequency:120Hz. Temperature:20°C								
	Rate Voltage(V)	160	200	250	350	400	450	500	
	tanδ (MAX)	0.20	0.20	0.20	0.24	0.24	0.24	0.24	
Standards 參照標準	JIS C-5101-4(IEC 60384)								

●RIPPLE CURRENT COEFFICIENTS				
Frequency coefficient of allowable ripple current				
Capacitance (uF)	Frequency (Hz)			
	120	1K	10K	100k
6.8~82	1.00	1.75	2.25	2.50
100~680	1.00	1.67	2.05	2.25

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.

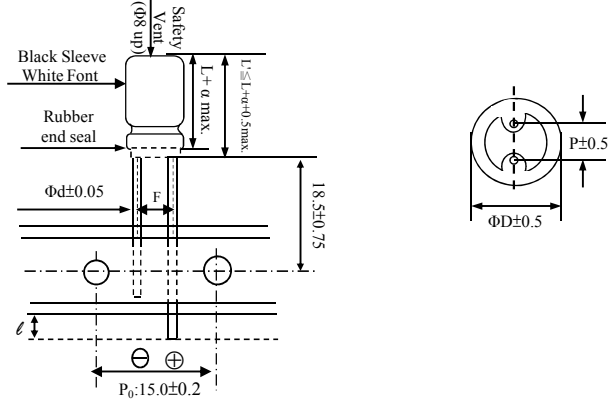
When long life performance is required in actual use, the rms ripple current has to be reduced.

Production date:2023.04.17

FOR APPROVAL

DIMENSIONS(mm)

ΦD	16
L	25
α	2.0
P	7.5
F ^{+0.8} _{-0.2}	7.5
ℓ	1.0
Φd	0.8



Customer: Ozdisan	Electrolytic Capacitors HH Series	Su'scon Code
-----------------------------	---	------------------------

Electric Characteristics:											
Ozdisan	Su'scon	Cap.	Cap.	Rate	Surge	Oper.	Nominal	Leakage	D.F.	R.C	Load
P/N	P/N	(uF)	Tol.	Volt.	Volt.	Temp.	Case Size	Current	MAX	120Hz	Life
	HH250M151J25TKKKP75A	150	±20	250	300	105	16*25	1600	20	840	12000

REMARKS:

- Leakage Current Test:** 160V~450V at 20°C for 1 minutes ;
- Operating temperature:** 160V~400V -40°C~ +105°C ;450V~500V-25°C~ +105°C ;
- Dissipation Factor Test:** at 20°C, 120 Hz.
- Capacitance Test:** at 20°C, 120 Hz.
- Ripple Current Test :** at 105°C, 120 Hz;
- Load Life:** 12000 hours, subjected to DC voltage with the rated ripple current is applied at 105°C. (L ≤ 20mm, 10000 hours)

Capacitance Change: Within ±20% of initial value;

tanδ: 200% or less of initial specified value;
According to the specified value which stated in the catalogue to do the life testing;

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 ±20% 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	$I \leq 0.04CV + 100(\mu A)$, After 1 minutes application of DC working voltage, at 20°C															
Dissipation Factor 散逸因素 (損失角) (tan δ)	Measurement Frequency: 120Hz. Temperature: 20°C															
	<table border="1" style="width: 100%; text-align: center;"> <tr> <th>Rate Voltage(V)</th> <td>160</td> <td>200</td> <td>250</td> <td>350</td> <td>400</td> <td>450</td> <td>500</td> </tr> <tr> <th>tanδ (MAX)</th> <td>0.20</td> <td>0.20</td> <td>0.20</td> <td>0.24</td> <td>0.24</td> <td>0.24</td> <td>0.24</td> </tr> </table>	Rate Voltage(V)	160	200	250	350	400	450	500	tanδ (MAX)	0.20	0.20	0.20	0.24	0.24	0.24
Rate Voltage(V)	160	200	250	350	400	450	500									
tanδ (MAX)	0.20	0.20	0.20	0.24	0.24	0.24	0.24									
Standards 參照標準	JIS C-5101-4(IEC 60384)															

● **RIPPLE CURRENT COEFFICIENTS**

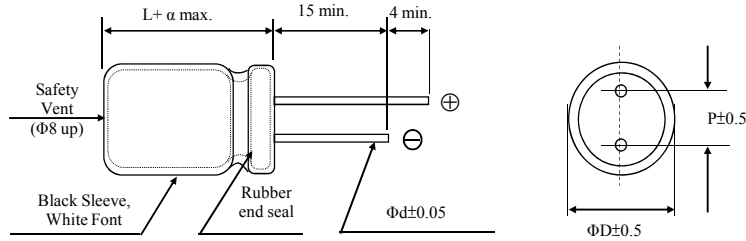
Frequency coefficient of allowable ripple current				
Capacitance (uF)	Frequency (Hz)			
	120	1K	10K	100k
6.8~82	1.00	1.75	2.25	2.50
100~680	1.00	1.67	2.05	2.25

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

FOR APPROVAL

DIMENSIONS(mm)

ΦD	10
L	16
α	2.0
P	5.0
Φd	0.6



Customer: Ozdisan	Electrolytic Capacitors HH Series	Su'scon Code
-----------------------------	---	------------------------

Electric Characteristics:											
Ozdisan	Su'scon	Cap.	Cap.	Rate	Surge	Oper.	Nominal	Leakage	D.F.	R.C	Load
P/N	P/N	(uF)	Tol.	Volt.	Volt.	Temp.	Case Size	Current	MAX	120Hz	Life
			(%)	(V-DC)	(V-DC)	(°C)	D*L(mm)	Max (uA)	(%)	(mA rms)	(hours)
	HH400M100G16PKKKS00A	10	±20	400	450	105	10*16	260	24	140	10000

REMARKS:

- Leakage Current Test:** 160V~450V at 20°C for 1 minutes ;
 - Operating temperature:** 160V~400V -40°C~ +105°C ;450V~500V-25°C~ +105°C ;
 - Dissipation Factor Test:** at 20°C, 120 Hz.
 - Capacitance Test:** at 20°C, 120 Hz.
 - Ripple Current Test :** at 105°C, 120 Hz;
 - Load Life:** 12000 hours, subjected to DC voltage with the rated ripple current is applied at 105°C. (L≤20mm, 10000 hours)
- Capacitance Change:** Within±20% of initial value;
tanδ: 200% or less of initial specified value;
 According to the specified value which stated in the catalogue to do the life testing;
- 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±20% 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 ≤ 0.04CV + 100(uA), After 1 minutes application of DC working voltage, at 20°C										
Dissipation Factor 散逸因素 (損失角) (tan δ)	Measurement Frequency:120Hz. Temperature:20°C										
	Rate Voltage(V)	160	200	250	350	400	450	500			
	tanδ (MAX)	0.20	0.20	0.20	0.24	0.24	0.24	0.24			
Standards 參照標準	JIS C-5101-4(IEC 60384)										

●RIPPLE CURRENT COEFFICIENTS

Frequency coefficient of allowable ripple current				
Capacitance (uF)	Frequency (Hz)			
	120	1K	10K	100k
6.8~82	1.00	1.75	2.25	2.50
100~680	1.00	1.67	2.05	2.25

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.

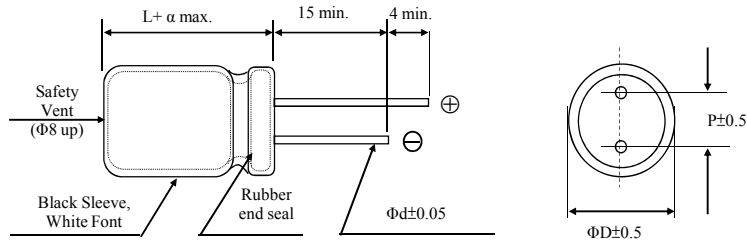
When long life performance is required in actual use, the rms ripple current has to be reduced.

Production date:2023.04.17

FOR APPROVAL

DIMENSIONS(mm)

ΦD	10	10
L	16	20
α	2.0	2.0
P	5.0	5.0
Φd	0.6	0.6



Customer: Ozdisan	Electrolytic Capacitors HH Series	Su'scon
		Code

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 (%)	R.C 120Hz (mA rms)	Load Life (hours)
	HH450M4R7G16PE99S00A	4.7	±20	450	500	105	10*16	184	24	75	10000
	HH450M150G20PE99S00A	15	±20	450	500	105	10*20	370	24	145	10000

REMARKS:

- Leakage Current Test:** 160V ~450V at 20°C for 1 minutes ;
- Operating temperature:** 450V -40°C ~ +105°C
- Dissipation Factor Test:** at 20°C, 120 Hz.
- Capacitance Test:** at 20°C, 120 Hz.
- Ripple Current Test :** at 105°C, 120 Hz;
- Load Life:** 12000 hours, subjected to DC voltage with the rated ripple current is applied at 105°C.
(L ≤ 20mm, 10000 hours)

Capacitance Change: Within ±20% of initial value;
tanδ: 200% or less of initial specified value;
 According to the specified value which stated in the catalogue to do the life testing;

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 ±20% 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 ≤ 0.04CV + 100(uA), After 1 minutes application of DC working voltage, at 20°C								
Dissipation Factor 散逸因素 (損失角) (tan δ)	Measurement Frequency: 120Hz. Temperature: 20°C								
	Rate Voltage(V)	160	200	250	350	400	450	500	
	tanδ (MAX)	0.20	0.20	0.20	0.24	0.24	0.24	0.24	
Standards 參照標準	JIS C-5101-4(IEC 60384)								

●RIPPLE CURRENT COEFFICIENTS				
Frequency coefficient of allowable ripple current				
Capacitance (uF)	Frequency (Hz)			
	120	1K	10K	100k
6.8~82	1.00	1.75	2.25	2.50
100~680	1.00	1.67	2.05	2.25

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