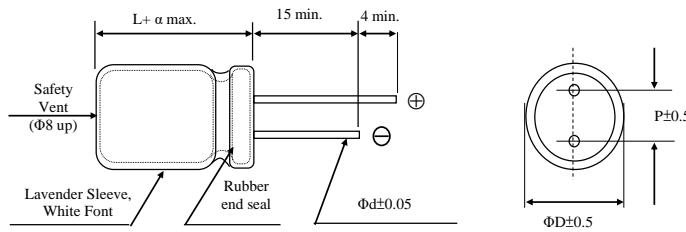


DONG GUAN KUAN KUN ELECTRONIC CO., LTD
 YIN HE INDUSTRIAL ZONE, QING XI TOWN, TEL: +86-769- 87318000
 DONG GUAN CITY, GUAN DONG CHINA (P.R.O.C) FAX: +86-769- 87318008

FOR APPROVAL

DIMENSIONS(mm)

ΦD	18
L	20
α	1.5
P	7.5
Φd	0.8



Customer:	Electrolytic Capacitors										Su'scon	
	HX Series										Code	

Electric Characteristics:

Ozdisan	Su'scon	Cap.	Cap.	Rate	Surge	Oper.	Nominal	Leakage	D.F.	R.C	I.M.P	Load
P/N	P/N	(uF)	Tol.	Volt.	Volt.	Temp.	Case Size	Current	MAX	100KHz	100KHz	Life
	HX025M332K20PE99S00A	3300	±20	25	32	105	18*20	825	18	2850	0.030	10000

REMARKS:

1. Leakage Current Test: 6.3V ~100V at 20°C for 2 minutes ;
2. Operating temperature: 6.3V~100V -40°C ~ +105°C ;
3. Dissipation Factor Test: at 20°C, 120 Hz.
4. Capacitance Test: at 20°C, 120 Hz.
5. Ripple Current Test : at 105°C, 100K Hz ;
6. Load Life: subjected to DC voltage with the rated ripple current is applied at 105 °C.

Case size	6.3V	10~50V	63~100V
ΦD5~ΦD6.3	6000H	7000H	6000H
ΦD8x12L	8000H	9000H	8000H
ΦD8x16~20L	9000H	10000H	9000H
ΦD10x13L		9000H	
ΦD10x16L~25L >ΦD10		10000H	

Capacitance Change:

tanδ: 6.3~10V, Within±30% of initial value; 16~100V, Within±25% of initial value;

200% or less of initial specified value;

According to the specified value which stated in the catalogue to do the life testing;

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 applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C5101-4.

Capacitance Change :

tanδ: Within±20% of initial value;

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	$I \leq 0.01CV$ or $3(\mu A)$ (After 2 minutes application of DC working voltage, at 20°C)																												
Dissipation Factor 散逸因素 (損失角正切) (tan δ)	Measurement Frequency: 120Hz. Temperature: 20°C <table border="1"> <tr> <td>Rate Voltage(V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>80</td> <td>100</td> </tr> <tr> <td>tanδ (MAX)</td> <td>0.22</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.09</td> <td>0.08</td> <td>0.08</td> </tr> </table> When nominal capacitance over 1000μF, tanδ shall be added 0.02 to the listed value with increase of every 1000μF .									Rate Voltage(V)	6.3	10	16	25	35	50	63	80	100	tanδ (MAX)	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08	0.08
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Standards 參照標準	JIS C-5101-4(IEC 60384)																												

●RIPPLE CURRENT COEFFICIENTS

Capacitance(uF)	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

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.

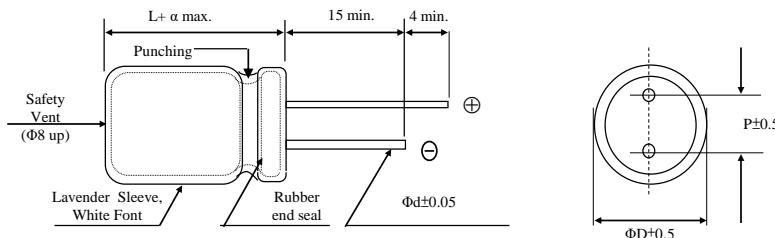
Production date:2023.04.17

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FOR APPROVAL

DIMENSIONS(mm)

ΦD	8
L	12
α	1.0
P	3.5
Φd	0.5



Customer:	Electrolytic Capacitors										Su'scon	
	HX Series										Code	

Electric Characteristics:

Ozdisan	Su'scon	Cap.	Cap.	Rate	Surge	Oper.	Nominal	Leakage	D.F.	R.C	I.M.P	Load
P/N	P/N	(uF)	Tol.	Volt.	Volt.	Temp.	Case Size	Current	MAX	100KHz	100KHz	Life
	HX035M221F12PKKKS00A	220	±20	35	44	105	8*12	77	12	1280	0.070	9000

REMARKS:

- 1. Leakage Current Test: 6.3V ~100V at 20°C for 2 minutes ;
- 2. Operating temperature: 6.3V~100V -40°C ~ +105°C ;
- 3. Dissipation Factor Test: at 20°C, 120 Hz.
- 4. Capacitance Test: at 20°C, 120 Hz.
- 5. Ripple Current Test : at 105°C, 100K Hz ;
- 6. Load Life: subjected to DC voltage with the rated ripple current is applied at 105 °C.

Case size	6.3V	10~50V	63~100V
ΦD5~ΦD6.3	6000H	7000H	6000H
ΦD8x12L	8000H	9000H	8000H
ΦD8x16~20L	9000H	10000H	9000H
ΦD10x13L	9000H		
ΦD10x16L~25L >ΦD10	10000H		

Capacitance Change:

tanδ: 6.3~10V, Within±30% of initial value; 16~100V, Within±25% of initial value;

200% or less of initial specified value;

According to the specified value which stated in the catalogue to do the life testing;

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 applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C5101-4.

Capacitance Change :

Within±20% of initial value;

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	$I \leq 0.01CV$ or $3(uA)$ (After 2 minutes application of DC working voltage, at 20°C)																												
Dissipation Factor 散逸因素 (損失角正切) (tan δ)	Measurement Frequency: 120Hz. Temperature: 20°C <table border="1"> <tr> <td>Rate Voltage(V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>80</td> <td>100</td> </tr> <tr> <td>tanδ (MAX)</td> <td>0.22</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.09</td> <td>0.08</td> <td>0.08</td> </tr> </table> When nominal capacitance over 1000μF, tanδ shall be added 0.02 to the listed value with increase of every 1000μF .									Rate Voltage(V)	6.3	10	16	25	35	50	63	80	100	tanδ (MAX)	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08	0.08
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Standards 參照標準	JIS C-5101-4(IEC 60384)																												

RIPPLE CURRENT COEFFICIENTS

Capacitance(uF)	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

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.

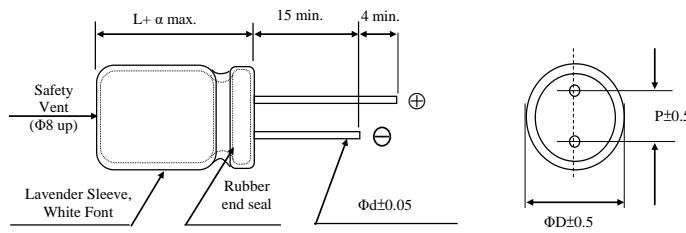
Production date:2023.04.17

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FOR APPROVAL

DIMENSIONS(mm)

ΦD	10
L	20
α	2.0
P	5.0
Φd	0.6



Customer:	Electrolytic Capacitors										Su'scon	
	HX Series										Code	

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 (%)	R.C 100KHz (mA rms)	I.M.P at 25°C (Ω)Max	Load Life (Hours)
P/N	P/N											
	HX035M561G20PKKKS00A	560	±20	35	44	105	10*20	196	12	2520	0.027	10000

REMARKS:

- 1. Leakage Current Test: 6.3V ~100V at 20°C for 2 minutes ;
- 2. Operating temperature: 6.3V~100V -40°C ~ +105°C ;
- 3. Dissipation Factor Test: at 20°C, 120 Hz.
- 4. Capacitance Test: at 20°C, 120 Hz.
- 5. Ripple Current Test : at 105°C, 100K Hz ;
- 6. Load Life: subjected to DC voltage with the rated ripple current is applied at 105 °C.

Case size	6.3V	10~50V	63~100V
ΦD5~ΦD6.3	6000H	7000H	6000H
ΦD8x12L	8000H	9000H	8000H
ΦD8x16~20L	9000H	10000H	9000H
ΦD10x13L		9000H	
ΦD10x16L~25L >ΦD10		10000H	

Capacitance Change:

tanδ: 6.3~10V, Within±30% of initial value; 16~100V, Within±25% of initial value;

200% or less of initial specified value;

According to the specified value which stated in the catalogue to do the life testing;

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 applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C5101-4.

Capacitance Change :

tanδ: Within±20% of initial value;

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	$I \leq 0.01CV$ or $3(uA)$ (After 2 minutes application of DC working voltage, at 20°C)																												
Dissipation Factor 散逸因素 (損失角正切) (tan δ)	Measurement Frequency: 120Hz. Temperature: 20°C <table border="1"> <tr> <td>Rate Voltage(V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>80</td> <td>100</td> </tr> <tr> <td>tanδ (MAX)</td> <td>0.22</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.09</td> <td>0.08</td> <td>0.08</td> </tr> </table> When nominal capacitance over 1000μF, tanδ shall be added 0.02 to the listed value with increase of every 1000μF .									Rate Voltage(V)	6.3	10	16	25	35	50	63	80	100	tanδ (MAX)	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08	0.08
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tanδ (MAX)	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08	0.08																				
Standards 參照標準	JIS C-5101-4(IEC 60384)																												

●RIPPLE CURRENT COEFFICIENTS

Capacitance(uF)	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

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.

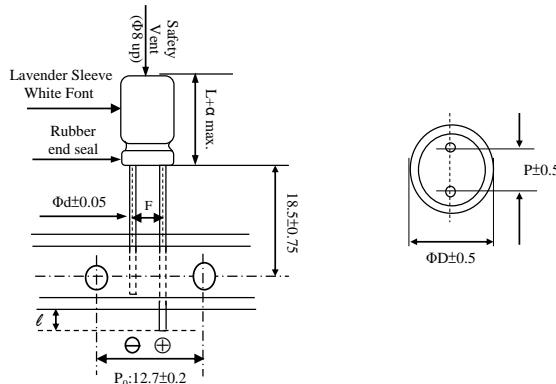
When long life performance is required in actual use, the rms ripple current has to be reduced.

Production date:2023.04.17

FOR APPROVAL

DIMENSIONS(mm)

ΦD	10
L	20
α	2.0
P	5.0
F ^{+0.8} _{-0.2}	5.0
ℓ	1.0
Φd	0.6



Customer:	Ozdisan	Electrolytic Capacitors HX Series										Su'scon	
												Code	
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 (%)	R.C 100KHz (mA rms)	I.M.P 100KHz at 25°C (Ω)Max	Load Life (Hours)	
P/N	P/N	680	±20	35	44	105	10*20	238	12	2550	0.027	10000	
HX035M681G20PKKKP50A													

REMARKS:

1. Leakage Current Test: 6.3V ~100V at 20°C for 2 minutes ;
2. Operating temperature: 6.3V~100V -40°C ~ +105°C ;
3. Dissipation Factor Test: at 20°C, 120 Hz.
4. Capacitance Test: at 20°C, 120 Hz.
5. Ripple Current Test : at 105°C, 100K Hz ;
6. Load Life: subjected to DC voltage with the rated ripple current is applied at 105 °C.

Case size	6.3V	10~50V	63~100V
ΦD5~ΦD6.3	6000H	7000H	6000H
ΦD8x12L	8000H	9000H	8000H
ΦD8x16~20L	9000H	10000H	9000H
ΦD10x13L		9000H	
ΦD10x16L~25L >ΦD10		10000H	

Capacitance Change:

6.3~10V, Within±30% of initial value; 16~100V, Within±25% 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 applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 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≤0.01CV or 3(uA)(After 2 minutes application of DC working voltage,at 20°C)
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Dissipation Factor 散逸因素 (損失角正切) (tan δ)	Measurement Frequency:120Hz. Temperature:20°C									
	Rate 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	0.10	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 .

Standards 參照標準	JIS C-5101-4(IEC 60384)
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●RIPPLE CURRENT COEFFICIENTS

Capacitance(uF)	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

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