

Data Sheet

Customer: _____

Product: Aluminum Electrolytic Capacitors – EKH Series _____

Size : 5x11mm ~ 18x31.5mm _____

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Edition: Ver. 1 _____

Record of change

Date	Ver.	Description	Page
15-Aug-2016	1		

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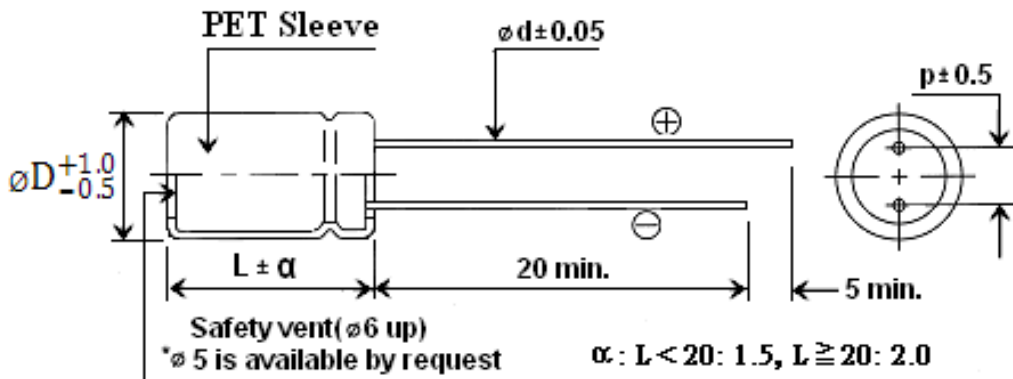
Prepared by	Checked by	Approved by	Accepted by (customer)
15-Aug-2016	15-Aug-2016	15-Aug-2016	
<i>Andy Hsu</i>	<i>Hwa Wu</i>	<i>Hwa Wu</i>	

- Used in electronic ballast, switching power supply, industrial measuring instruments.
- higher ripple current
- Load life 5000~10000 hrs at 105°C
- Safety vent construction design.

Characteristics

Voltage Range	10 to 50 VDC	160 to 450 VDC								
Capacitance Range	6.8 to 3300uF	6.8 to 220uF								
Temperature Range	-40 to +105°C	-40 to +105°C								
Leakage Current	$I \leq 0.01CV$ or 3uA, whichever is greater 1 minutes after Rated Voltage applied	$I \leq 0.04CV + 100uA$ 1 minutes after Rated Voltage applied								
Capacitance Tolerance	$\pm 20\%$ at 120Hz, 20°C (10% Tol. is available upon request)									
Dissipation Factor	Working Voltage (V)	10 16 25 35 50 160 200 250 350 400 450								
	$\tan\delta(\%)$ max	19 16 14 12 10 15 15 15 20 20 20								
Low Temperature Characteristic (120Hz)	Working Voltage (V)	10 16 25 35 50 160 200 250 350 400 450								
	Z-25°C/Z +20°C	4 3 2 2 2 3 3 3 6 6 6								
	Z-40°C/Z +20°C	6 4 3 3 3 6 6 6 6 6 -								
Load life :	Test conditions Duration time : as right Ambient temperature : +105°C Applied voltage : Rated DC working voltage After test requirement at +20°C Capacitance change : $\leq \pm 20\%$ of the initial measured value value Dissipation factor : $\leq 200\%$ of the initial specified value value Leakage current : \leq The initial specified value	<table border="1"> <tr> <th>Dφ</th> <th>Life hours</th> </tr> <tr> <td>< 8φ</td> <td>5,000</td> </tr> <tr> <td>8φ</td> <td>8,000</td> </tr> <tr> <td>≥ 10</td> <td>10,000</td> </tr> </table> For standard size	Dφ	Life hours	< 8φ	5,000	8φ	8,000	≥ 10	10,000
Dφ	Life hours									
< 8φ	5,000									
8φ	8,000									
≥ 10	10,000									
Shelf life (at 105°C)	Test conditions Duration time : 1000Hrs Ambient temperature : +105°C Applied voltage : None After test requirement at +20°C: Same limits as Load life. Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.									

Drawing



Dφ	5	6.3	8	10	13	16	18
p	2.0	2.5	3.5	5.0	5.0	7.5	7.5
dφ	0.5	0.5	0.5	0.6	0.6	0.8	0.8

Ripple Current Coefficients

Frequency(Hz)	120	1K	10K	≥100K
Multiplier	0.50	0.80	0.85	1.0

Multiplier for R.C. vs Temperature

Temp.(°C)	45	60	70	85	95	105
Multiplier.	2.10	1.90	1.65	1.40	1.25	1.00

Dimensions, Maximum Permissible Ripple Current & Impedance

WV Cap(μF)	10		16		25		35		50	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
6.8									5x11	75
10							5x11	65	5x11	97
22					5x11	100	5x11	125	6.3x11	130
33			5x11	115	5x11	130	6.3x11	178	8x11.5	241
47	5x11	100	5x11	145	6.3x11	160	8x11.5	240	8x11.5	287
									10x12.5	300
68	5x11	130	6.3x11	200	8x11.5	230	8x11.5	270	10x12.5	356
100	6.3x11	190	8x11.5	245	8x11.5	327	10x12.5	390	10x16	500
150	6.3x11	220	8x11.5	300	10x12.5	460	10x16	632	10x20	747
220	6.3x11	270	8x11.5	420	10x16	580	10x20	760	13x20	977
			10x12.5	495	8x11.5	440				
330	8x11.5	390	8x16/10x12.5	500	10x20	805	13x20	1035	13x25	1150
470	10x12.5	540	10x16	730	10x20	950	13x25	1100	16x25	1552
1000	10x16	900	13x20	1173	13x25	1552	16x31.5	1932	18x31.5	2093
2200	13x20	1540	16x25	2093	16x31.5	2400				
3300	16x25	1900								

WV Cap(μF)	160		200		250		350		400		450	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
6.8							10x20	270	10x20	270	13x20	240
10	10x16	280	10x20/10x16	310	10x20	320	13x20	350	13x20	350	13x25	430
22	10x20	450	10x20	470	13x20	490	13x25	600	16x25	690	16x25	710
33	13x20	610	13x20	620	13x25	750	16x21	820	18x21	870	18x25	950
47	13x20	680	13x20	910	16x21	930	18x21	1020	18x25	1130	18x31.5	1120
68	13x25	1100	16x25	1190	18x21	1300	18x25	1400	18x31.5	1460		
100	18x21	1310	18x21	1380	18x25	1500						
150	18x25	1780	18x25	1800	18x31.5	1870						
220	18x25	2290	18x31.5	2350								

Ripple Current (mA, rms) at 105°C 100KHz

Part Numbering System

EKH	101	M	25	A	-	T1
SERIES	CAPACITANCE	TOL.	W.V.	PACKAGE	SIZE	LEAD SPACE
	IN 3DIGITS	K= ± 10%	0G= 4V	B= Bulk	Omit if only	Omit if Bulk
	010= 1.0uF	M= ± 20%	0J= 6.3V	C5= Cut 5mm	one size	T1= L/S 2.5mm Taped
	4R7= 4.7 uF		10= 10V	A= Ammo Pack	A=Smaller	TA= Lead forming space
	101= 100uF		25= 25V	R= Tape&Reel	size	5mm Taped
	331=330uF		63= 63V	F5= Lead formed		T35= L/S 3.5mm Taped
				& cut 5mm		T2=L/S 5mm Taped