

## *Data Sheet*

Customer: \_\_\_\_\_

Product: Aluminum Electrolytic Capacitors – ELR Series \_\_\_\_\_

Size : 5x11mm ~ 13x26mm \_\_\_\_\_

Issued Date: 15-Aug.-2016 \_\_\_\_\_

Edition: Ver. 1 \_\_\_\_\_

### Record of change

Date	Ver.	Description	Page
15-Aug-2016	1		

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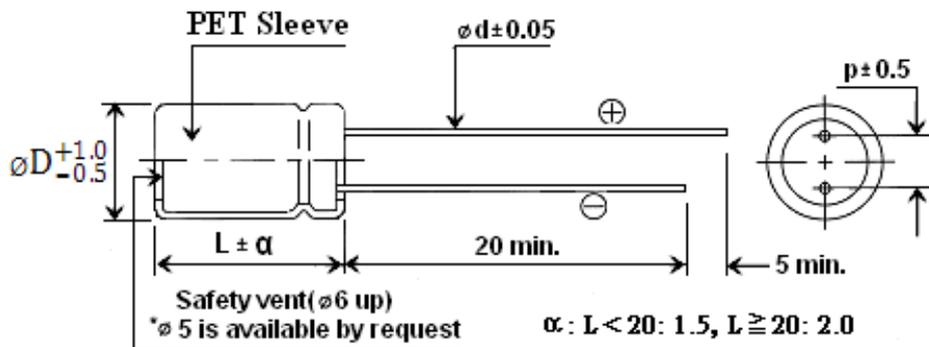
Prepared by	Checked by	Approved by	Accepted by (customer)
15-Aug-2016	15-Aug-2016	15-Aug-2016	
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ELR Series is developed for use where **Low Leakage** current is essential for as coupling of pre-amplifiers, Leakage current remains very low even after prolonged storage.

## Characteristics

<b>Voltage Range</b>	6.3 ~ 63V							
<b>Capacitance Range</b>	0.47 ~ 1000uF							
<b>Temperature Range</b>	-40 ~ + 105°C							
<b>Leakage Current</b>	I = 0.002CV or 0.4uA, whichever is greater (After 3 minutes)							
<b>Capacitance Tolerance</b>	±20% at 120Hz, 20°C ( 10% Tol. is available upon request)							
<b>Dissipation Factor (at 120Hz 20°C)</b>	WV	6.3	10	16	25	35	50	63
	Dissipation Factor( tanδ)max	0.24	0.20	0.17	0.15	0.12	0.1	0.1
<b>Stability at Low Temperature (Impedance ration at 120Hz)</b>	Rated Voltage (V)	6.3	10	16	25	35	50	63
	Z-40°C/Z 20°C	4	3	3	2	2	2	2
	After rated voltage has been applied for 2000 hours at 105°C	Capacitance change	Within ±20% of initial value.					
		Dissipation factor	200% or less of initial specified value					
		Leakage current	Less than initial specified value					
<b>Shelf Life</b>	After storage for 1000 hours at 105°C with no voltage applied, the capacitor shall meet the specified limit in load life. Pre-treatment for measurement shall be conducted after application of DC working voltage for 30 minutes.							

## Diagram of dimensions



Unit: mm

D φ	5	6.3	8	10	13
P	2.0	2.5	3.5	5.0	5.0
d φ	0.5	0.5	0.5	0.6	0.6

## Ripple Current Coefficients

Frequency (Hz)	50(60)	120	400	1K	10K	100K
Cap.(uF) / Hz	Multiplier					
Cap. ≤ 10	0.8	1	1.30	1.45	1.65	1.70
10 < Cap. ≤ 100	0.8	1	1.23	1.36	1.48	1.53
100 < Cap. ≤ 1000	0.8	1	1.16	1.25	1.35	1.38
1000 < Cap.	0.8	1	1.11	1.17	1.25	1.28

## Case Size and Maximum Ripple Current of Standard Products § DxL(mm) (mA, rms, 120HZ at 105°C)

WV Cap. uF	6.3		10		16		25		35		50		63	
	Size	R.C.	Size	R.C.	Size	R.C.	Size	R.C.	Size	R.C.	Size	R.C.	Size	R.C.
0.47-1	All blank voltage on sleeve marking is same as "→" point to								→		5x11	12	5x11	12
2.2									→		5x11	22	5x11	24
3.3									→		5x11	28	5x11	31
4.7	→		5x11	33	5x11	38								
10	→		5x11	42	5x11	46	5x11	51	6.3x11	55				
22	→		5x11	60	5x11	63	5x11	68	6.3x11	75	6.3x11	91		
33	→		5x11	70	5x11	76	6.3x11	83	6.3x11	99	8x12	110		
47	→		5x11	77	5x11	90	6.3x11	116	6.3x11	121	8x12	138	10x13	149
100	5x11	100	5x11	116	6.3x11	138	8x12	149	8x12	187	10x13	198	10x16	248
220	6.3x11	180	6.3x11	193	8x12	237	10x13	253	10x16	330	10x21	380	13x21	440
330	6.3x11	220	8x12	270	8x12	286	10x13	369	10x16	440	13x21	506	13x26	594
470	8x12	280	8x12	319	10x13	407	10x16	484	13x21	572	13x26	671		
1000	10x12	500	10x16	605	10x21	704	13x21	847	13x26	1012				
2200	13x21	665	13x21	860	13x26									

Unit: mm

## Part Numbering System

ELR SERIES	101 CAPACITANCE	M TOL.	25 W.V.	A PACKAGE	- SIZE	T1 LEAD SPACE
	IN 3DIGITS	K= ± 10%	0J= 6.3V	B= Bulk	Omit if only	Omit if Bulk
	010= 1.0uF	M= ± 20%	10= 10V	C5= Cut 5mm	one size	T1= L/S 2.5mm Taped
	4R7= 4.7 uF		25= 25V	A= Ammo Pack	A=Smaller	TA= Lead forming space 5mm Taped
	101= 100uF		63= 63V	R= Tape&Reel	size	T35= L/S 3.5mm Taped
	102= 1000uF			F5= Lead formed & cut 5mm		T2=L/S 5mm Taped