

## *Data Sheet*

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

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

Size : 4x7mm ~ 8x7mm \_\_\_\_\_

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

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

### Record of change

Date	Ver.	Description	Page
15-Aug-2016	1		
05-Oct-2023	2	Add 470uF Item	2

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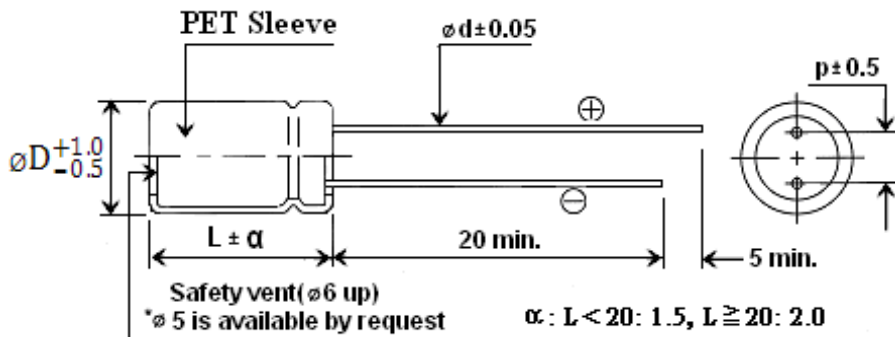
Prepared by	Checked by	Approved by	Accepted by (customer)
15-Aug-2016	15-Aug-2016	15-Aug-2016	
<i>Andy Hsu</i>	<i>Hwa Wu</i>	<i>Hwa Wu</i>	

- Super miniature size.
- Designed for use in VTRs, car radios, Car stereos. Micro-cassette tape recorders, pocket calculators and watches.

**Characteristics**

<b>Voltage Range</b>	4 ~ 63V								
<b>Capacitance Range</b>	0.47 ~ 470uF								
<b>Temperature Range</b>	-40 ~ + 105°C								
<b>Capacitance Tolerance</b>	±20% at 120Hz, 20°C( 10% Tol. is available upon request)								
<b>Leakage Current</b>	I≤0.01CV or 3uA, whichever is greater (After 2 minutes)								
<b>Dissipation Factor</b>	Rated Voltage (V)	4V	6.3V	10V	16V	25V	35V	50V	63V
	Dissipation Factor( tanδ)max	0.35	0.24	0.20	0.16	0.14	0.12	0.10	0.10
(at 20°C, 120Hz)									
<b>Stability at Low Temperature</b>	Impedance ration at 120Hz								
	Rated Voltage (V)	4V	6.3V	10V	16V	25V	35V	50V	63V
	Z-25°C/Z 20°C	7	4	3	2	2	2	2	2
	Z-40°C/Z 20°C	15	8	6	4	4	3	3	3
<b>Load Life</b>	After the rated voltage has been applied for 1000 hours at 105°C	Capacitance change	Within ±20% of initial value						
		D.F. tanδ	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**



D φ	4	5	6.3	8
p	1.5	2.0	2.5	3.5
d φ	0.45			

**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

**Case Size of Standard Products & Maximum Ripple Current ( mA rms 105°C 120Hz)**

Cap. WV	4V		6.3V		10V		16V		25V		35V		50V		63V		
	Size	R.C.	Size	R.C.	Size	R.C.	Size	R.C.	Size	R.C.	Size	R.C.	Size	R.C.	Size	R.C.	
0.47												→	4x7	5	4x7	6.3	
1		ALL BLANK VOLTAGE ON SLEEVE MARKING IS SAME VOLTAGE “→” POINT TO											→	4x7	10	4x7	12
2.2													→	4x7	17	4x7	18
3.3													→	4x7	23	4x7	25
4.7													→	4x7	24	4x7	26
10					→	4x7	28	4x7	30	4x7	31	5x7	35	6.3x7	42		
22					→	4x7	37	5x7	50	5x7	47	6.3x7	59	8x7	65		
33				→	4x7	43	4x7	45	5x7	52	6.3x7	65	8x7	75			
47				→	4x7	50	5x7	65	6.3x7	71	6.3x7	80					
100	5x7	58	5x7	65	5x7	82	6.3x7	92	8x7	113							
220	6.3x7	65	6.3x7	90	6.3x7	120	8x7	145									
330	6.3x7	90	8x7	120	8x7	165											
470		→	8x7	165	8x7	217											

\*Size 8x7 for 1000 hours at 85°C

Unit: mm

**Part Numbering System**

EMR SERIES	101 CAPACITANCE	M TOL.	25 W.V.	A PACKAGE	- SIZE	T1 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 5mm Taped
	101= 100uF		25= 25V	R= Tape&Reel	size	T35= L/S 3.5mm Taped
	331=330uF		63= 63V	F5= Lead formed & cut 5mm		T2=L/S 5mm Taped