

**CODIGO**

RXXXMXX

**DESCRIPCION**

Electroliticos de aluminio

## ECR SERIES

- **Life 1000 hours at 85°C**
- Small size allows wider choice of capacitance and voltage for automatic insertion.

**Characteristics**

Voltage Range	6.3 to 100 VDC				160 to 450 VDC																														
Capacitance Range	0.47 to 10000 $\mu$ F				0.47 to 220 $\mu$ F																														
Temperature Range	- 40 to + 85°C				- 25 to + 85°C																														
Capacitance Tolerance	+ 20 % - 20 % (at 20°C, 120Hz)																																		
Leakage Current	$I \leq 0.01CV$ or $3\mu A$ Whichever is greater 3 minutes after Rated Voltage applied				$I \leq 0.03CV$ or $10\mu A$ Whichever is greater 3 minutes after Rated Voltage applied																														
Dissipation Factor (tan $\delta$ )	<table><tr><td>Rated voltage</td><td>6.3V</td><td>10V</td><td>16V</td><td>25V</td><td>35V</td><td>50V</td><td>63V</td><td>100V</td></tr><tr><td>tan <math>\delta</math>(max)</td><td>0.22</td><td>0.20</td><td>0.17</td><td>0.15</td><td>0.12</td><td>0.10</td><td>0.10</td><td>0.08</td></tr></table>								Rated voltage	6.3V	10V	16V	25V	35V	50V	63V	100V	tan $\delta$ (max)	0.22	0.20	0.17	0.15	0.12	0.10	0.10	0.08									
	Rated voltage	6.3V	10V	16V	25V	35V	50V	63V	100V																										
	tan $\delta$ (max)	0.22	0.20	0.17	0.15	0.12	0.10	0.10	0.08																										
	<table><tr><td>Rated voltage</td><td>160V</td><td>200V</td><td>250V</td><td>350V</td><td>400V</td><td>450V</td></tr><tr><td>tan <math>\delta</math>(max)</td><td>0.16</td><td>0.18</td><td>0.18</td><td>0.20</td><td>0.20</td><td>0.20</td></tr></table>								Rated voltage	160V	200V	250V	350V	400V	450V	tan $\delta$ (max)	0.16	0.18	0.18	0.20	0.20	0.20													
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tan $\delta$ (max)	0.16	0.18	0.18	0.20	0.20	0.20																													
For capacitance > 1000 $\mu$ F, add 0.02 for every 1000 $\mu$ F. (at 20°C, 120Hz)																																			
Stability at Low Temperature	Impedance ratio at 120Hz																																		
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	Rated voltage	6.3V	10V	16V	25V	35V	50V	63V	100V																										
	Z-25°C / Z 20°C	4	3	2	2	2	2	2	2																										
Z-40°C / Z 20°C	8	6	4	4	3	3	3	3																											
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Z-25°C / Z 20°C	2	2	3	5	15	15																													
Load Life	After the rated voltage has been applied for 1000 hours at 85°C				Capacitance change		Within $\pm 20$ % of initial value																												
					D.F. tan $\delta$		150 % or less of initial specified value																												
					Leakage current		Initial specified value or less																												
Shelf Life	After storage for 500 hours at 85°C, with no voltage applied and being stabilized at + 20°C, Capacitor shall meet the limit specified in load life.																																		

**Maximum Ripple Current**

mA rms 85°C 120Hz

$\mu$ F \ VV	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450
0.47						8	8	10	10	10	10	11	12	12
1						10	20	20	13	16	18	18	18	19
2.2						20	30	30	22	27	31	28	28	29
3.3						30	40	40	31	36	40	35	35	35
4.7						40	45	50	40	45	49	40	45	50
10			45	45	50	60	65	70	66	72	81	70	70	75
22			75	90	95	100	105	115	110	126	144	110	110	110
33			85	95	105	120	130	145	140	160	170	140	140	150
47		90	100	120	135	150	160	180	180	193	210	170	170	170
100	100	150	170	180	210	250	270	350	270	306	340	340		
220	240	250	280	310	350	400	450	550	400					
330	300	330	350	370	440	500	550	700						
470	380	400	440	480	550	650	750	900						
1000	580	630	680	850	900	1050	1100	1050						
2200	890	920	1000	1200	1250	1300	1400							
3300	1020	1090	1200	1300	1400	1500	1600							
4700	1170	1200	1360	1500	1600	1700	1800							
6800	1270	1400	1600	1700	1800	1900								
10000	1450	1600	1800	1800	2000	2800								

**CODIGO**

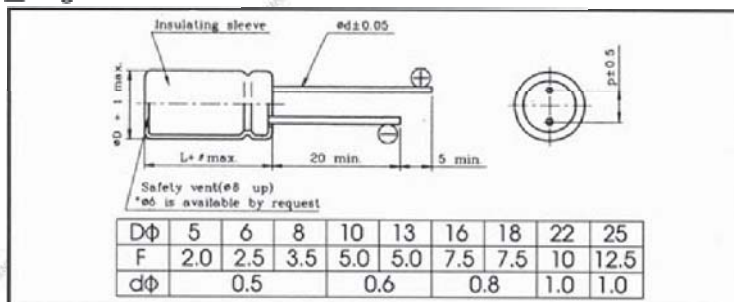
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**DESCRIPCION**

Electroliticos de aluminio

**ECR Series**

■ Diagram of Dimensions



Unit(mm)

■ Case Size of Standard Products

DxL(mm)

μF \ WV	6.3	10	16	25	35	50	63	100
0.47					→	5x11	5x11	5x11
1	ALL BLANK VOLTAGE ON SLEEVE MARKING IS SAME VOLTAGE "→" POINT TO				→	5x11	5x11	5x11
2.2					→	5x11	5x11	5x11
3.3					→	5x11	5x11	5x11
4.7					→	5x11	5x11	5x11
10		→	5x11	5x11	5x11	5x11	5x11	6x11
22		→	5x11	5x11	5x11	5x11	6x11	8x12
33		→	5x11	5x11	5x11	6x11	6x11	8x14
47	→	5x11	5x11	5x11	6x11	6x11	8x12	10x16
100	5x11	5x11	5x11	6x11	8x12	8x12	10x12.5	13x21
220	5x11	6x11	6x11	8x12	8x14	10x16	10x21	13x26
330	6x11	6x11	8x12	8x14	10x16	10x21	13x21	16x26
470	6x12	8x12	8x12	8x14	10x16	13x21	13x26	16x32
1000	8x12	8x14	10x16	10x21	13x21	16x26	16x32	22x41
2200	10x16	10x16	13x21	13x26	16x26	16x36	18x38	
3300	10x21	13x21	13x26	16x26	16x32	18x38	22x41	
4700	13x21	13x26	16x26	16x32	18x38	22x41	25x41	
6800	16x26	16x32	16x36	18x38	22x41	25x41		
10000	16x32	16x36	18x38	22x41	25x41	25x50		

μF \ WV	160	200	250	350	400	450
0.47	5x11	5x11	5x11	6x11	6x11	6x11
1	5x11	6x11	6x11	8x12	8x12	8x12
2.2	6x11	6x11	8x12	10x12.5	10x12.5	10x16
3.3	6x11	8x12	8x12	10x12.5	10x12.5	10x16
4.7	8x12	8x12	10x12.5	10x12.5	10x16	10x21
10	10x12.5	10x16	10x16	10x21	13x21	13x26
22	10x16	10x21	13x21	13x21	13x26	16x26
33	10x21	13x21	13x26	16x26	16x32	16x32
47	13x21	13x26	16x26	16x32	16x36	16x36
100	16x26	16x32	16x32	18x38		
220	18x38					