

AXIAL TYPE ALUMINUM ELECTROLYTIC CAPACITORS

Suntan®

LOW VOLTAGE, 2 RUBBER TYPE

TS13AE

FEATURES

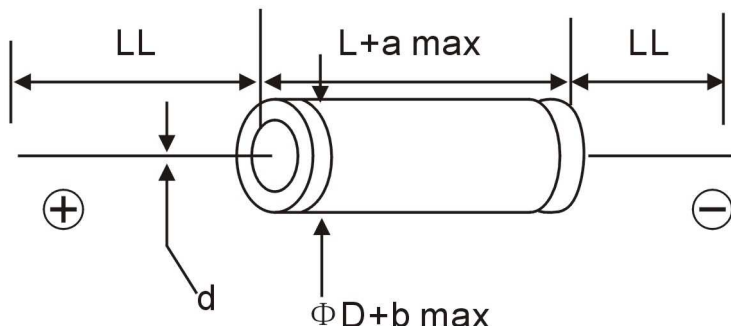
- 85°C, 2000 hours assured.
- For general purpose application



I T E M S		C H A R A C T E R I S T I C																																							
Operating Temperature Range		-40°C ~ +85°C																																							
Voltage Range		6.3 ~ 160 WV																																							
Capacitance Tolerance		±20% (at 20°C 120Hz)																																							
Leakage Current(µA)(20°C)		$I \leq 0.01CV$ or $3 (\mu A)$ Whichever is greater (after 3 minutes applying the rated DC working voltage at 20°C) where: C = rated capacitance in µF. V = rated DC working voltage in V.																																							
Dissipation Factor (Tan δ) (At 20°C, 120Hz)		<table border="1"> <thead> <tr> <th>WV</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> <th>160</th> </tr> </thead> <tbody> <tr> <td>DF</td> <td>24</td> <td>20</td> <td>16</td> <td>14</td> <td>12</td> <td>10</td> <td>10</td> <td>10</td> <td>20</td> </tr> </tbody> </table> For capacitors whose capacitance exceeds 1,000µF, the specification of tan δ is increased by 0.02 for every addition of 1,000µF.										WV	6.3	10	16	25	35	50	63	100	160	DF	24	20	16	14	12	10	10	10	20										
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Low Temperature Characteristics		Impedance ratio at 120Hz. <table border="1"> <thead> <tr> <th>Comparison Z\ WV</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> <th>160</th> </tr> </thead> <tbody> <tr> <td>-25°C / +20°C</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>3</td> <td>2</td> <td>3</td> </tr> <tr> <td>-40°C / +20°C</td> <td>8</td> <td>6</td> <td>4</td> <td>4</td> <td>4</td> <td>2</td> <td>3</td> <td>3</td> <td>-</td> </tr> </tbody> </table>										Comparison Z\ WV	6.3	10	16	25	35	50	63	100	160	-25°C / +20°C	4	3	2	2	2	2	3	2	3	-40°C / +20°C	8	6	4	4	4	2	3	3	-
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Load Life		After 2000 hours application of rated voltage at 85°C, capacitors meet the characteristics requirements listed at right.	<table border="1"> <tbody> <tr> <td>Capacitance Change</td> <td colspan="8">Less than ±25% of initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td colspan="8">Less than 200% of specified value</td> </tr> <tr> <td>Leakage Current</td> <td colspan="8">Initial specified value of less</td> </tr> </tbody> </table>								Capacitance Change	Less than ±25% of initial value								Dissipation Factor	Less than 200% of specified value								Leakage Current	Initial specified value of less											
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Shelf Life		After leaving capacitors under no load at 85°C for 500 hours and applying voltage they meet the specified value for load life characteristics listed above.																																							

DIAGRAM OF DIMENSIONS

Unit:mm



LEAD DIAMETER

ØD	5	6.3	8	10	13	16	18	22	25
Ød	0.5	0.6			0.8				
a	1.0				2.0				
b	0.5				1.0				

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DIMENSIONS: Diameter (DØ) x Length (L) m/m

RIPPLE CURRENT. mA at 85°C, 120Hz

V.DC	6.3V (0J)		10V (1A)		16V (1C)		25V (1E)		35V (1V)		50V (1H)		63V (1J)		100V (2A)		160V (2C)			
	µF	ØDxL	mA	ØDxL	mA	ØDxL	mA	ØDxL	mA	ØDxL	mA	ØDxL	mA	ØDxL	mA	ØDxL	mA	ØDxL	mA	
3.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8x16	33	
4.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8x16	39	
10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8x20	60	
22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8x16	120	10x26	120
33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8x16	150	13x26	170	
47	--	--	--	--	--	--	--	--	--	--	--	--	--	8x16	160	8x20	190	16x32	230	
100	--	--	--	--	--	--	--	--	8x16	210	8x16	220	8x20	260	10x26	340	16x41.5	430		
220	--	--	--	--	8x16	260	8x16	280	8x20	340	10x21	410	10x26	480	13x26	560	22x41	680		
330	8x16	250	8x16	300	8x16	320	8x20	380	10x21	460	10x26	560	13x26	650	13x31	750	--	--		
470	8x16	330	8x16	350	8x20	430	10x21	510	10x26	610	13x36	730	13x31	840	16x32	970	--	--		
1000	10x21	600	10x21	640	10x26	770	13x26	900	13x31	1060	16x32	1260	16x32	1330	22x41	1540	--	--		
2200	13x26	1020	13x26	1090	13x31	1180	16x32	1480	16x32	1580	18x40	1920	22x41	2160	25x53	2430	--	--		
3300	13x26	1200	13x31	1390	16x32	1620	16x40	1710	18x40	2050	22x41	2340	22x52	2470	--	--	--	--		
4700	16x32	1500	16x32	1730	16x40	1840	18x40	2170	22x41	2470	22x52	2650	25x53	2710	--	--	--	--		
6800	16x32	1840	16x40	1930	18x40	2310	22x41	2580	22x52	2720	25x53	2910	--	--	--	--	--	--		
10000	16x32	2260	18x40	2350	22x41	2620	22x52	2940	25x53	3600	--	--	--	--	--	--	--	--		
15000	22x41	2450	22x41	2730	22x52	2860	25x53	3880	--	--	--	--	--	--	--	--	--	--		
22000	22x52	2550	22x52	2940	25x53	3630	--	--	--	--	--	--	--	--	--	--	--	--		

Note: Specification are subject to change without notice. For more detail and update, please visit our website.