

ALUMINUM ELECTROLYTIC CAPACITORS

Suntan®

CHIP TYPE SERIES

TS13CJ

FEATURES

- Endurance : 105°C 2000H.
- Specially designed for LED display screen.
- Designed for reflow soldering.
- Designed for surface mounting on high-density PCB.



Standard Series

◆ Specifications

ITEMS	PERFORMANCE CHARACTERISTICS												
Operating Temperature Range	-40°C ~ +105°C												
Voltage Range	10~16V												
Capacitance Range	220 μF												
Capacitance Tolerance	±20% at 120Hz, 20°C												
Leakage Current	Leakage current ≤ 0.01CV or 3 μA, whichever is greater. (After 2 minutes' application of rated voltage)												
Tan δ	Measurement frequency : 120Hz, Temperature : +20°C <table border="1"> <tr> <td>Rated voltage (V)</td> <td>10</td> <td>16</td> </tr> <tr> <td>Tan δ (MAX)</td> <td>0.24</td> <td>0.20</td> </tr> </table>	Rated voltage (V)	10	16	Tan δ (MAX)	0.24	0.20						
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Characteristics at low temperature	Measurement frequency : 120Hz <table border="1"> <tr> <td colspan="2">Rated voltage (V)</td> <td>10</td> <td>16</td> </tr> <tr> <td>Impedance ratio</td> <td>Z-25°C / Z+20°C</td> <td>4</td> <td>3</td> </tr> <tr> <td>ZT / Z20 (MAX)</td> <td>Z-40°C / Z+20°C</td> <td>8</td> <td>6</td> </tr> </table>	Rated voltage (V)		10	16	Impedance ratio	Z-25°C / Z+20°C	4	3	ZT / Z20 (MAX)	Z-40°C / Z+20°C	8	6
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Endurance	After applying rated working voltage for 2000 hours at +105°C ± 2°C, and then being stabilized at +20°C, capacitors shall meet the following limits. <table border="1"> <tr> <td>Capacitance change</td> <td>Within ±30% of the initial value</td> </tr> <tr> <td>Tan δ</td> <td>Less than 300% of the initial value</td> </tr> <tr> <td>Leakage Current</td> <td>Within the initial limit</td> </tr> </table>	Capacitance change	Within ±30% of the initial value	Tan δ	Less than 300% of the initial value	Leakage Current	Within the initial limit						
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Self Life	After storage for 1000 h at +105°C ± 2°C with no voltage applied and then being stabilized at +20°C, capacitors shall meet the limits specified in endurance.												
Resistance to Soldering Heat	After reflow soldering and then being stabilized at +20°C, capacitors shall meet the following limits. <table border="1"> <tr> <td>Capacitance Change</td> <td>Within ± 10% of initial value</td> </tr> <tr> <td>Tan δ</td> <td>Within the initial limit</td> </tr> <tr> <td>Leakage Current</td> <td>Within the initial limit</td> </tr> </table>	Capacitance Change	Within ± 10% of initial value	Tan δ	Within the initial limit	Leakage Current	Within the initial limit						
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Frequency correction factor for ripple current	<table border="1"> <tr> <td>Frequency</td> <td>50Hz</td> <td>120Hz</td> <td>1kHz</td> <td>10kHz ≤</td> </tr> <tr> <td>Correction Factor</td> <td>0.7</td> <td>1.0</td> <td>1.2</td> <td>1.3</td> </tr> </table>	Frequency	50Hz	120Hz	1kHz	10kHz ≤	Correction Factor	0.7	1.0	1.2	1.3		
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◆ Drawing (Unit: mm)



*1 Markings: SuJ, SJ, AJK

Dimensions						Unit: mm
ØD	L	A	B	C	W	P±0.2
6.3	5.7	6.6	6.6	7.3	0.5~0.8	2.2
6.3	7.7	6.6	6.6	7.3	0.5~0.8	2.2

◆ Standard size & Maximum permissible ripple current

WV		10		16	
		1A		1C	
Cap.(μF)					
220	221	6.3x5.7	75	6.3x7.7	110

Allowable Ripple (mA rms) at 105°C 120Hz