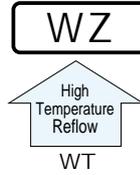


ALUMINUM ELECTROLYTIC CAPACITORS

WZ Chip Type, Wide Temperature Range
High Temperature (260°C) Reflow
series



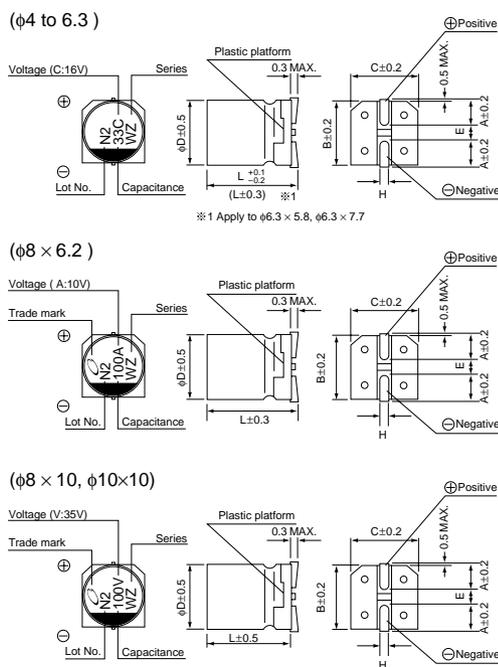
- Corresponding with 260°C peak reflow soldering
Recommended reflow condition : 260°C peak 5 sec 230°C over 60 sec 2 times
(φ8 × 6.2, φ10 × 10 : 1 time)
- Chip type operating over wide temperature range of to -55 to +105°C.
- Applicable to automatic mounting machine using carrier tape.
- Adapted to the RoHS directive (2002/95/EC).



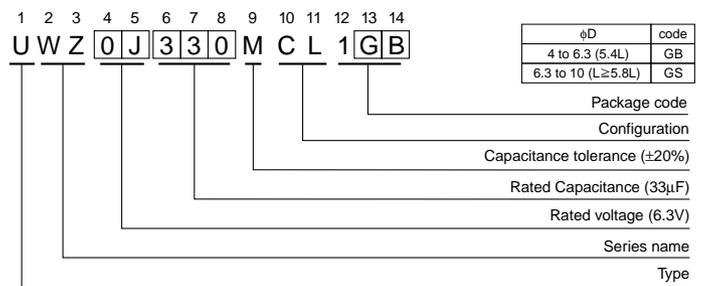
Specifications

Item	Performance Characteristics																							
Category Temperature Range	-55 to +105°C																							
Rated Voltage Range	6.3 to 50V																							
Rated Capacitance Range	0.1 to 1500μF																							
Capacitance Tolerance	±20% at 120Hz, 20°C																							
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.01CV or 3 (μA), whichever is greater.																							
tan δ	Measurement frequency : 120Hz, Temperature : 20°C																							
	<table border="1"> <tr> <td>Rated voltage (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>tan δ (MAX.)</td> <td>0.30</td> <td>0.24</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.14</td> </tr> </table>	Rated voltage (V)	6.3	10	16	25	35	50	tan δ (MAX.)	0.30	0.24	0.20	0.16	0.14	0.14									
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Stability at Low Temperature	Measurement frequency : 120Hz																							
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Endurance	<p>After 1000 hours' application of rated voltage at 105°C, capacitors meet the characteristic requirements listed at right.</p> <table border="1"> <tr> <td>Capacitance change</td> <td>Within ±25% of initial value for capacitors of 16V or less. Within ±20% of initial value for capacitors of 25V or more.</td> </tr> <tr> <td>tan δ</td> <td>200% or less of initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>Initial specified value or less</td> </tr> </table>	Capacitance change	Within ±25% of initial value for capacitors of 16V or less. Within ±20% of initial value for capacitors of 25V or more.	tan δ	200% or less of initial specified value	Leakage current	Initial specified value or less																	
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Shelf Life	After storing the capacitors under no load at 105°C for 1000 hours, and after performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they will meet the specified value for endurance characteristics listed above.																							
Resistance to soldering heat	<p>The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the characteristic requirements listed at right.</p> <table border="1"> <tr> <td>Capacitance change</td> <td>Within ±10% of initial value</td> </tr> <tr> <td>tan δ</td> <td>Initial specified value or less</td> </tr> <tr> <td>Leakage current</td> <td>Initial specified value or less</td> </tr> </table>	Capacitance change	Within ±10% of initial value	tan δ	Initial specified value or less	Leakage current	Initial specified value or less																	
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Marking	Black print on the case top.																							

Chip Type



Type numbering system (Example : 6.3V 33μF)



φD × L	(mm)							
	4 × 5.4	5 × 5.4	6.3 × 5.4	6.3 × 5.8	6.3 × 7.7	8 × 6.2	8 × 10	10 × 10
A	1.8	2.1	2.4	2.4	2.4	3.3	2.9	3.2
B	4.3	5.3	6.6	6.6	6.6	8.3	8.3	10.3
C	4.3	5.3	6.6	6.6	6.6	8.3	8.3	10.3
E	1.0	1.3	2.2	2.2	2.2	2.3	3.1	4.5
L	5.4	5.4	5.4	5.4	7.7	6.2	10	10
H	0.5 to 0.8	0.8 to 1.1	0.8 to 1.1					

Voltage	
V	6.3 10 16 25 35 50
Code	j A C E V H

● Dimension table in next page.

■ Dimensions

Cap. (μF)	V Code	6.3		10		16		25		35		50	
		OJ		1A		1C		1E		1V		1H	
0.1	0R1											4 × 5.4	1.0
0.22	R22											4 × 5.4	2.6
0.33	R33											4 × 5.4	3.2
0.47	R47											4 × 5.4	3.8
1	010											4 × 5.4	6.3
2.2	2R2											4 × 5.4	11
3.3	3R3											4 × 5.4	14
4.7	4R7							4 × 5.4	13	4 × 5.4	15	5 × 5.4	19
10	100					4 × 5.4	18	5 × 5.4	23	5 × 5.4	25	6.3 × 5.4	30
22	220	4 × 5.4	22	5 × 5.4	27	5 × 5.4	30	6.3 × 5.4	38	6.3 × 5.4	42	8 × 6.2	51
33	330	5 × 5.4	30	5 × 5.4	35	6.3 × 5.4	40	6.3 × 5.4	48	8 × 6.2	59	6.3 × 7.7	60
47	470	5 × 5.4	36	6.3 × 5.4	46	6.3 × 5.4	50	8 × 6.2	66	6.3 × 5.8	63	6.3 × 7.7	63
100	101	6.3 × 5.4	60	6.3 × 5.4	60	6.3 × 5.4	60	6.3 × 7.7	91	6.3 × 7.7	84	8 × 10	140
150	151	6.3 × 5.8	86	6.3 × 5.8	86	6.3 × 7.7	95	8 × 10	140	8 × 10	155	10 × 10	180
220	221	8 × 6.2	102	6.3 × 7.7	105	6.3 × 7.7	105	8 × 10	155	10 × 10	190	10 × 10	220
330	331	6.3 × 7.7	105	8 × 10	195	8 × 10	195	10 × 10	190	10 × 10	300		
470	471	8 × 10	210	8 × 10	210	8 × 10	210	10 × 10	300				
680	681	8 × 10	210	10 × 10	310	10 × 10	310						
1000	102	10 × 10	230	10 × 10	310								
1500	152	10 × 10	310										
												Case size φ D × L (mm)	Rated ripple

Rated Ripple (mA_{rms}) at 105°C 120Hz

● Frequency coefficient of rated ripple current

Frequency	50 Hz	120 Hz	300 Hz	1 kHz	10 kHz or more
Coefficient	0.70	1.00	1.17	1.36	1.50

- Taping specifications are given in page 23.
- Recommended land size, soldering by reflow are given in page 18, 19.
- Please refer to page 3 for the minimum order quantity.