

UWZ

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



- 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 fed with carrier tape.
- Compliant to the RoHS directive (2011/65/EU).

UWZ

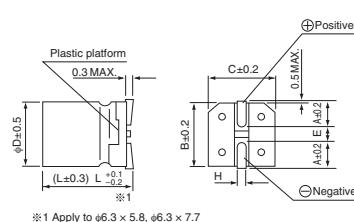
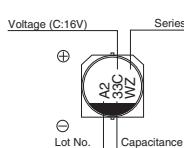
High Temperature Reflow
UWT

**■ Specifications**

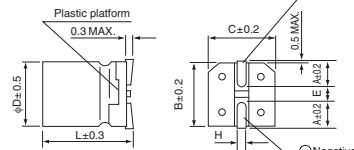
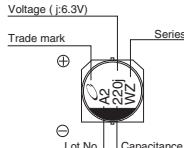
Item	Performance Characteristics																											
Category Temperature Range	-55 to +105°C																											
Rated Voltage Range	6.3 to 50V																											
Rated Capacitance Range	1 to 1500μF																											
Capacitance Tolerance	±20% at 120Hz, 20°C																											
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.01CV or 3 (μA), whichever is greater.																											
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz at 20°C <table border="1"> <tr> <th>Rated voltage (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> </tr> <tr> <th>tan δ (MAX.)</th> <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 <table border="1"> <tr> <th>Rated voltage (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> </tr> <tr> <th>Impedance ratio Z-25°C / Z+20°C</th> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <th>ZT / Z20 (MAX.)</th> <td>8</td> <td>8</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> </tr> </table>							Rated voltage (V)	6.3	10	16	25	35	50	Impedance ratio Z-25°C / Z+20°C	4	3	2	2	2	2	ZT / Z20 (MAX.)	8	8	4	4	3	3
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Impedance ratio Z-25°C / Z+20°C	4	3	2	2	2	2																						
ZT / Z20 (MAX.)	8	8	4	4	3	3																						
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 1000 hours at 105°C.			Capacitance change	Within ±25% of the initial capacitance value for capacitors of 16V or less. Within ±20% of the initial capacitance value for capacitors of 25V or more.																							
				tan δ	200% or less than the initial specified value																							
				Leakage current	Less than or equal to the initial specified value																							
Shelf Life	After storing the capacitors under no load at 105°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified values for the endurance characteristics listed above.																											
Resistance to soldering heat	The capacitors are kept on a hot plate for 30 seconds, which is maintained at 250°C. The capacitors shall meet the characteristic requirements listed at right when they are removed from the plate and restored to 20°C.			Capacitance change	Within ±10% of the initial capacitance value																							
				tan δ	Less than or equal to the initial specified value																							
Marking	Black print on the case top.																											

■ Chip Type

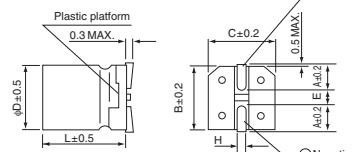
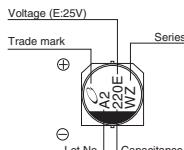
(φ4 to φ6.3)



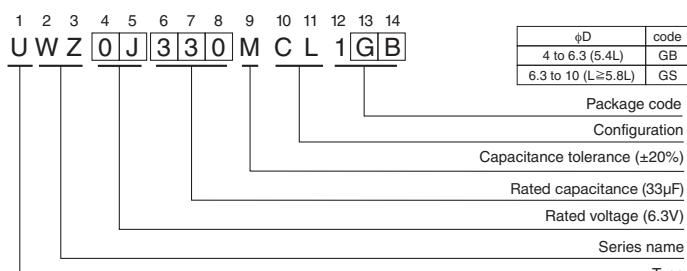
(φ8 × 6.2)



(φ8 × 10, φ10×10)



Type numbering system (Example : 6.3V 33μF)



φD × L	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	(mm)
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.

UWZ

■ Dimensions

Cap. (μF)	V	6.3		10		16		25		35		50	
		Code	0J	Code	1A	Code	1C	Code	1E	Code	1V	Code	1H
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											

Rated ripple current (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.