

UWX

5.5mmL Chip Type



- Chip type with 5.5mm height.
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine fed with carrier tape.
- Load life of 2000 hours at 85°C.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).
- AEC-Q200 compliant. Please contact us for details.



Specifications

Item	Performance Characteristics																									
Category Temperature Range	-40 to +85°C																									
Rated Voltage Range	4 to 50V																									
Rated Capacitance Range	1 to 330μF																									
Capacitance Tolerance	±20% at 120Hz, 20°C																									
Leakage Current	After 2 minutes' application of rated voltage at 20°C, 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"> <thead> <tr> <th>Rated voltage (V)</th> <th>4</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> </tr> </thead> <tbody> <tr> <td>tan δ (MAX.)</td> <td>0.35 (0.40)</td> <td>0.26 (0.30)</td> <td>0.20 (0.24)</td> <td>0.16 (0.19)</td> <td>0.14 (0.16)</td> <td>0.12 (0.14)</td> <td>0.12 (0.14)</td> </tr> </tbody> </table> <p>Values in () applicable to WR.</p>	Rated voltage (V)	4	6.3	10	16	25	35	50	tan δ (MAX.)	0.35 (0.40)	0.26 (0.30)	0.20 (0.24)	0.16 (0.19)	0.14 (0.16)	0.12 (0.14)	0.12 (0.14)									
Rated voltage (V)	4	6.3	10	16	25	35	50																			
tan δ (MAX.)	0.35 (0.40)	0.26 (0.30)	0.20 (0.24)	0.16 (0.19)	0.14 (0.16)	0.12 (0.14)	0.12 (0.14)																			
Stability at Low Temperature	Measurement frequency : 120Hz																									
	<table border="1"> <thead> <tr> <th colspan="2">Rated voltage (V)</th> <th>4</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Impedance ratio ZT / Z20 (MAX.)</td> <td>Z-25°C / Z+20°C</td> <td>7</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z-40°C / Z+20°C</td> <td>15</td> <td>8</td> <td>8</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> </tr> </tbody> </table>	Rated voltage (V)		4	6.3	10	16	25	35	50	Impedance ratio ZT / Z20 (MAX.)	Z-25°C / Z+20°C	7	4	3	2	2	2	2	Z-40°C / Z+20°C	15	8	8	4	4	3
Rated voltage (V)		4	6.3	10	16	25	35	50																		
Impedance ratio ZT / Z20 (MAX.)	Z-25°C / Z+20°C	7	4	3	2	2	2	2																		
	Z-40°C / Z+20°C	15	8	8	4	4	3	3																		
Endurance	<p>The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 2000 hours at 85°C.</p> <table border="1"> <tbody> <tr> <td>Capacitance change</td> <td>Within ±20% of the initial capacitance value (Within ±25% for 4 V and WR series units)</td> </tr> <tr> <td>tan δ</td> <td>200% or less than the initial specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Less than or equal to the initial specified value</td> </tr> </tbody> </table>	Capacitance change	Within ±20% of the initial capacitance value (Within ±25% for 4 V and WR series units)	tan δ	200% or less than the initial specified value	Leakage Current	Less than or equal to the initial specified value																			
Capacitance change	Within ±20% of the initial capacitance value (Within ±25% for 4 V and WR series units)																									
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 85°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	<p>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.</p> <table border="1"> <tbody> <tr> <td>Capacitance change</td> <td>Within ±10% of the initial capacitance value</td> </tr> <tr> <td>tan δ</td> <td>Less than or equal to the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>Less than or equal to the initial specified value</td> </tr> </tbody> </table>	Capacitance change	Within ±10% of the initial capacitance value	tan δ	Less than or equal to the initial specified value	Leakage current	Less than or equal to the initial specified value																			
Capacitance change	Within ±10% of the initial capacitance value																									
tan δ	Less than or equal to the initial specified value																									
Leakage current	Less than or equal to the initial specified value																									
Marking	Black print on the case top.																									

Chip Type



※1. Voltage mark for 6.3V is 「6V」.

Type numbering system (Example : 16V 10μF)



● Dimension table in next page.

UWX

■ Dimensions

Cap. (μF)	Code	V		4		6.3		10		16		25		35		50	
		0G	0J	1A	1C	1E	1V	1H									
1	010															4	8.4
2.2	2R2															4	13
3.3	3R3															4	17
4.7	4R7											4	16	4	18	•5	20 (18)
10	100								4	23	•5	27 (24)	•5	29 (24)	○6.3	33 (30)	
22	220			4	28	•5	33 (30)	•5	37 (30)	○6.3	42 (38)	○6.3	46 (39)	□8	52 (43)		
33	330	4	28	•5	37 (34)	•5	41 (34)	○6.3	49 (44)	○6.3	52 (46)	□8	62 (53)	8	71		
47	470	4	33	•5	45 (40)	○6.3	52 (47)	○6.3	58 (52)	□8	70 (60)	8	80				
56	560	5	42	○6.3	52 (46)	○6.3	57 (50)	○6.3	63 (57)	□8	76 (65)						
100	101	5	56	○6.3	70 (47)	○6.3	76 (54)	6.3	86	8	110						
150	151	6.3	79	6.3	71	□8	111 (76)										
220	221	6.3	96	□8	110 (74)	8	135										
330	331	8	145	8	170												

Size φ4 is available for capacitors marked. " • " " " } In such a case, $\overline{W|B}$ will be put at 2nd and 3rd digit of type numbering system.
 Size φ5 is available for capacitors marked. " ○ " " " }
 Size φ6.3 is available for capacitors marked. " □ " " " }

Rated ripple current (mArms) at 85°C 120Hz
 () = UWR

● 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 select UUR(p.168), UUG(p.174) if high C/V products are required.
- Please refer to page 3 for the minimum order quantity.