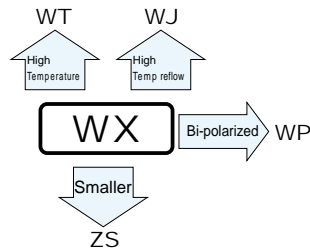


WX 5.5mmL Chip Type
series



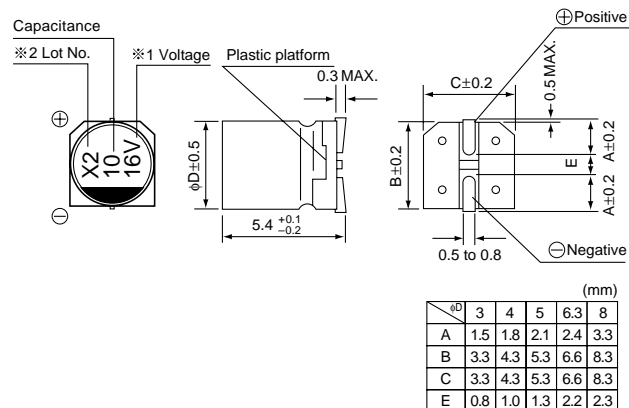
- Chip type with 5.5mm height.
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine fed with carrier tape.
- Load life of 2000 hours at 85°C.
- Compliant to the RoHS directive (2002/95/EC).



Specifications

Item	Performance Characteristics															
Category Temperature Range	-40 to +85°C															
Rated Voltage Range	4 to 50V															
Rated Capacitance Range	0.1 to 330μF															
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, Temperature : 20°C															
	Rated voltage (V)	4	6.3	10	16	25	35	50	Values in () applicable to WR, φ3 case size.							
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															
	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	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.															
									Capacitance change	Within ±20% of the initial capacitance value (Within ±25% for 4 V and φ3,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	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						
		Leakage current	Less than or equal to the initial specified value													
Marking	Black print on the case top.															

Chip Type

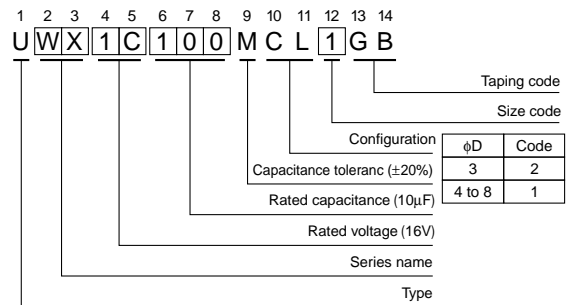


※1. Voltage mark for 6.3V is 「6V」.

In case of marking for φ3 units, 「V」 for rated voltage is omitted.

※2. In case of marking for φ3 units, Lot No. is expressed by a digit (month code).

Type numbering system (Example : 16V 10μF)



- In the case of size φ3 in (), parentheses, use WX in the 2nd and 3rd digit and put a 2 in the 12th digit of type numbering system.

■ Dimensions

V		4		6.3		10		16		25		35		50	
Cap. (μF)	Code	0G	0J	1A	1C	1E	1V	1H							
0.1	0R1													4 (3)	1.0
0.22	R22													4 (3)	2.0
0.33	R33													4 (3)	2.8
0.47	R47													4 (3)	4.0
1	010													4 (3)	8.4 (8.0)
2.2	2R2											3	8.4	4 (3)	13 (10)
3.3	3R3											3	10	4	17
4.7	4R7									4 (3)	16 (12)	4	18	● 5	20 (18)
10	100							4 (3)	23 (18)	● 5	27 (24)	● 5	29 (24)	○ 6.3	33 (30)
22	220	3	19	4 (3)	28 (21)	● 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										

() is also available with φ3mm upon request.

Rated ripple current (mA rms) at 85°C 120Hz

- In the case of size φ3 in (), parentheses, use WX at 2nd and 3rd digit and put [2] at the 12th digit of type numbering system. () = φ3 units and WR Series

Size φ4 is available for capacitors marked. " ● "

Size φ5 is available for capacitors marked. " ○ "

Size φ6.3 is available for capacitors marked. " □ "

In such a case, [WR] will be put at 2nd and 3rd digit of type numbering system.

● 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 UR(p.100), UG(p.106) series if high C/V products are required.
- Please refer to page 3 for the minimum order quantity.