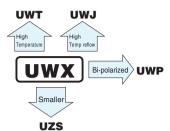


5.5mmL Chip Type



- 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.

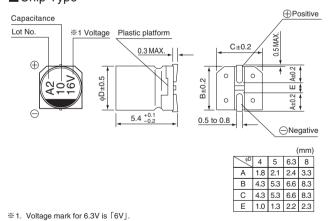




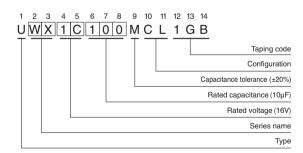
## ■ Specifications

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.														
	Measurement frequency : 120Hz at 20°C														
Tangent of loss angle (tan $\delta$ )	Rated voltage (V)	4	6.3	10		16	25	5	35	50					
	tan δ (MAX.)	0.35 (0.40)	0.26 (0.30)	0.20 (0.3	24)	0.16 (0.19)	0.14 (	0.16) 0.1	2 (0.14)	0.12 (0.14)	)	Value	es in (	) applicab	le to WR.
	Measurement frequency: 120Hz														
O. 1.33	Rated vo	ltage (V)		4	6.	.3	10	16	25	35	;	50			
Stability at Low Temperature	Impedance ratio	Z-25°C /	Z+20°C	7	4	4	3	2	2	2		2			
	ZT / Z20 (MAX.)	Z-40°C /	Z+20°C	15	8	В	8	4	4	3		3			
	The specifications listed at right shall be met Capacitance change   Within ±20% of the initial capacitance value (Within ±25% for 4 V and WR series units)											P corioc unite)			
Endurance	when the capacitors are restored to 20°C after the rated voltage is applied for 2000 hours at 85°C.					tan δ	101100 01	nango	200% or less than the initial specified value				1 ochoo unitoj		
Endurance											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.														
	The capacitors are kept on a hot plate for 30 seconds, which is Capacitance change Within ±10% of the initial capac									tial canacitar	nce value				
Resistance to soldering	maintained at 250°C. The capacitors shall meet the											ss than or equal to the initial specified value			
heat									Leakage current Less than or equa						
Marking	Black print on the	case top.													

## ■Chip Type



Type numbering system (Example : 16V 10µF)





## **■** Dimensions

V		4		6.3		10		16		25		35		50	
Cap. (µF)	Code	0	G	(	)J	1A		1C		1E		1V		1H	
1	010		 											4	8.4
2.2	2R2		i i		!		1		1					4	13
3.3	3R3		l I				1							4	17
4.7	4R7		i !		!		!		!	4	16	4	18	•5	20 (18)
10	100		i i		i		i	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		i				i	Case size	Rated
330	331	8	145	8	170									φD (mm)	ripple

Size  $\varphi 4$  is available for capacitors marked. "  $^{\bullet}$  " Size  $\varphi 5$  is available for capacitors marked. "  $^{\circ}$  " Size  $\varphi 6.3$  is available for capacitors marked. "  $^{\Box}$  "  $^{\Box}$  "

In such a case,  $\overline{\mathbb{W}[R]}$  will be put at 2nd and 3rd digit of type numbering system.

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 reqired.
- Please refer to page 3 for the minimum order quantity.