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





- Corresponding with 260°C peak reflow soldering Recomended reflow condition: 260°C peak 5 sec 230°C over 60 sec 2 times  $(\phi 8 \times 6.2, \phi 10 \times 10 : 1 \text{ time})$
- 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).
- AEC-Q200 compliant. Please contact us for details.



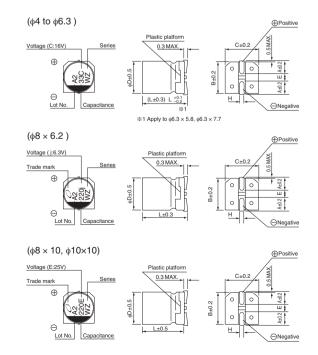
**UWT** 



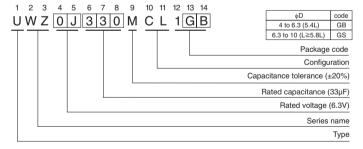
### ■Specifications

Item	Performance Characteristics										
Category Temperature Range	−55 to +105°C	-55 to +105°C									
Rated Voltage Range	6.3 to 50V	.3 to 50V									
Rated Capacitance Range	1 to 1500μF	to 1500μF									
Capacitance Tolerance	±20% at 120Hz, 2	20% at 120Hz, 20°C									
Leakage Current	After 2 minutes' ap	plication of	rated volta	ige at 2	0°C, leaka	age cur	rent is not m	ore than	0.01CV c	or 3 (μA), whichever is greater.	
					Me	asureme	ent frequency	: 120Hz a	t 20°C		
Tangent of loss angle (tan $\delta$ )	Rated voltage (V)	6.3	10		16	25	35	5	0		
	tan δ (MAX.)	0.30	0.24		0.20	0.16	0.14	0.1	14		
	Measurement frequency : 120Hz										
Ctability at Law Tagas and was	Rated voltage (V)		6.3	10	16	25	35	50			
Stability at Low Temperature	Impedance ratio	Z-25°C /	Z+20°C	4	3	2	2	2	2		
	ZT / Z20 (MAX.)	Z-40°C /	Z+20°C	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				Capacitance Within ±25% of the initial capacitance value for capacitors of 16V change Within ±20% of the initial capacitance value for capacitors of 25V tan δ 200% or less than the initial specified value					nce value for capacitors of 25V or more.	
	1000 hours at 105		аррііса іо	'	Leakage o	urrent					
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 semaintained at 250°C. The capacitors shall mee characteristic requirements listed at right when removed from the plate and restored to 20°C.			all meet t when t	the	ch is	Capacitance tan δ Leakage cu		Less tha	e 10% of the initial capacitance value an or equal to the initial specified value an or equal to the initial specified value	
Marking	Black print on the	Black print on the case top.									

### ■Chip Type



Type numbering system (Example: 6.3V 33µF)



								(mm)
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
Α	1.8	2.1	2.4	2.4	2.4	3.3	2.9	3.2
В	4.3	5.3	6.6	6.6	6.6	8.3	8.3	10.3
С	4.3	5.3	6.6	6.6	6.6	8.3	8.3	10.3
Е	1.0	1.3	2.2	2.2	2.2	2.3	3.1	4.5
L	5.4	5.4	5.4	5.8	7.7	6.2	10	10
Н	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	i	Δ	C	F	V	н

Dimension table in next page.



## **■**Dimensions

V		6.3		10		16		25		35		50	
Cap. (µF) Code		0J		1A		1C		1E		1V		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	$6.3 \times 5.4$	60	6.3 × 5.4	60	6.3 × 5.4	60	$6.3 \times 7.7$	91	6.3 × 7.7	84	8 × 10	140
150	151	$6.3 \times 5.8$	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	$6.3 \times 7.7$	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							Case size	Rated
1500	152	10 × 10	310									φD×L (mm)	ripple

Rated ripple current (mArms) 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.

# **Mouser Electronics**

**Authorized Distributor** 

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# Nichicon:

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