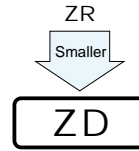


# ALUMINUM ELECTROLYTIC CAPACITORS

**ZD** 3.0mmL Chip Type  
series



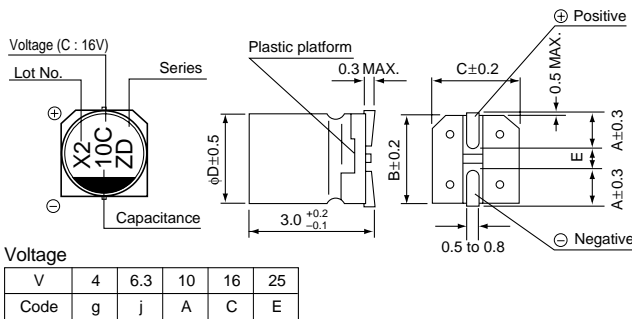
- Chip type with 3.0mmL height.
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine using carrier tape.
- Adapted to the RoHS directive (2002/95/EC).



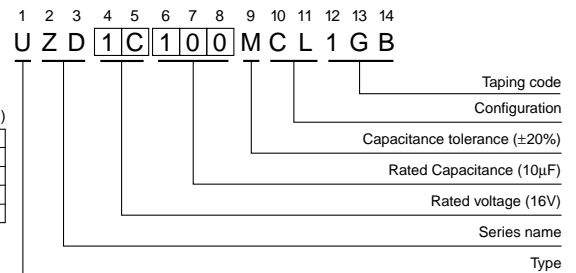
## Specifications

Item	Performance Characteristics							
Category Temperature Range	-40 to +85°C							
Rated Voltage Range	4 to 25V							
Rated Capacitance Range	2.2 to 100μF							
Capacitance Tolerance	±20% at 120Hz, 20°C							
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.01 CV or 3 (μA), whichever is greater.							
tan δ	Rated voltage (V)	4	6.3	10	16	25	120Hz 20°C	
	tan δ (MAX.)	0.50	0.40	0.30	0.24	0.19		
Stability at Low Temperature	Rated voltage (V)	4	6.3	10	16	25	120Hz	
	Impedance ratio ZT / Z20 (MAX.)	Z-25°C / Z+20°C	7	4	3	2		2
		Z-40°C / Z+20°C	15	8	8	4		4
Endurance	After 1000 hours' application of rated voltage at 85°C, capacitors meet the characteristic requirements listed at right.						Capacitance change	Within ±30% of initial value
							tan δ	300% or less of initial specified value
							Leakage current	Initial specified value or less
Shelf Life	After storing the capacitors under no load at 85°C for 1000 hours, and after performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they will meet the specified value for endurance characteristics listed above.							
Resistance to soldering heat	The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the characteristic requirements listed at right.						Capacitance change	Within ±10% of initial value
							tan δ	Initial specified value or less
							Leakage current	Initial specified value or less
Marking	Black print on the case top.							

## Chip Type



## Type numbering system (Example : 16V 10μF)



## Dimensions

Cap. (μF)	Code	V		4		6.3		10		16		25	
		0G	0J	1A	1C	1E							
2.2	2R2										4	7	
3.3	3R3										4	11	
4.7	4R7										4	16	
5.6	5R6										5	18	
6.8	6R8										5	20	
10	100									5	23	6.3	27
22	220	4	20	5	28	5	33	6.3	41				
33	330	5	28	5	37								
47	470	5	33	6.3	45								
100	101	6.3	56	6.3	70								

Rated Ripple (mArms) at 85°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 are given in page 18.
- Please contact us for the soldering by reflow.
- Please refer to page 3 for the minimum order quantity.