

# ALUMINUM ELECTROLYTIC CAPACITORS

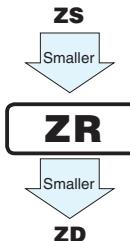
nichicon

**ZR**  
series

3.95mmL MAX. Chip Type



- Chip type with 3.95mmLMAX height.
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine fed with carrier tape.
- Compliant to the RoHS directive (2011/65/EU).

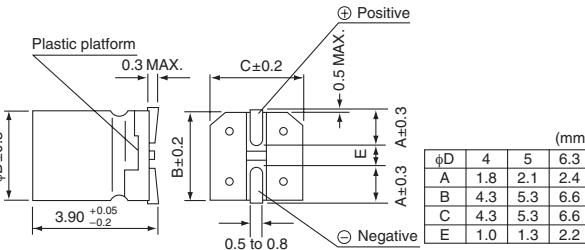


## ■ Specifications

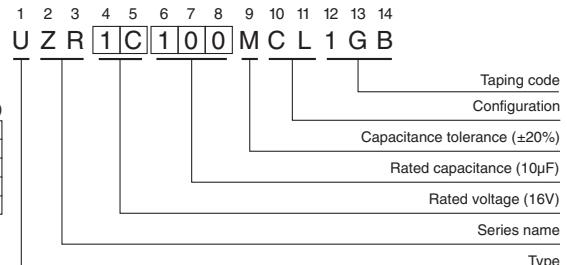
Item	Performance Characteristics												
Category Temperature Range	-40 to +85°C												
Rated Voltage Range	4 to 50V												
Rated Capacitance Range	0.1 to 220μF												
Capacitance Tolerance	±20% at 120Hz, 20°C												
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.01 CV or 3 (μA), whichever is greater.												
Tangent of loss angle (tan δ)	Rated voltage (V)	4	6.3	10	16	25	35	50	120Hz 20°C				
	tan δ (MAX.)	0.50	0.30	0.24	0.19	0.16	0.14	0.14					
Stability at Low Temperature	Rated voltage (V)	4	6.3	10	16	25	35	50	120Hz				
	Impedance ratio ZT / Z20 (MAX.)	Z-25°C / Z+20°C	7	4	3	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 1000 hours at 85°C.				Capacitance change	Within ±30% of the initial capacitance value							
					tan δ	300% 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.												
Marking	Black print on the case top.												

## ■ Chip Type

Voltage (C : 16V)	Series	Capacitance
Lot No.		
+		-
16V	4 6.3 10 16 25 35 50	
Code	g j A C E V H	



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



## ■ Dimensions

Cap. (μF)	Code	V	4	6.3	10	16	25	35	50	
		0G	0J	1A	1C	1E	1V	1H		
0.1	0R1								4	1.0
0.22	R22								4	2.0
0.33	R33								4	2.8
0.47	R47								4	4.0
1	010								4	8.4
2.2	2R2								4	13
3.3	3R3								4	17
4.7	4R7						4	18	5	20
10	100					4	23	5	29	6.3 33
22	220			4	28	5	33	5	37	6.3 46
33	330	4	28	5	37	5	41	6.3	49	6.3 52
47	470	4	33	5	45	6.3	52	6.3	58	
100	101	5	56	6.3	70					
220	221	6.3	96							

Rated ripple current (mA rms) 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 soldering by reflow are given in page 18,19.
- Please refer to page 3 for the minimum order quantity.