## ALUMINUM ELECTROLYTIC CAPACITORS

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).



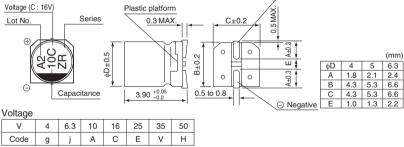


## ■Specifications

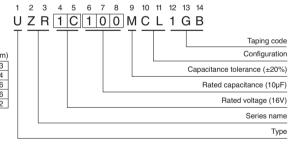
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Item	Performance Characteristics										
Category Temperature Range	-40 to +85°C										
Rated Voltage Range	4 to 50V										
Rated Capacitance Range	1 to 220µF										
Capacitance Tolerance	±20% at 120Hz, 20°C										
Leakage Current	After 2 minutes' application of rated voltage at 20°C, leakage current is not more than 0.01 CV or 3 (μA) , whichever is greater.										
Tangent of loss angle (tan $\delta$ )	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	2		
			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. $\begin{array}{c} \text{Capacitance} \\ \text{tan } \delta \\ \text{Leakage cui} \end{array}$							300% or less than 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 tan \(\delta\) Less than or equal to the initial specifies the initial specifies.							I to the initial specified value			
Marking	Black print on the case top.										

Positive





Type numbering system (Example :  $16V 10\mu F$ )



## ■ Dimensions

	V		4	6	.3	1	0	1	6	2	:5	3	5	5	0
Cap. (μF)	Code	0	G	0	J	1	Α	1	С	1	E	1	V	1	Н
1	010													4	8.4
2.2	2R2		i				i		i		İ		i	4	13
3.3	3R3		I I		l I		 				 		I I	4	17
4.7	4R7									4	16	4	18	5	20
10	100		i i		i I		İ	4	23	5	27	5	29	6.3	33
22	220		! !	4	28	5	33	5	37	6.3	42	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		i I		I I		
100	101	5	56	6.3	70						!				
220	221	6.3	96		i I		İ		İ		İ		i	Case size φD (mm)	Rated ripple

Rated ripple current (mArms) at 85°C 120Hz

## Frequency coefficient of rated ripple current

or requested account or raise rippie carrent										
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.