ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

ZT 4.5mmL Chip Type, Wide Temperature Range series

For SMD Smaller

- Chip type with 4.5mm height, operating over wide temperature range of –40 ~ +105°C.
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine using carrier tape.

WT
Smaller
ZT
Smaller
ZG

■Specifications

Item	Performance Characteristics
Category Temperature Range	–40 ~ +105°C
Rated Voltage Range	6.3 ~ 50V
Rated Capacitance Range	0.1 ~ 100µF
Capacitance Tolerance	±20% at 120Hz, 20°C
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.01CV or 3 (µA) , whichever is greater.
tan δ	Measurement frequency : 120Hz, Temperature : 20°C

Rated voltage (V)	6.3	10	16	25	35	50
tan δ (MAX.)	0.38	0.32	0.20	0.16	0.14	0.14

Stability at Low Temperature — Measurement frequency : 120Hz

Rated voltage (V)		6.3	10	16	25	35	50
Impedance ratio ZT / Z20 (MAX.)	Z–25°C / Z+20°C	6	5	3	3	3	3
	Z–40°C / Z+20°C	10	10	6	6	4	4

Endurance

After 1000 hours' application of rated voltage at 105°C, capacitors meet the characteristic requirements listed at right.

Capacitance change	Within ±25% of initial value (16V or less) Within ±20% of initial value (25V or more)
tan δ	300% or less of initial specified value
Leakage current	Initial specified value or less

Shelf Life

After leaving capacitors under no load at 105°C for 1000 hours, they meet the specified value for endurance characteristics listed above.

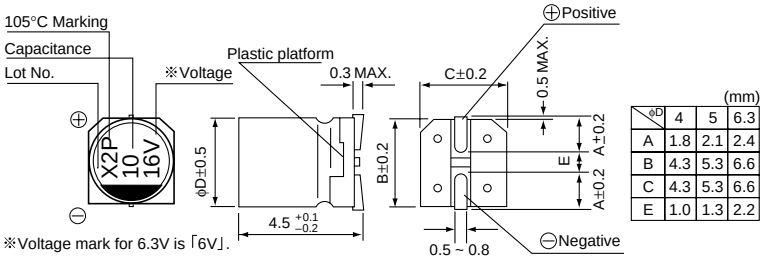
Resistance to soldering heat

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



※Voltage mark for 6.3V is「6V」.

(mm)

φD	4	5	6.3
A	1.8	2.1	2.4
B	4.3	5.3	6.6
C	4.3	5.3	6.6
E	1.0	1.3	2.2

Type numbering system (Example : 16V 10µF)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
U	Z	T	1	C	1	0	0	M	C	R	1	G	B

Taping code
Configuration
Capacitance tolerance (±20%)
Rated Capacitance (10µF)
Rated voltage (16V)
Series name
Type

- The lead-free product is also available upon request. In this case, L will be put at 11th digit of type numbering system.

■Dimensions

Cap. (µF) \ V	Code	6.3		10		16		25		35		50	
		0J		1A		1C		1E		1V		1H	
0.1	0R1											4	0.9
0.22	R22											4	2.2
0.33	R33											4	2.8
0.47	R47											4	3.3
1	010											4	5.4
2.2	2R2											4	9.6
3.3	3R3											4	12
4.7	4R7							4	11	4	13	5	16
10	100					4	16	5	20	5	22	6.3	26
22	220	4	19	5	24	5	26	6.3	33	6.3	36		
33	330	5	26	5	30	6.3	35	6.3	42				
47	470	5	32	6.3	40	6.3	44						
100	101	6.3	52									Case size φD (mm)	Rated ripple

Rated Ripple (mA rms) at 105°C 120Hz

●Frequency coefficient of rated ripple current

Frequency	50 Hz	120 Hz	300 Hz	1 kHz	10 kHz~
Coefficient	0.70	1.00	1.17	1.36	1.50

- Taping specifications are given in page 22.
- Recommended land size are given in page 23
- Please refer to page 3 for the minimum order quantity.