

ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

ET

Bi-Polarized, Wide Temperature Range

series



Bi-polarized

Anti-Solvent
Feature

- Bi-polarized series for operations over wide temperature range of $-55 \sim +105^{\circ}\text{C}$.
- Adapted to the RoHS directive (2002/95/EC).

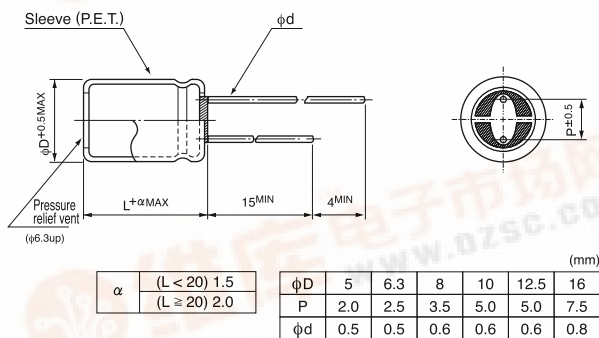
ET

High
Temperature
VP

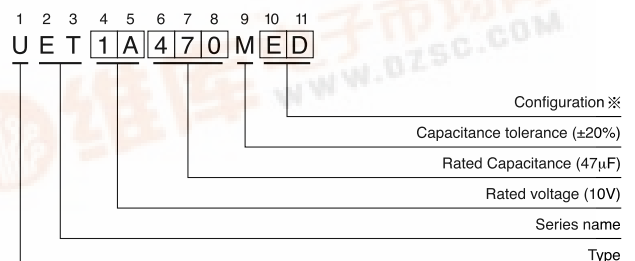
Specifications

Item	Performance Characteristics	
Category Temperature Range	$-55 \sim +105^{\circ}\text{C}$	
Rated Voltage Range	6.3 ~ 100V	
Rated Capacitance Range	0.47 ~ 1000 μF	
Capacitance Tolerance	$\pm 20\%$ at 120Hz, 20°C	
Leakage Current	After 5 minutes' application of rated voltage, leakage current is not more than 0.03CV or $3(\mu\text{A})$, whichever is greater.	
tan δ	Measurement frequency : 120Hz, Temperature : 20°C	
	Rated voltage (V)	6.3 10 16 25 35 50 63 100
Stability at Low Temperature	Measurement frequency : 120Hz	
	Rated voltage (V)	6.3 10 16 25 35 50 63 100
Endurance	Impedance ratio	Z- 25°C / Z- 20°C 4 3 2 2 2 2 2 2
	ZT / Z20 (MAX.)	Z- 40°C / Z- 20°C 8 6 4 4 3 3 3 3
Shelf Life	After 1000 hours' application of rated voltage at 105°C with the polarity inverted every 250 hours, capacitors meet the characteristic requirement listed at right.	
	Capacitance change	Within $\pm 20\%$ of initial value
Marking	tan δ	200% or less of initial specified value
	Leakage current	Initial specified value or less
After storing the capacitors under no load at 105°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.		
Printed with white color letter on black sleeve.		

Radial Lead Type



• Please refer to page 21 about the end seal configuration.

Type numbering system (Example : 10V 47 μF)

※ Configuration

ϕD	Pb-free leadwire Pb-free PET sleeve
5	DD
6.3	ED
8 · 10	PD
12.5 · 16	HD

Dimensions

Cap. (μF)	V Code	6.3 0J	10 1A	16 1C	25 1E	35 1V	50 1H	63 1J	100 2A
0.47	R47								
1	010								
2.2	2R2								
3.3	3R3								
4.7	4R7								
10	100								
22	220								
33	330	5 × 11	46	6.3 × 11	57	6.3 × 11	63	8 × 11.5	32
47	470	6.3 × 11	61	6.3 × 11	67	8 × 11.5	89	10 × 12.5	100
100	101	8 × 11.5	104	10 × 12.5	125	10 × 12.5	139	10 × 16	164
220	221	10 × 12.5	168	10 × 16	204	10 × 20	279	12.5 × 25	336
330	331	10 × 16	229	10 × 20	275	12.5 × 20	346	12.5 × 25	414
470	471	10 × 20	300	12.5 × 20	371	12.5 × 25	460	16 × 25	543
1000	102	12.5 × 25	550	16 × 25	668	16 × 25	746	16 × 31.5	871

Rated Ripple (mArms) at 105°C 120Hz

Frequency coefficient of rated ripple current

Cap. (μF)	Frequency	50 Hz	120 Hz	300 Hz	1 kHz	10 kHz ~
~ 47		0.75	1.00	1.35	1.57	2.00
100 ~ 470		0.80	1.00	1.23	1.34	1.50

Please refer to page 21, 22, 23 about the formed or taped product spec.