

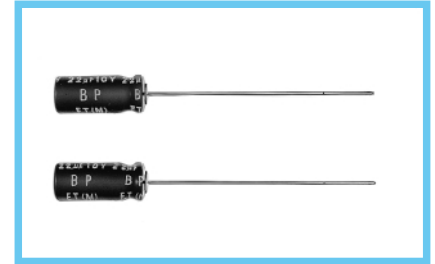
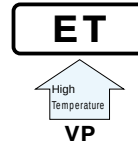
ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

ET series Bi-Polarized, Wide Temperature Range



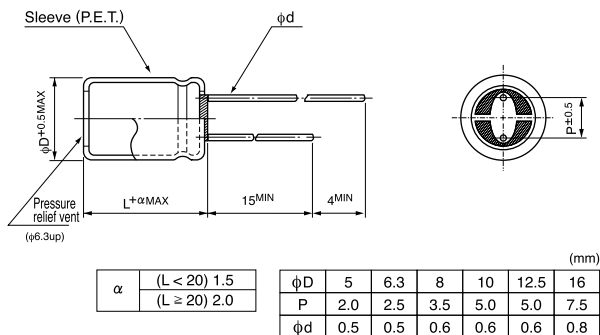
- Bi-polarized series for operations over wide temperature range of -55 ~ +105°C.
- Adapted to the RoHS directive (2002/95/EC).



Specifications

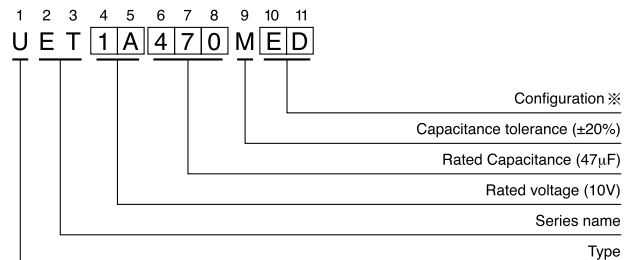
Item	Performance Characteristics										
Category Temperature Range	-55 ~ +105°C										
Rated Voltage Range	6.3 ~ 100V										
Rated Capacitance Range	0.47 ~ 1000μF										
Capacitance Tolerance	±20% at 120Hz, 20°C										
Leakage Current	After 5 minutes' application of rated voltage, leakage current is not more than 0.03CV or 3 (μA), whichever is greater.										
tan δ	Measurement frequency : 120Hz, Temperature : 20°C										
	Rated voltage (V)	6.3	10	16	25	35	50	63	100		
	tan δ (MAX.)	0.24	0.20	0.16	0.16	0.14	0.12	0.10	0.09		
Stability at Low Temperature	Measurement frequency : 120Hz										
	Rated voltage (V)			6.3	10	16	25	35	50	63	100
	Impedance ratio ZT / Z20 (MAX.)	Z-25°C / Z+20°C			4	3	2	2	2	2	2
		Z-40°C / Z+20°C			8	6	4	4	3	3	3
Endurance	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 ±20% of initial value		
							tan δ		200% or less of initial specified value		
							Leakage current		Initial specified value or less		
Shelf Life	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.										
Marking	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 47μF)



※ Configuration	
φ D	Pb-free leadwire Pb-free PET sleeve
5	DD
6.3	ED
8 · 10	PD
12.5 · 16	HD

Dimensions

V	6.3	10	16	25	35	50	63	100
Cap. (μF)	Code	0J	1A	1C	1E	1V	1H	2A
0.47	R47						5×11	8
1	010						5×11	12
2.2	2R2						5×11	18
3.3	3R3						5×11	22
4.7	4R7						5×11	26
10	100						5×11	29
22	220						5×11	31
33	330	5×11	46	6.3×11	57	6.3×11	63	8×11.5
47	470	6.3×11	61	6.3×11	67	8×11.5	89	10×12.5
100	101	8×11.5	104	10×12.5	125	10×12.5	139	10×16
220	221	10×12.5	168	10×16	204	10×20	279	12.5×25
330	331	10×16	229	10×20	275	12.5×25	346	12.5×25
470	471	10×20	300	12.5×20	371	12.5×25	460	16×25
1000	102	12.5×25	550	16×25	668	16×25	746	16×31.5

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
1000		0.85	1.00	1.10	1.13	1.15

Please refer to page 21, 22, 23 about the formed or taped product spec.
Please refer to page 3 for the minimum order quantity.

CAT.8100V