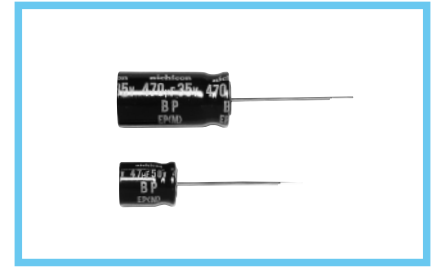
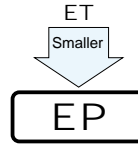


**EP** series  
Bi-Polarized, Wide Temperature Range



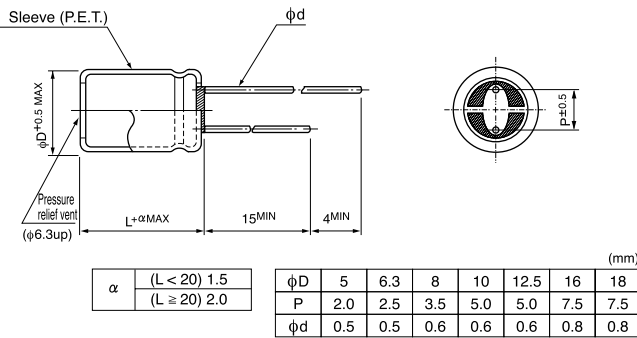
- 1 ~ 2 ranks smaller than ET series.
- Adapted to the RoHS directive (2002/95/EC).



## Specifications

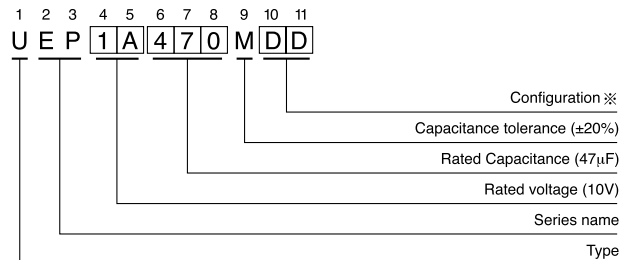
Item	Performance Characteristics									
Category Temperature Range	-55 ~ +105°C									
Rated Voltage Range	6.3 ~ 100V									
Rated Capacitance Range	0.47 ~ 6800μF									
Capacitance Tolerance	±20% at 120Hz, 20°C									
Leakage Current	After 5 minutes' application of rated voltage, leakage current 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	0.24	0.20	0.20	0.16	0.14	0.12	0.10	
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	10	8	6	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 requirements listed at right.							Capacitance change	Within ±25% of initial value (6.3~16V) Within ±20% of initial value (25~100V)	
								tan δ	150% 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
12.5~18	HD

## Dimensions

Cap. (μF)	V	Code	6.3		10		16		25		35		50		63		100		
			0J	1A	1C	1E	1V	1H	1J	2A									
0.47	R47													5×11	7			5×11	8
1	010													5×11	10			5×11	12
2.2	2R2													5×11	15			6.3×11	20
3.3	3R3													5×11	18	5×11	20	6.3×11	25
4.7	4R7													5×11	22	6.3×11	24	6.3×11	30
10	100				5×11	27	5×11	27	5×11	30	6.3×11	37	6.3×11	40	8×11.5	50			
22	220			5×11	37	5×11	40	6.3×11	46	6.3×11	51	8×11.5	63	8×11.5	68	10×16	97		
33	330	5×11	45	5×11	45	5×11	49	6.3×11	56	8×11.5	72	8×11.5	77	10×12.5	98	12.5×20	140		
47	470	5×11	54	5×11	54	6.3×11	67	6.3×11	67	8×11.5	86	10×12.5	105	10×16	130	12.5×20	170		
100	101	6.3×11	90	6.3×11	90	8×11.5	110	8×11.5	110	10×16	160	10×20	190	12.5×20	225	16×25	300		
220	221	8×11.5	150	8×11.5	150	10×12.5	195	10×16	215	12.5×20	290	12.5×25	340	16×25	405	18×35.5	510		
330	331	8×11.5	185	10×16	240	10×16	265	12.5×20	320	12.5×20	350	16×25	460	16×31.5	535				
470	471	10×12.5	260	10×16	290	10×20	345	12.5×20	380	12.5×25	465	16×31.5	590	18×35.5	680				
1000	102	10×20	460	12.5×20	510	12.5×25	605	16×25	670	16×31.5	805								
2200	222	12.5×25	820	16×25	910	16×31.5	1070	18×35.5	1140										
3300	332	16×25	1110	16×31.5	1200	18×35.5	1400												
4700	472	16×31.5	1430	18×35.5	1520														
6800	682	18×35.5	1830																

Rated Ripple (mArms) at 105°C 120Hz

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