chanhvinh.com

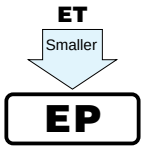
ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

EP Bi-Polarized, Wide Temperature Range series

Smaller | Bi-polarized | Anti-Solvent Feature

● 1 ~ 2 ranks smaller than ET series.





■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	2
	Z−40°C / Z+20°C	10	8	6	4	3	3	3	3

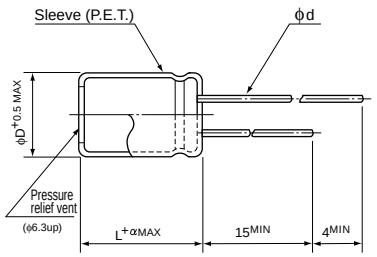
Endurance — After 1000 hours' application of rated voltage at 105°C, with the polarity inverted every 250 hours, capacitors meet the characteristic requirements listed at right.

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

Marking — Printed with white color letter on black sleeve.

■Radial Lead Type



α	(L < 20) 1.5
	(L ≥ 20) 2.0

(mm)

ϕD	5	6.3	8	10	12.5	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
ϕd	0.5	0.5	0.6	0.6	0.6	0.8	0.8

Type numbering system (Example : 10V 47μF)

1	2	3	4	5	6	7	8	9	10	11
U	E	P	1	A	4	7	0	M	D	D

Configuration ※
Capacitance tolerance (±20%)
Rated Capacitance (47μF)
Rated voltage (10V)
Series name
Type

※ Configuration

ϕ D	Pb-free leadwire Pb-free PET sleeve	Sn-Pb finished leadwire PVC sleeve (containing Pb)
5	DD	DH
6.3	ED	EH
8 · 10	PD	PH
12.5 ~ 18	HD	HH

※ Please contact to us if other configurations are required.

■Dimensions

ϕD×L (mm)

Cap. (μF) \ V	6.3		10		16		25		35		50		63		100	
Code	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	21	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												Rated ripple
6800	682	18×35.5	1830												Case size		

Rated Ripple (mA rms) at 105°C 120Hz

Please refer to page 19, 20, 21 about the formed or taped product spec.
Please refer to page 3 for the minimum order quantity.