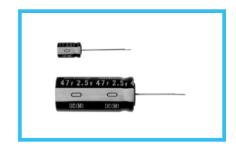


- Excellent in voltage holding property.
- Suitable for quick charge and discharge.
- Wide temperature range (− 25 to +70°C).
- Compliant to the RoHS directive (2002/95/EC).

Products which are scheduled to be discontinued. Not recommended for new designs

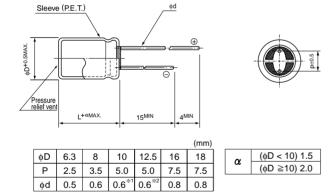




■ Specifications

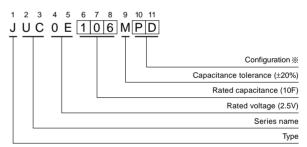
Item	Performance Characteristics						
Category Temperature Range	−25 to +70°C						
Rated Voltage Range	2.5V						
Rated Capacitance Range	0.47 to 47F See Note						
Capacitance Tolerance	±20% (20°C)						
Leakage Current	0.5C (mA) [C : Rated Capacitance(F)] (After 30 minutes' application of rated voltage, 2.5V)						
Stability at Low Temperature	Capacitance (-25°C) / Capacitance (+20°C) ×100 ≥ 70%						
ESR, DCR*	Refer to the list below (20°C). *DC internal resistance						
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 1000 hours at 70°C .	Capacitance change ESR Leakage current	Within ±30% of the initial capacitance value 300% or less than the initial specified value Less than or equal to the initial specified value				
Shelf Life	The specifications listed at right shall be met when the capacitors are restored to 20°C after storing the capacitors under no load for 1000 hours at 70°C.	Capacitance change ESR Leakage current	Within ±30% of the initial capacitance value 300% or less than the initial specified value Less than or equal to the initial specified value				
Marking	Printed with white color letter on black sleeve.						

Drawing



- % 1 In case ϕ 10 \times 40, lead dia ϕ d=0.8 % 2 In case L>25 for the ϕ 12.5 dia unit, lead dia ϕ d=0.8
- Please refer to page 20 for end seal configulation.

Type numbering system (Example: 2.5V 10F \phi10×40L)



Configuration							
φD	Pb-free lead finishing Pb-free PET sleeve						
6.3	ED						
8 • 10	PD						
12.5 to 18	HD						

Dimensions

Rated Voltage (Code)	Rated Capacitance (F)	Code	ESR (Ω) (at 1kHz)	DCR (Ω)	Case size φ D × L (mm)		
2.5V (0E)	0.47	474	7	11	6.3×9		
	1.0	105	2	5	8×11.5		
	2.2	225	2	2	8×20		
	3.3	335	1	1.5	10×20		
	4.7	475	0.5	1	12.5 × 20		
	10	106	0.2	0.5	12.5 × 31.5		
	10	106	0.2	0.5	10 × 40		
	22	226	0.2	0.3	16×31.5		
	33	336	0.1	0.2	18×31.5		
	47	476	0.1	0.2	18×40		

Note:

The capacitance calculated from discharge time (ΔT) with constant current (i) after 30minuite charge with rated voltage (2.5V).

The discharge current (i) is $0.01 \times F$ (rated capacitance).

A discharge time ($\Delta T)$ measured between 2V and 1V with constant current.

The capacitance calculated bellow.

Capacitance (F) = $i \times \Delta T$