# ELECTRIC DOUBLE LAYER CAPACITORS "EVerCAP®"

## nichicon



Radial Lead Type, High Capacitance

- High Capacitance type (2.7V).
- Higher capacitance than JUM.
- Wide temperature range (- 25 to +70°C).
- Compliant to the RoHS directive (2011/65/EU).

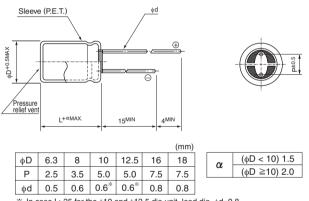




#### Specifications

Item	Performance Characteristics						
Category Temperature Range	- 25 to +70°C						
Rated Voltage	2.7V						
Rated Capacitance Range	1 to 82F See Note						
Capacitance Tolerance	±20% , 20°C						
Stability at Low Temperature	Capacitance (– 25°C) / Capacitance (+20°C) ×100 ≥ 70% ESR (– 25°C) / ESR (+20°C) ≤ 4						
ESR, DCR*	Refer to the table 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	Within ±30% of the initial capacitance value 300% or less than 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	Within ±30% of the initial capacitance value 300% or less than the initial specified value				
Humidity Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 500 hours at 40°C 90%RH.	Capacitance change ESR	Within ±30% of the initial capacitance value 300% or less than the initial specified value				
Marking	Printed with white color letter on black sleeve.						

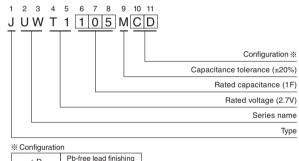
#### Drawing



 $\%\,$  In case L>25 for the  $\phi10$  and  $\phi12.5$  dia unit, lead dia  $\,\phi d{=}0.8$ 

• Please refer to page 20 about the end seal configuration.

### Type numbering system (Example : 2.7V 1F)



φD	Pb-free lead finishing Pb-free PET sleeve		
6.3	CD		
8 · 10	PD		
12.5 to 18	HD		

#### Dimensions

Rated Voltage ( Code )	Rated Capacitance (F)	Code	ESR (Ω) (at 1kHz)	DCR* Typical (Ω)	Case size ∳ D × L (mm)
2.7V (T1)	1.0	105	1.8	4	6.3 × 9
	1.5	155	1.2	2.5	8 × 11.5
	2.7	275	0.6	1.2	8 × 20
	3.3	335	0.5	1.1	10 × 12.5
	4.7	475	0.4	0.8	10 × 20
	6.8	685	0.3	0.7	12.5 × 20
	12	126	0.3	0.6	10 × 31.5
	22	226	0.2	0.4	12.5 × 31.5
	33	336	0.12	0.28	16 × 31.5
	47	476	0.1	0.22	18 × 31.5
	82	826	0.06	0.13	18 × 40

Note :

- The capacitance calculated from discharge time ( $\Delta T)$  with constant current ( i ) after 30minuite charge with rated voltage (2.7V).
- The discharge current ( i ) is  $0.01 \times \text{rated capacitance (F)}$ .

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

The capacitance calculated bellow.

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

\* The listed DCR value is typical and therefore not a guaranteed value.

