# ELECTRIC DOUBLE LAYER CAPACITORS "EVerCAP®"

## nichicon



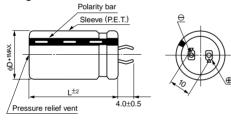
- Excellent in voltage holding property.
- Suitable for quick charge and discharge.
- Wild temperature range (- 25°C to + 60°C).
- Adapted to the RoHS directive (2002/95/EC).

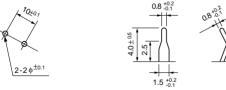


### Specifications

Item	Performance Characteristics								
Category Temperature Range	- 25 to +60°C								
Rated Voltage Range	2.5V								
Rated Capacitance Range	15 to 150F 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 2000 hours at 60°C.	Capacitance change	Within ±30% of initial value						
		ESR	300% or less of initial specified value						
		Leakage current	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	Capacitance change	Within ±30% of initial value						
		ESR	300% or less of initial specified value						
	for 2000 hours at 60°C.	Leakage current	Less than or equal to the initial specified value						
Marking	Printed with white color letter on black sleeve.								

#### Drawing





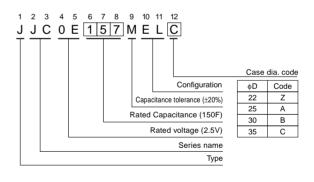
#### (PC board hole dimensions)



#### Dimensions

Rated Voltage ( code )	Cap. (F)	Cap. code	ESR(mΩ) (at 1kHz )	DCR(mΩ)	Case size $\phi D \times L$ (mm)			
					φ22 (Z)	¢25 (A)	φ 30 (B)	φ35 (C)
2.5V (0E)	15	156	120	500	22×20			
	18	186	120	400		25×20		
	22	226	90	300			30×20	
	27	276	90	250	22×30		30×20	
	33	336	80	200		25×30		35×20
	39	396	80	200	22×35	25×30		35×20
	47	476	70	160	22×40	25×35		
	56	566	70	140		25×40	30×30	
	68	686	60	110				35×30
	82	826	60	100		25×50	30×40	
	100	107	50	90				35×35
	120	127	50	70			30×50	35×40
	150	157	40	60				35×50

## Type numbering system (Example : 2.5V 150F)



#### Note :

The capacitance calculated from discharge time ( $\Delta T)$  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) =  $i \times \Delta T$ 

