

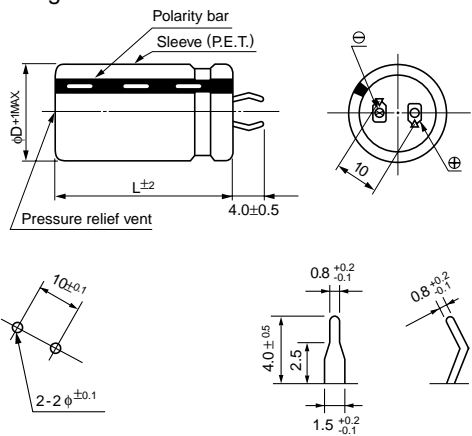
- Excellent in voltage holding property.
- Suitable for quick charge and discharge.
- Wide temperature range (−25°C to +60°C).
- Adapted to the RoHS directive (2002/95/EC).



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	After an application of DC voltage for 2000 hours at 60°C, capacitors meet the characteristic requirements listed at right.	<table border="1"> <tr> <td>Capacitance change</td> <td>Within ±30% of initial value</td> </tr> <tr> <td>ESR</td> <td>300% or less of initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>Initial specified value or less</td> </tr> </table>	Capacitance change	Within ±30% of initial value	ESR	300% or less of initial specified value	Leakage current	Initial specified value or less
	Capacitance change	Within ±30% of initial value						
	ESR	300% or less of initial specified value						
Leakage current	Initial specified value or less							
Shelf Life	After storing the capacitors under no load at 60°C for 2000 hours, they will meet the characteristic requirements listed at right.	<table border="1"> <tr> <td>Capacitance change</td> <td>Within ±30% of initial value</td> </tr> <tr> <td>ESR</td> <td>300% or less of initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>Initial specified value or less</td> </tr> </table>	Capacitance change	Within ±30% of initial value	ESR	300% or less of initial specified value	Leakage current	Initial specified value or less
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Marking	Printed with white color letter on black sleeve.							

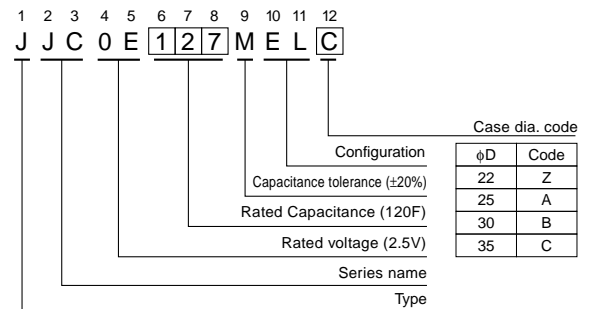
Drawing



(PC board hole dimensions)

(Terminal dimensions)

Type numbering system (Example : 2.5V 120F)



Dimensions

Rated Voltage (code)	Cap. (F)	Cap. code	ESR(mΩ) (at 1kHz)	DCR(mΩ)	Case size φD×L (mm)			
					φ22 (Z)	φ25 (A)	φ30 (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

Note :

To calculate capacitance, the capacitor must be charged at the rated voltage of 2.5V for 30 minutes. Measure the time of duration ΔT (sec.) it takes go from 2V to 1V when a constant current discharge of i (A) = 0.01 × nominal capacitance is carried out. It is then possible to calculate capacitance based on the calculation provided below.

$$\text{Capacitance (F)} = I \times \Delta T$$