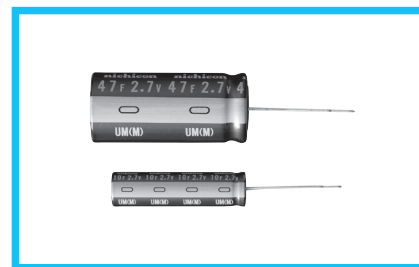


**JUM**

Radial Lead Type, Standard

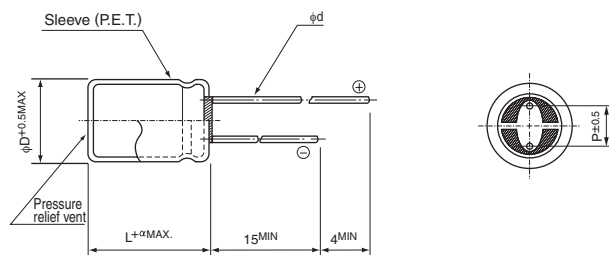
- Standard type (2.7V).
- Suitable for quick charge and discharge.
- Wide temperature range (– 25 to +70°C).
- Compliant to the RoHS directive (2011/65/EU).

**JUM**Higher  
Capacitance**JUW**

## Specifications

Item	Performance Characteristics		
Category Temperature Range	− 25 to +70°C		
Rated Voltage Range	2.7V		
Rated Capacitance Range	1 to 47F 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	Within ±30% of the initial capacitance value
		ESR	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	Within ±30% of the initial capacitance value
		ESR	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	Within ±30% of the initial capacitance value
		ESR	300% or less than the initial specified value
Marking	Printed with white color letter on black sleeve.		

## Drawing

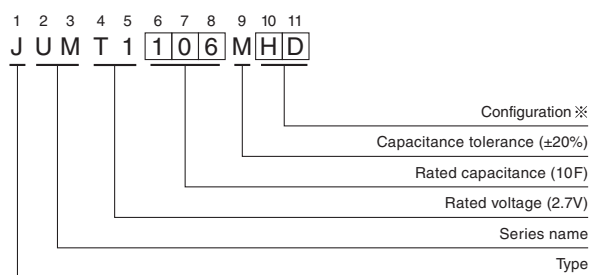


	8	10	12.5	16	18
φD	3.5	5.0	5.0	7.5	7.5
P	3.5	5.0	5.0	7.5	7.5
φd	0.6	0.6	0.6*	0.8	0.8

※ In case L>25 for the φ12.5 dia unit, lead dia φd=0.8

$\alpha$	(φD < 10) 1.5
	(φD ≥ 10) 2.0

## Type numbering system (Example : 2.7V 10F)



※ Configuration

φ D	Pb-free lead finishing Pb-free PET sleeve
8 · 10	PD
12.5 to 18	HD

- Please refer to page 20 for end seal configuration.

## Dimensions

Rated Voltage ( Code )	Rated Capacitance ( F )	Code	ESR (Ω) (at 1kHz)	DCR※ Typical (Ω)	Case size φ D × L (mm)
2.7V (T1)	1	105	1.8	3	8 × 11.5
	2.2	225	1.0	1.3	8 × 20
	3.3	335	0.6	1.0	10 × 20
	4.7	475	0.4	0.6	12.5 × 20
	10	106	0.2	0.25	12.5 × 31.5
	22	226	0.07	0.13	16 × 31.5
	33	336	0.06	0.08	18 × 31.5
	47	476	0.05	0.06	18 × 40

Note :

The capacitance calculated from discharge time (ΔT) with constant current ( i ) after 30minute charge with rated voltage (2.7V).

The discharge current ( i ) is 0.01 × rated capacitance (F).

The discharge time (ΔT) measured between 2V and 1V with constant current.

The capacitance calculated below.

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

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