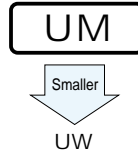


UM series Radial Lead Type, High Voltage

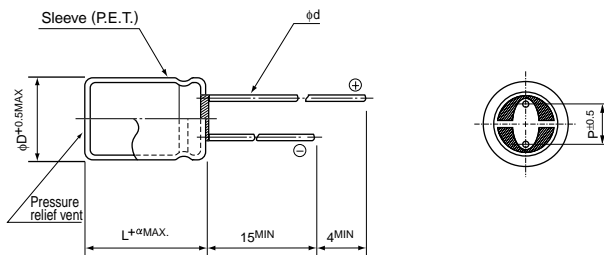
- High voltage type (2.7V).
- Suitable for quick charge and discharge.
- Wide temperature range (-25 to +70°C).
- Compliant to the RoHS directive (2002/95/EC).



Specifications

Item	Performance Characteristics	
Category Temperature Range	-25 to +70°C	
Rated Voltage Range	2.7V	
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, 2.7V)	
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	Capacitance change	Within ±30% of the initial capacitance value
	ESR	300% or less than the initial specified value
	Leakage current	Less than or equal to the initial specified value
Shelf Life	Capacitance change	Within ±30% of the initial capacitance value
	ESR	300% or less than the initial specified value
	Leakage current	Less than or equal to the initial specified value
Marking	Printed with white color letter on black sleeve.	

Drawing

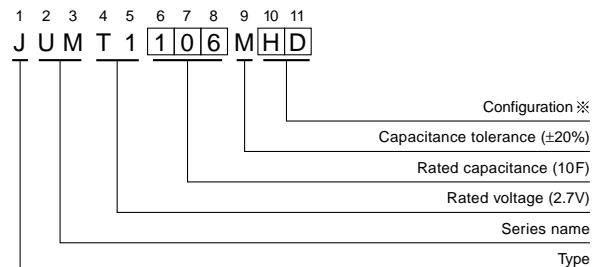


	(mm)					
φD	6.3	8	10	12.5	16	18
P	2.5	3.5	5.0	5.0	7.5	7.5
φd	0.5	0.6	0.6	0.6 [※]	0.8	0.8

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

α	(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
6.3	ED
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)	0.47	474	4	6	6.3 × 9
	1.0	105	2	3	8 × 11.5
	2.2	225	2	1.3	8 × 20
	3.3	335	1	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	0.2	0.13	16 × 31.5
	33	336	0.1	0.08	18 × 31.5
	47	476	0.1	0.06	18 × 40

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

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 bellow.

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