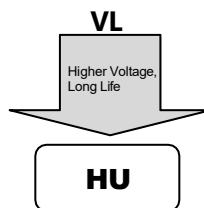


FEATURES

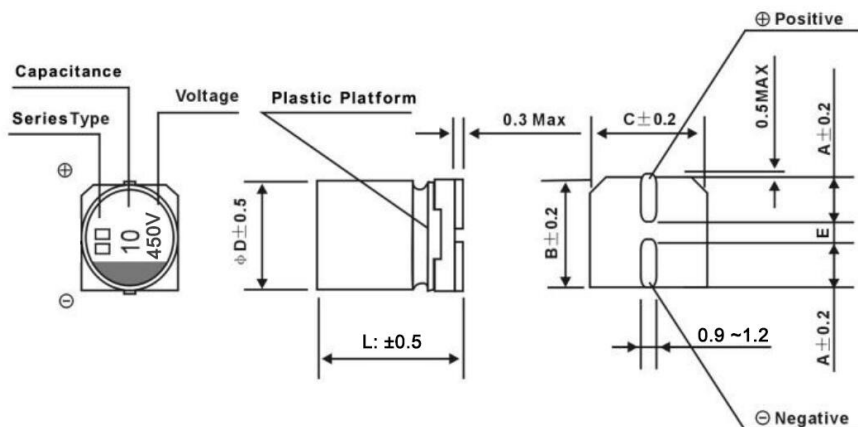
- High voltage, long life
- Operating with wide temperature range -40~+105°C
- Load life of 5000 hours
- Comply with the RoHS directive



SPECIFICATIONS

Items	Characteristics			
Operation Temperature Range	-40~ +105℃			
Voltage Range	160~ 450V			
Capacitance Range	2.2~ 47μF			
Capacitance Tolerance	±20% at 120Hz, 20℃			
Leakage Current	Leakage current ≤0.04CV + 100μA, whichever is greater (after 2 minutes application of rated voltage)			
Dissipation Factor (tan δ)	Measurement frequency: 120Hz, Temperature: 20℃			
	Rated Voltage (V)	160 ~ 250	400, 500	
	tan δ (max.)	0.15	0.20	
Stability at Low Temperature	Measurement frequency: 120Hz			
	Rated Voltage (V)	160 ~ 250	400, 500	
	Impedance Ratio	Z(-25℃) / Z(20℃)	3	6
	ZT/Z20 (max.)	Z(-40℃) / Z(20℃)	6	10
Load Life	After 5000 hours (< Ø8, 3000 hours) application of the rated voltage at 105℃, they meet the characteristics listed below			
	Capacitance Change	Within ±20% of initial value		
	Dissipation Factor	200% or less of initial specified value		
	Leakage Current	initial specified value or less		
Shelf Life	After leaving capacitors under no load at 105℃ for 1000 hours, they meet the specified value for load life characteristics listed above.			
Resistance to Soldering Heat	After reflow soldering and restored at room temperature, they meet the characteristics listed below.			
	Capacitance Change	Within ±10% of initial value		
	Dissipation Factor	initial specified value or less		
	Leakage Current	initial specified value or less		
Marking	Black print on the case top.			

DRAWING (Unit: mm)



● A pressure relief vent is attached to products over ØD=8



DIMENSIONS (Unit: mm)

∅D x L	6.3 x 10.5	8 x 10.5	8 x 12.5	10 x 12.5	12.5 x 13.5	12.5 x 16
A	2.6	3.0	3.2	3.2	4.7	4.7
B	6.6	8.3	8.3	10.3	13.0	13.0
C	6.6	8.3	8.3	10.3	13.0	13.0
E ± 0.2	1.9	3.1	3.1	4.6	4.6	4.6
L	10.5	10.5	12.5	12.5	13.5	16.0

DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV Code μF		160		200		250		400		450	
		2C		2D		2E		2G		2W	
1	010					6.3 x 10.5	23				
2.2	2R2	6.3 x 10.5	20	6.3 x 10.5	23	6.3 x 10.5	30	6.3 x 10.5	30	10 x 12.5	40
3.3	3R3	6.3 x 10.5	23	6.3 x 10.5	30	8 x 10.5	35	8 x 12.5 8 x 10.5 10 x 12.5	38 35 (40)	10 x 12.5	40
4.7	4R7	6.3 x 10.5	30	8 x 10.5	35	8 x 12.5	40	8 x 12.5 10 x 10.5 (10 x 12.5)	40 45 (50)	10 x 12.5	50
5.6	5R6							8 x 12.5	45		
6.8	6R8	8 x 10.5	35	8 x 10.5	40	10 x 12.5	45	10 x 12.5	50	12.5 x 13.5	65
8.2	8R2							10 x 12.5	75		
10	100	10 x 12.5	45	10 x 12.5	80	8 x 12.5 10 x 12.5	95 105	12.5 x 13.5 10 x 12.5	85 65	12.5 x 13.5	85
22	220	12.5 x 13.5	85	12.5 x 13.5	110	12.5 x 16	180				
33	330	12.5 x 13.5	95	12.5 x 16	220					Case size	Ripple current
47	470	12.5 x 16	260								

• Case size ∅D x L (mm), ripple current (mA rms) at 105°C, 120Hz

FREQUENCY COEFFICIENT OF ALLOWABLE RIPPLE CURRENT

Frequency	50Hz	120Hz	300Hz	1KHz	10KHz~
Coefficient	0.80	1.00	1.25	1.40	1.60



PN Structure

WHU	2C	2R2	M	063105	T	R
<u>Series</u>	<u>Rated Voltage</u>	<u>Capacitance</u>	<u>Capacitance Tolerance</u>	<u>Dimension</u>	<u>Packing</u>	<u>Pb</u>
	1.	2.	3.	4.	5.	6.

1. Rated Voltage

Code	2C	2D	2E	2G	2W
Voltage	160V	200V	250V	400V	450V

2. Capacitance

Code	010	2R2	3R3	4R7	100	220	330	470	101
Capacitance (μF)	1	2.2	3.3	4.7	10	22	33	47	100

3. Capacitance Tolerance

Code	K	L	M
Tolerance	±10%	±15%	±20%

4. Dimension

Code	063105	080105	100125	125160
Dimension (mm)	6.3×10.5	8×10.5	10×12.5	12.5×16

5. Packing

Code	T
Packing	Tape & Reel

6. Pb

Code	L	R
Pb	Leaded	RoHS

