

ALUMINUM ELECTROLYTIC CAPACITORS

ULV Chip Type, High Voltage.
Long Life.



- Chip Type, high voltage and long life.
- Load life of 10000 hours at +105°C
- Applicable to automatic mounting machine using carrier tape.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).
- AEC-Q200 compliant. Please contact us for details.

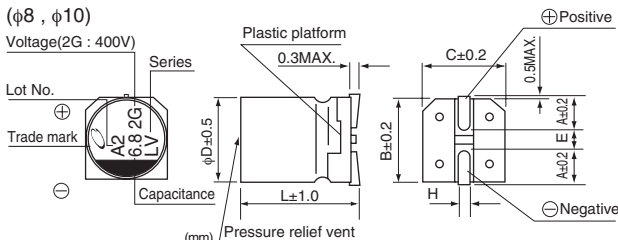
ULV ← Long Life → **ULR**



Specifications

Item	Performance Characteristics	
Category Temperature Range	-40 to +105°C	
Rated Voltage Range	160 to 500V	
Rated Capacitance Range	1.8 to 33μF	
Capacitance Tolerance	±20% at 120Hz, 20°C	
Leakage Current	Rated voltage (V)	160 to 450
	-	0.04CV+100(μA)max.(1 minute's at 20°C)
Tangent of loss angle (tan δ)	500	
	0.04CV+200(μA)max.(1 minute's at 20°C)	
	Measurement frequency : 120Hz at 20°C	
Stability at Low Temperature	Rated voltage (V)	160 200 250 400 450 500
	tan δ (MAX.)	0.20 0.20 0.25 0.25 0.30 0.30
Endurance	Measurement frequency: 120Hz	
	Rated voltage (V)	160 200 250 400 450 500
Shelf Life	Impedance ratio	Z-40°C / Z+20°C
	ZT / Z20 (MAX.)	6 6 10 10 15 15
Resistance to soldering heat	The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 10000 hours at 105°C.	
	Capacitance change	Within ±30% of the initial capacitance value
	tan δ	300% or less than the initial specified value
Marking	After storing the capacitors under no load at 105°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified values for the endurance characteristics listed above.	
	Capacitance change	Within ±10% of the initial capacitance value
	tan δ	Less than or equal to the initial specified value
Marking	The capacitors are kept on a hot plate for 30 seconds, which is maintained at 250°C and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the characteristic requirements listed at right when they are removed from the plate.	
	Leakage current	Less than or equal to the initial specified value
	Black print on the case top.	

Chip Type

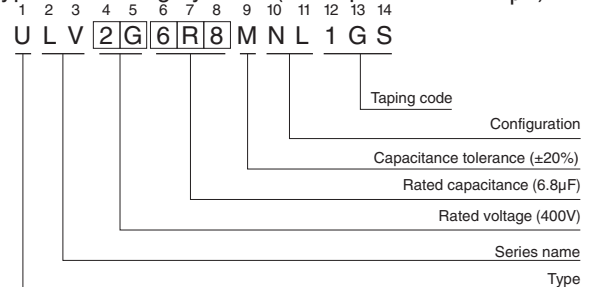


φD×L (mm)	8×10	10×10	10×13.5
A	2.9	3.2	3.2
B	8.3	10.3	10.3
C	8.3	10.3	10.3
E	3.1	4.5	4.5
L	10	10	13.5
H	0.8 to 1.1	0.8 to 1.1	0.8 to 1.1

Voltage

V	160	200	250	400	450	500
Code	2C	2D	2E	2G	2W	2H

Type numbering system (Example : 400V 6.8μF)



Dimensions

Cap.(μF)	Code	160		200		250		400		450		500	
		2C	2D	2D	2E	2G	2W	2W	2H				
1.8	1R8											8×10	25
3.3	3R3											10×10	40
3.9	3R9							8×10	35	8×10	25		
4.7	4R7											10×13.5	45
5.6	5R6												
6.8	6R8							10×10	50	10×10	40		
7.5	7R5											10×13.5	45
8.2	8R2					8×10	35						
10	100							10×13.5	55				
12	120			8×10	50								
15	150	8×10	50			10×10	50						
18	180			10×10	65	10×13.5	55						
22	220	10×10	65										
27	270			10×13.5	70								
33	330	10×13.5	70									Case size φD×L (mm)	Rated ripple

Rated ripple current (mA rms) at 105°C 120Hz

Frequency coefficient of rated ripple current

Frequency	50 Hz	120 Hz	300 Hz	1 kHz	10kHz or more
Coefficient	0.80	1.00	1.25	1.40	1.60

- Taping specifications are given in page 23.
- Recommended land size, soldering by reflow are given in page 18, 19.
- Please refer to page 3 for the minimum order quantity.