

ALUMINUM ELECTROLYTIC CAPACITORS

ULV

Chip Type, High Voltage.
Long Life.



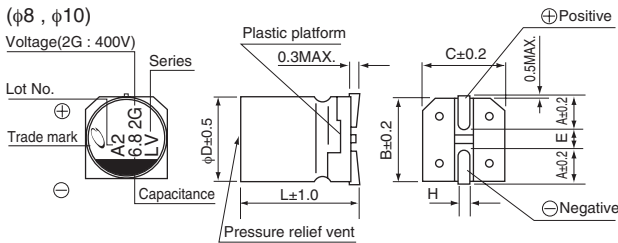
- Chip Type, high voltage and long life.
- Load life of 10000 hours at +105°C
- Applicable to automatic mounting machine using carrier tape.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).
- AEC-Q200 compliant. Please contact us for details.



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)						
Stability at Low Temperature	Measurement frequency : 120Hz at 20°C						
	Rated voltage (V)	160	200	250	400	450	500
Endurance	Measurement frequency: 120Hz						
	Rated voltage (V)	160	200	250	400	450	500
Shelf Life	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.						
	Impedance ratio ZT / Z20 (MAX.)	Z-40°C / Z+20°C	6	6	10	10	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					
Marking	Black print on the case top.						
	tan δ	300% or less than the initial specified value					
Leakage current	Less than or equal to the initial specified value						
	Capacitance change	Within ±10% of the initial capacitance value					
tan δ	Less than or equal to the initial specified value						
Leakage current	Less than or equal to the initial specified value						

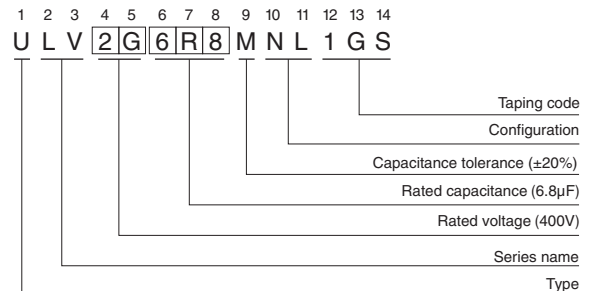
Chip Type



(mm)	$\phi 8 \times L$	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)



Frequency coefficient of rated ripple current

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

● Dimension table in next page.

ULV

■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size $\phi\text{D}\times\text{L}$ (mm)	$\tan \delta$	Leakage Current (μA) (at 20°C after 1 minute)	Rated Ripple (mArms) (105°C/120Hz)	Part Number
160 (2C)	15	8×10	0.20	196	50	ULV2C150MNL1GS
	22	10×10	0.20	240.8	65	ULV2C220MNL1GS
	33	10×13.5	0.20	311.2	70	ULV2C330MNL1GS
200 (2D)	12	8×10	0.20	196	50	ULV2D120MNL1GS
	18	10×10	0.20	244	65	ULV2D180MNL1GS
	27	10×13.5	0.20	316	70	ULV2D270MNL1GS
250 (2E)	8.2	8×10	0.25	182	35	ULV2E8R2MNL1GS
	15	10×10	0.25	250	50	ULV2E150MNL1GS
	18	10×13.5	0.25	280	55	ULV2E180MNL1GS
400 (2G)	3.9	8×10	0.25	162.4	35	ULV2G3R9MNL1GS
	6.8	10×10	0.25	208.8	50	ULV2G6R8MNL1GS
	10	10×13.5	0.25	260	55	ULV2G100MNL1GS
450 (2W)	3.3	8×10	0.30	159.4	25	ULV2W3R3MNL1GS
	5.6	10×10	0.30	200.8	40	ULV2W5R6MNL1GS
	7.5	10×13.5	0.30	235	45	ULV2W7R5MNL1GS
500 (2H)	1.8	8×10	0.30	236	25	ULV2H1R8MNL1GS
	3.3	10×10	0.30	266	40	ULV2H3R3MNL1GS
	4.7	10×13.5	0.30	294	45	ULV2H4R7MNL1GS

- Taping specifications are given in page 20.
- Recommended land size, soldering by reflow are given in page 16, 17.
- Please refer to page 3 for the minimum order quantity.