nichicon

ULT

Chip Type, High Voltage.
High Temperature Range.

For SMD | Long Life

- Chip type, high voltage and high temperature range.
- Load life of 2000 hours at +125°C.
- Applicable to automatic mounting machine using carrier tape.
- Compliant to the RoHS directive (2011/65/EU).

ULH ← Long Life | ULT | ↑ High Voltage | UUB

■Specifications

Item	Performance Characteristics
Category Temperature Range	−40 to +125°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): 160~450 / 500 — 0.04CV+100(μA)max.(1 minute's at 20°C) / 0.04CV+200(μA)max.(1 minute's at 20°C)
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz at 20°C

Rated voltage (V)	160	200	250	400	450	500
tan δ (MAX.)	0.20	0.20	0.25	0.25	0.30	0.30

Stability at Low Temperature — Measurement frequency : 120Hz

Rated voltage (V)		160	200	250	400	450	500
Impedance ratio ZT / Z20 (MAX.)	Z−40°C / Z+20°C	6	6	10	10	15	15

Endurance — The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 2000 hours at 125°C.

Capacitance change	Within ±30% of the initial capacitance value
tan δ	300% or less than the intial specified value
Leakage current	Less than or equal to the initial specified value

Shelf Life — After storing the capacitors under no load at 125°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.

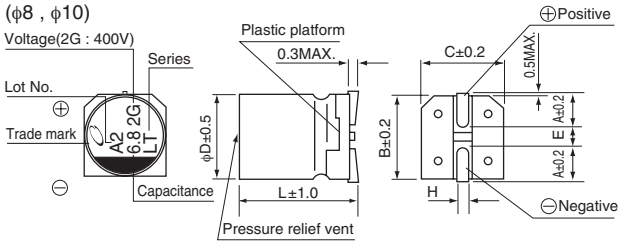
Resistance to soldering heat — The capacitors are kept on a hot plate for 30 seconds, which is maintained at 250°C and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the characteristic requirements listed at right when they are removed from the plate.

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

Marking — Black print on the case top.

■Chip Type

(φ8 , φ10)



(mm)

φD×L	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)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
U	L	T	2	G	6	R	8	M	N	L	1	G	S

Taping code
Configuration
Capacitance tolerance (±20%)
Rated capacitance (6.8μF)
Rated voltage (400V)
Series name
Type

■Dimensions

Cap.(μF) \ V	160		200		250		400		450		500	
Code	2C		2D		2E		2G		2W		2H	
1.8	1R8										8×10	20
3.3	3R3								8×10	20	10×10	35
3.9	3R9						8×10	30				
4.7	4R7										10×13.5	40
5.6	5R6								10×10	35		
6.8	6R8						10×10	45				
7.5	7R5								10×13.5	40		
8.2	8R2				8×10	30						
10	100						10×13.5	50				
12	120		8×10	45								
15	150	8×10	45		10×10	45						
18	180			10×10	60	10×13.5	50					
22	220	10×10	60									
27	270			10×13.5	65						Case size φD×L (mm)	Rated ripple
33	330	10×13.5	65									

Rated ripple current (mArms) at 125°C 120Hz

●Frequency coefficient of rated ripple current

Frequency	50 Hz	120 Hz	300 Hz	1 kHz	10 kHz or more
Coefficient	0.70	1.00	1.17	1.36	1.50

- 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.