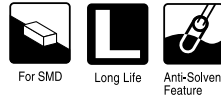
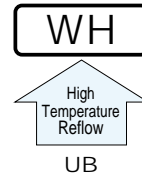


WH Chip Type, High Reliability
High Temperature (260°C) Reflow
series



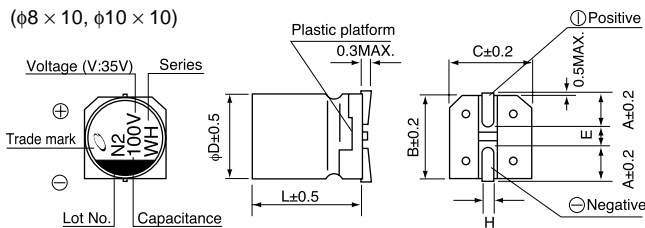
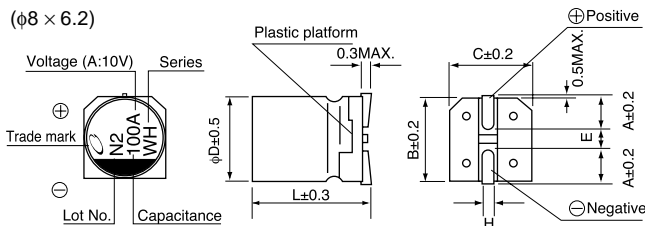
- Corresponding with 260°C peak reflow soldering
Recommended reflow condition : 260°C peak 5 sec. 230°C over 60 sec. 2 times
($\phi 8 \times 6.2$, $\phi 10 \times 10$: 1 time)
- Chip type high temperature range, for +125°C use.
- Applicable to automatic mounting machine using carrier tape.
- Adapted to the RoHS directive (2002/95/EC).



Specifications

Item	Performance Characteristics											
Category Temperature Range	-40 ~ +125°C											
Rated Voltage Range	10 ~ 50V											
Rated Capacitance Range	10 ~ 330 μ F											
Capacitance Tolerance	$\pm 20\%$ at 120Hz, 20°C											
Leakage Current	After 1 minute's application of rated voltage, leakage current is not more than 0.03CV or 4(μ A) , whichever is greater.											
tan δ	Measurement frequency : 120Hz, Temperature : 20°C											
	Rated voltage (V)	10	16	25	35	50						
Stability at Low Temperature	Measurement frequency : 120Hz											
	Impedance ratio ZT / Z20 (MAX.)	Z-40°C / Z+20°C	12	8	6	4	4					
Endurance	After 1000 hours' application of rated voltage at 125°C, capacitors meet the characteristic requirements listed at right.				<table border="1"> <tr> <td>Capacitance change</td> <td>Within $\pm 30\%$ of initial value</td> </tr> <tr> <td>tan δ</td> <td>300% or less of initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>Initial specified value or less</td> </tr> </table>		Capacitance change	Within $\pm 30\%$ of initial value	tan δ	300% or less of initial specified value	Leakage current	Initial specified value or less
	Capacitance change	Within $\pm 30\%$ of initial value										
tan δ	300% or less of initial specified value											
Leakage current	Initial specified value or less											
Shelf Life	After storing the capacitors under no load at 125°C for 1000 hours, and after performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they will meet the specified value for endurance characteristics listed above.											
Resistance to soldering heat	The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the characteristic requirements listed at right.				<table border="1"> <tr> <td>Capacitance change</td> <td>Within $\pm 10\%$ of initial value</td> </tr> <tr> <td>tan δ</td> <td>Initial specified value or less</td> </tr> <tr> <td>Leakage current</td> <td>Initial specified value or less</td> </tr> </table>		Capacitance change	Within $\pm 10\%$ of initial value	tan δ	Initial specified value or less	Leakage current	Initial specified value or less
	Capacitance change	Within $\pm 10\%$ of initial value										
tan δ	Initial specified value or less											
Leakage current	Initial specified value or less											
Marking	Black print on the case top.											

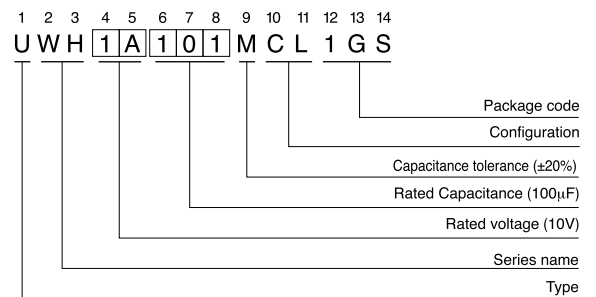
Chip Type



Voltage

V	10	16	25	35	50
Code	A	C	E	V	H

Type numbering system (Example : 10V 100 μ F)



$\phi D \times L$	8 \times 6.2	8 \times 10	10 \times 10 (mm)
A	3.3	2.9	3.2
B	8.3	8.3	10.3
C	8.3	8.3	10.3
E	2.3	3.1	4.5
L	6.2	10	10
H	0.5 ~ 0.8	0.8 ~ 1.1	0.8 ~ 1.1

● Dimension table in next page.

■ Dimensions

Cap.(μ F)	V Code	10		16		25		35		50	
		1A		1C		1E		1V		1H	
10	100									8×6.2	24
22	220									8×6.2	38
33	330							8×6.2	44	8×10	46
47	470					8×6.2	48	8×10	52	10×10	58
100	101	8×6.2	58	8×10	66	8×10	74	10×10	80		
220	221	8×10	90	10×10	102	10×10	116				
330	331	10×10	112							Case size ϕ D×L (mm)	Rated ripple

Rated Ripple (mArms) at 125°C 120Hz

● Frequency coefficient of rated ripple current

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

- Taping specifications are given in page 24.
- Recommended land size, soldering by reflow are given in page 25, 26.
- Please refer to page 3 for the minimum order quantity.