

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









- Corresponding with 260°C peak reflow soldering Recomended reflow condition: 260°C peak 5 sec. 230°C over 60 sec. 2 times $(\phi 8 \times 6.2, \phi 10 \times 10 : 1 \text{ time})$
- Chip type high temperature range, for +125°C use.
- Applicable to automatic mounting machine fed with carrier tape.
- Compliant to the RoHS directive (2011/65/EU).



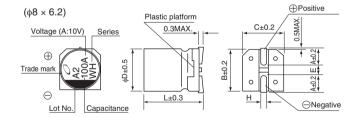


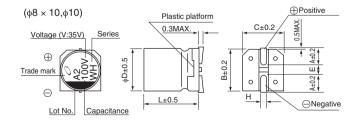


■Specifications

Item	Performance Characteristics									
Category Temperature Range	-40 to +125°C									
Rated Voltage Range	10 to 50V									
Rated Capacitance Range	10 to 330μF									
Capacitance Tolerance	±20% at 120Hz, 2	±20% at 120Hz, 20°C								
Leakage Current	After 1 minute's ap	After 1 minute's application of rated voltage, leakage current is not more than 0.03CV or 4(µA), whichever is greater.								
	Measurement frequency : 120Hz at 20°C									
Tangent of loss angle (tan δ)	Rated voltage (V)		16	25		35		50		
	tan δ (MAX.)	0.32	0.24	0.21		0.18	3	0.18		
	Measurement frequency: 120Hz									
Stability at Law Tamparatura	Rated voltage (V)		10	16	2	25	35	50		
Stability at Low Temperature	Impedance ratio ZT / Z20 (MAX.)	Z-40°C / Z+20°	°C 12	8	6	6	4	4		
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 1000 hours at 125°C. Capacitance change Within ±30% of the initial capacitance tan δ 300% or less than the initial specified Leakage current Less than or equal to the initial specified							·		
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. The capacitors shall meet the characteristic requirements listed at right when they are removed from the plate and restored to 20° C. Capacitance change Within $\pm 10\%$ of the initial capacitance value $\tan \delta$ Less than or equal to the initial specified value and restored to 20° C.									
Marking	Black print on the	case top.								

■ Chip Type

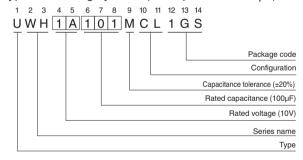




Voltage

V	10	16	25	35	50
Code	Α	С	Е	V	Н

Type numbering system (Example : $10V \ 100 \mu F$)



			(mm)		
φD×L	8×6.2	8 × 10	10×10		
Α	3.3	2.9	3.2		
В	8.3	8.3	10.3		
С	8.3	8.3	10.3		
E	2.3	3.1	4.5		
L	6.2	10	10		
Н	0.5 to 0.8	0.8 to 1.1	0.8 to 1.1		



■ Dimensions

	V	1	0	10	6	2	5	3	5	50)
Cap.(µF)	Cap.(μF) Code 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			Case size	Rated
330	331	10 × 10	112				 			$\phi D \times L (mm)$	ripple

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.