

# SURFACE MOUNT ALUMINUM ELECTROLYTIC CAPACITORS

## CW Chip type, High Reliability Series

- Chip type, high temperature range, for +150°C use
- Applicable to automatic insertion machine using carrier tape
- Complied to the RoHS directive



CF → CW  
High Temp.



Item	Characteristics										
Operating temperature range	-40 ~ +150°C										
Leakage current	$I = 0.03CV$ or $4\mu A$ whichever is greater (after 2 minutes)										
Capacitance tolerance	$\pm 20\%$ at 120Hz, 20°C										
Dissipation factor max. (at 120Hz, 20°C)	WV	10	16	25	35	50					
	$\tan\delta$	0.30	0.20	0.16	0.14	0.14					
Low temperature characteristics (Impedance ratio at 120Hz)	WV	10	16	25	35	50					
	$Z-40^\circ C/Z+20^\circ C$	12	10	8	6	6					
Load life (after application of the rated voltage for 1000 hours at 150°C)	Leakage current	Less than specified value									
	Capacitance change	Within $\pm 30\%$ of initial value									
	$\tan\delta$	Less than 300% of the specified value									
Shelf life (at 150°C)	After 1000 hours no load test, leakage current, capacitance and $\tan\delta$ are same as load life value. The measurement shall be performed at 20°C by the KS C 6035 clause 5.4.										
Resistance to soldering heat	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them at 250°C for 10 seconds.										
	Leakage current	Less than specified value									
	Capacitance change	Within $\pm 10\%$ of initial value									
	$\tan\delta$	Less than specified value									

### ● DRAWING (See page 59)

Unit : mm

-Series code of CW is "W"

### ● DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

$\mu F$	WV	10	16	25	35	50
33						10×10 75
47					10×10 90	10×10 90
68					10×10 105	12.5×13.5 132
100				10×10 160	10×10 132	12.5×13.5 167
220		10×10 163	10×10 200	10×10 200	12.5×13.5 249	
330	10×10 183	10×10 200	12.5×13.5 304			
470	10×10 218	12.5×13.5 304				
1000	12.5×13.5 405					

Ripple current (mA rms) at 150°C, 120Hz  
Case size ØD × L(mm)

### ● FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

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