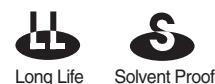


# SURFACE MOUNT ALUMINUM ELECTROLYTIC CAPACITORS


**CF**

Chip type, High Temperature, Long Life,  
Series



- Chip type, high temperature range, for 130°C use
- For ECU
- Application to automatic insertion machine using carrier
- Complied to the RoHS directive

**UC** → **CF**  
Wide temp  
Long life



Item	Characteristics								
Operating temperature range	-40 ~ +130°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)	Rated Voltage(V)	10	16	25	35	50			
	$\tan\delta$	0.32	0.24	0.21	0.18	0.18			
Low temperature characteristics (Impedance ratio at 120Hz)	WV	10	16	25	35	50			
	Z-25°C/Z+20°C	8	6	4	4	4			
	Z-40°C/Z+20°C	12	11	8	6	6			
Load life (after application of the rated voltage for 5000 hours at 130°C)	Leakage current	Less than specified value							
	Capacitance change	Within $\pm 30\%$ of initial value							
	$\tan\delta$	Less than 300% of the specified value							
	$\varnothing D$	$\varnothing 8 \times 6.2\text{mmL}$		$\varnothing 8 \times 10\text{mmL}$	$\varnothing D \geq 10$				
Shelf life (at 130°C)	Life time	2000 hours		3000 hours	5000 hours				
	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 IEC 60384 - 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 CF is "H"

## ● DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

$\mu F$	WV	10		16		25		35		50	
22										$8 \times 6.2$	28
33										$8 \times 6.2$	41
47										$10 \times 10$	90
68			$8 \times 6.2$	50	$8 \times 6.2$	45	$10 \times 10$	105	$12.5 \times 13.5$	132	
100	$8 \times 6.2$	48	$8 \times 10$	66	$10 \times 10$	163	$10 \times 10$	132	$12.5 \times 13.5$	167	
220	$8 \times 10$	90	$10 \times 10$	163	$10 \times 10$	200	$12.5 \times 13.5$	249			
330	$10 \times 10$	125	$10 \times 10$	200	$12.5 \times 13.5$	304					
470	$10 \times 10$	150	$12.5 \times 13.5$	304							
1000	$12.5 \times 13.5$	405									

↑ Ripple current (mA rms) at 130°C, 120Hz  
Case size  $\varnothing D \times L$ (mm)

## ● FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

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