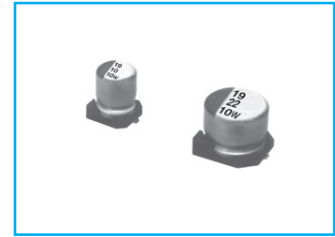
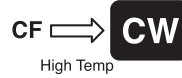


## CW Chip type, High Reliability Series

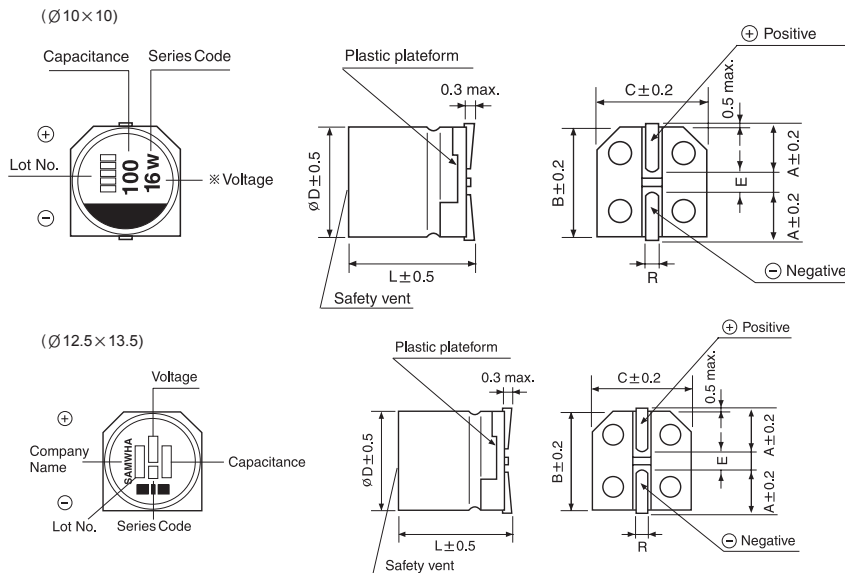
- Chip type, high temperature range, for + 150°C use
- Applicable to automatic insertion machine using carrier tape
- Complied to the RoHS directive



Item	Characteristics					
Operating temperature range	-40 ~ +150°C					
Leakage current	I = 0.03CV or 4μA whichever is greater (after 2 minutes)					
Capacitance tolerance	±20% at 120Hz, 20°C					
Dissipation factor max. (at 120Hz, 20°C)	WV	10	16	25	35	50
	tanδ	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°C/Z+20°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 ±30% of initial value				
	tanδ	Less than 300% of the specified value				
Shelf life (at 150°C)	After 1000 hours no load test, leakage current, capacitance and tanδ are same as load life value.					
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 30 seconds.					
	Leakage current	Less than specified value				
	Capacitance change	Within ±10% of initial value				
	tanδ	Less than specified value				

### DRAWING

Unit : mm



$\varnothing D$	A	B	C	E	R
10×10	3.2	10.3	10.3	4.5	0.8~1.1
12.5×13.5	4.6	12.8	12.8	4.5	1.1~1.4

### DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

$\mu F$	WV		10		16		25		35		50	
	33									10×10	90	10×10
47									10×10	105	10×10	90
68									10×10	132	12.5×13.5	132
100							10×10	160	10×10	132	12.5×13.5	167
220				10×10	163	10×10	200	12.5×13.5	304	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  $\varnothing D \times L$ (mm)