

# SURFACE MOUNT ALUMINUM ELECTROLYTIC CAPACITORS

## RC Chip type, Wide Temperature Range Series



SC → RC  
Wide temp.

- Wide operating temperature range of -55 ~ +105°C
- Designed for surface mounting on high density PC board
- Applicable to automatic insertion machine using carrier tape
- Complied to the RoHS directive

Item	Characteristics												
Operating temperature range	-55 ~ +105°C												
Leakage current max.	$I = 0.01CV$ or $3\mu A$ whichever is greater (after 2 minutes)												
Capacitance tolerance	$\pm 20\%$ at 120Hz, 20°C												
Dissipation factor max. (at 120Hz, 20°C)	WV	6.3	10	16	25	35	50						
	$\tan\delta$	0.27	0.23	0.19	0.15	0.13	0.11						
Low temperature characteristics (Impedance ratio at 120Hz)	WV	6.3	10	16	25	35	50						
	Z-25°C/Z+20°C	3	3	2	2	2	2						
	Z-40°C/Z+20°C	8	5	4	3	3	3						
Load life (after application of the rated voltage for 1000 hours at 105°C)	Leakage current	Less than specified value											
	Capacitance change	Within $\pm 25\%$ of initial value											
	$\tan\delta$	Less than 200% of specified value											
Shelf life (at 105°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 6503 clause 5.1.												
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 $\pm 10\%$ of initial value											
	$\tan\delta$	Less than specified value											

### DRAWING (See page 53)

Unit : mm

-Series code of RC is "F"

### DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

$\mu F \backslash WV$	6.3	10	16	25	35	50	
0.1							$4 \times 5.3$ 2.3
0.22							$4 \times 5.3$ 3.4
0.33							$4 \times 5.3$ 4.1
0.47							$4 \times 5.3$ 4.9
1.0							$4 \times 5.3$ 7.2
2.2							$4 \times 5.3$ 10.7
3.3							$4 \times 5.3$ 13.1
4.7					$4 \times 5.3$	13	$4 \times 5.3$ 14
10			$4 \times 5.3$	17	$5 \times 5.3$	23	$5 \times 5.3$ 24
22	$4 \times 5.3$ 22	$5 \times 5.3$ 27	$5 \times 5.3$ 30	$6.3 \times 5.3$ 39	$6.3 \times 5.3$ 42	$6.3 \times 5.3$ 45	
33	$5 \times 5.3$ 31	$5 \times 5.3$ 33	$6.3 \times 5.3$ 43	$6.3 \times 5.3$ 48	$6.3 \times 5.8$ 52	$6.3 \times 7.7$ 60	
47	$5 \times 5.3$ 36	$6.3 \times 5.3$ 46	$6.3 \times 5.3$ 51	$6.3 \times 5.8$ 59	$6.3 \times 5.8$ 63	$6.3 \times 7.7$ 63	
100	$6.3 \times 5.3$ 50	$6.3 \times 5.8$ 64	$6.3 \times 5.8$ 64	$6.3 \times 7.7$ 91	$8 \times 10$ 296	$10 \times 10$ 295	
220	$6.3 \times 7.7$ 86	$6.3 \times 7.7$ 105	$6.3 \times 7.7$ 105	$8 \times 10$ 340	$10 \times 10$ 435		
330	$6.3 \times 7.7$ 105	$8 \times 10$ 305	$8 \times 10$ 340	$10 \times 10$ 360			
470	$8 \times 10$ 330	$10 \times 10$ 340	$10 \times 10$ 470				
1000	$10 \times 10$ 475						

Ripple current (mA rms) at 105°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