

# 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
- AEC-Q200 compliant : Please contact us for more details.

Item	Characteristics												
<b>Operating temperature range</b>	-55 ~ +105°C												
<b>Leakage current max.</b>	$I = 0.01CV$ or $3\mu A$ whichever is greater (after 2 minutes)												
<b>Capacitance tolerance</b>	$\pm 20\%$ at 120Hz, 20°C												
<b>Dissipation factor max. (at 120Hz, 20°C)</b>	WV	6.3	10	16	25	35	50						
	$\tan\delta$	0.27	0.23	0.19	0.15	0.13	0.11						
<b>Low temperature characteristics (Impedance ratio at 120Hz)</b>	WV	6.3	10	16	25	35	50						
	Z-25°C/Z+20°C	3	3	2	2	2	2						
	Z-55°C/Z+20°C	8	5	4	3	3	3						
<b>Load life (after application of the rated voltage for 1000 hours at 105°C)</b>	Leakage current	Less than specified value											
	Capacitance change	Within $\pm 25\%$ of initial value											
	$\tan\delta$	Less than 200% of specified value											
<b>Shelf life (at 105°C)</b>	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												
<b>Resistance to soldering heat</b>	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 56)

-Series code of RC is "F"

### ● DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

$\mu F \backslash WV$	6.3	10	16	25	35	50	
1.0							4×5.3 7
2.2							4×5.3 11
3.3							4×5.3 13
4.7					4×5.3 13	4×5.3 14	5×5.3 18
10			4×5.3 17	5×5.3 23	5×5.3 24	6.3×5.3 31	
22	4×5.3 22	5×5.3 27	5×5.3 30	6.3×5.3 39	6.3×5.3 42	6.3×5.8 45	
33	5×5.3 31	5×5.3 33	6.3×5.3 43	6.3×5.3 48	6.3×5.8 52	6.3×7.7 60	
47	5×5.3 36	6.3×5.3 46	6.3×5.3 51	6.3×5.8 59	6.3×5.8 63	6.3×7.7 63	
100	6.3×5.3 50	6.3×5.8 64	6.3×5.8 64	6.3×7.7 91	8×10 296	10×10 295	
220	6.3×7.7 86	6.3×7.7 105	6.3×7.7 105	8×10 340	10×10 435		
330	6.3×7.7 105	8×10 305	8×10 340	10×10 360			
470	8×10 330	10×10 340	10×10 470				
1000	10×10 475						

Ripple current (mA rms) at 105°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