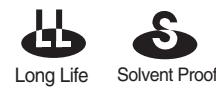


# CA

Chip type, Long Life Series



JM → CA  
Long life



- Chip type, long life capacitance in large case sizes
- Chip type with load life of 5000 hours at 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	$\text{ØD} \leq 6.3$ -40 ~ +105°C				$\text{ØD} \geq 8$ -55 ~ +105°C								
Leakage current max.	$I = 0.01\text{CV}$ or $3\mu\text{A}$ 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						
	$\tan\delta$	0.28	0.24	0.2	0.16	0.13	0.12						
Low temperature characteristics (Impedance ratio at 120Hz)	WV	6.3	10	16	25	35	50						
	Z-25°C/Z+20°C	2	2	2	3	3	3						
	Z-55°C/Z+20°C	14	12	8	6	4	4						
	Z-40°C/Z+20°C	14	12	8	6	4	4						
Load life (after application of the rated voltage for 5000 hours at 105°C)	Leakage current	Less than specified value											
	Capacitance change	Within $\pm 30\%$ of initial value											
	$\tan\delta$	Less than 300% 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 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 62)

-Series code of CA is "A"

● DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

$\mu\text{F}$	WV	6.3	10	16	25	35	50
10							
22					6.3×5.8	38	6.3×5.8
33				6.3×5.8	40	6.3×5.8	48
47		6.3×5.8	46	6.3×5.8	50	6.3×7.7	63
100	6.3×5.8	60	6.3×7.7	81	6.3×7.7	81	8×10
220	6.3×7.7	101	8×10	141	10×10	216	10×10
330	8×10	160	10×10	238	10×10	238	10×10
470	10×10	254	10×10	254	10×10	254	
1000	10×10	313					

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