

# CD series

- Chip type, Low impedance temperature range up to -55~+105°C.
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine using carrier tape.
- RoHS Compliance.
- -55~+105°C低阻抗晶片式電容器。
- 專為高密度PC板表面貼裝而設計。
- 適合自動貼裝機使用。



## SPECIFICATIONS

Items 項目	Characteristics 特性														
Capacitance Tolerance 靜電容量誤差	$\pm 20\%$ (120Hz, 20°C)														
Operating Temperature Range 適用溫度範圍	-55 ~ +105°C					-40 ~ +105°C									
Rated Voltage Range 工作電壓範圍	6.3 ~ 63V					80 ~ 100V									
Rated Capacitance Range 適用容量範圍	1 ~ 1500 $\mu$ F														
Leakage Current 洩漏電流	$I \leq 0.01CV$ or $3\mu A$ , which is greater. (After 2 minutes application of rated voltage)														
Dissipation Factor 散逸因素 ( $\tan \delta$ )	Measurement Frequency: 120Hz. Temperature: 20°C														
	Rated Voltage (V)	6.3	10	16	25	35	50	63	80	100					
	$\tan \delta$ (Max)	0.30	0.26	0.22	0.16	0.13	0.10	0.08	0.08	0.07					
Low Temperature Stability 低溫特性	Measurement Frequency: 120Hz.														
Impedance Ratio (Max) 阻抗比率 (最大值)	Rated Voltage (V)	6.3	10	16	25	35	50	63	80	100					
	Z (-25°C) / Z (20°C)	4	3	2	2	2	2	2	2	2					
	Z (-40°C) / Z (20°C)	8	5	4	3	3	3	3	3	3					
Load Life 負荷壽命	3000hours, with application of working voltage at 105°C ( $\phi D=4$ , 6.3mm, 2000 hours; $\phi D=8$ , 10mm, 3000 hours)														
	Capacitance Change	Within $\pm 30\%$ of Initial Value													
	$\tan \delta$	300% or less of Initial Specified Value													
	Leakage Current	Initial Specified Value or less													
Shelf Life 放置壽命	1,000hours, no voltage applied, at 105°C. After Test : UR to be applied for 30 minutes, 24 to 48hours before measurement. They meet the specified value for endurance characteristics listed above.														
Resistance to Soldering Heat 焊錫耐熱性	The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds. After removing from the hot plate and restored at room temperature they meet the characteristics requirements listed at right.	Capacitance Change	Within $\pm 10\%$ of Initial Value												
		$\tan \delta$	Initial Specified Value												
		Leakage Current	Initial Specified Value or less												
Marking 標識	Black print on the case top														

## Frequency Coefficient of Permissible Ripple Current

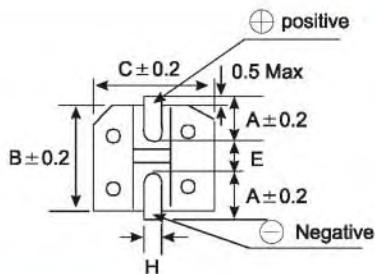
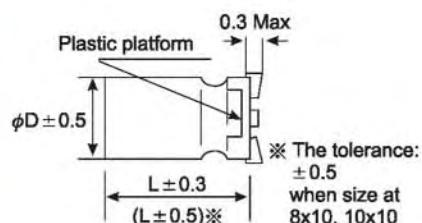
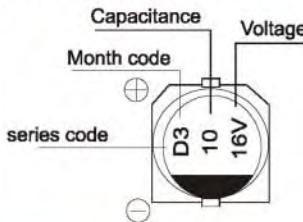
Frequency (Hz)	50	60	120	1K	$\geq 10K$
Coefficient	0.64	0.64	0.80	0.93	1.00

CD

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## DIMENSIONS (mm)

### ■ Chip Type



φDxL	4x5.4	5x5.4	6.3x5.4	6.3x7.7	8x6.2	8x10	10x10	(mm)
A	1.8	2.1	2.4	2.4	3.3	2.9	3.2	
B	4.3	5.3	6.6	6.6	8.3	8.3	10.3	
C	4.3	5.3	6.6	6.6	8.3	8.3	10.3	
E	1.0	1.3	2.2	2.2	2.3	3.1	4.5	
L	5.4	5.4	5.4	7.7	6.2	10	10	
H	0.5~0.8	0.5~0.8	0.5~0.8	0.5~0.8	0.5~0.8	0.8~1.1	0.8~1.1	

## STANDARD RATINGS

DxL(mm); R.C. (mA rms) at 105°C, 100KHz, IMP: ( $\Omega$  max) at 20°C 100KHz.

Cap ( $\mu$ F)	WV (V)	6.3 (0J)			10 (1A)			16 (1C)			25 (1E)			35 (1V)			
		Item	D x L	R.C.	IMP	D x L	R.C.	IMP									
4.7															4x5.4	80	1.35
10															5x5.4	150	0.80
22		4x5.4	80	1.35	4x5.4	80	1.35	5x5.4	150	0.80	5x5.4	150	0.80	6.3x5.4	230	0.44	
33		4x5.4	80	1.35	5x5.4	150	0.80	5x5.4	150	0.80	6.3x5.4	230	0.44	6.3x5.4	230	0.44	
47		5x5.4	150	0.80	5x5.4	150	0.80	5x5.4	150	0.80	6.3x5.4	230	0.44	6.3x5.4	230	0.44	
100		6.3x5.4	230	0.44	6.3x5.4	230	0.44	6.3x5.4	230	0.44	6.3x7.7	280	0.36	8x6.2	300	0.32	
150		6.3x5.4	230	0.44	6.3x5.4	230	0.44	6.3x7.7	280	0.36	8x10	450	0.17	8x10	450	0.17	
220		6.3x7.7	280	0.36	6.3x7.7	280	0.36	6.3x7.7	280	0.36	8x10	450	0.17	10x10	670	0.09	
330		8x10	450	0.17	8x10	450	0.17	8x10	450	0.17	8x10	450	0.17				
470		8x10	450	0.17	8x10	450	0.17	8x10	450	0.17	10x10	670	0.09				
680		8x10	450	0.17	10x10	670	0.09	10x10	670	0.09							
1000		8x10	450	0.17	10x10	670	0.09										
1500		10x10	670	0.09													

Cap ( $\mu$ F)	WV (V)	50 (1H)			63 (1J)			80 (1K)			100 (2A)			
		Item	D x L	R.C.	IMP	D x L	R.C.	IMP	D x L	R.C.	IMP	D x L	R.C.	IMP
1		4x5.4	60	2.90										
2.2		4x5.4	60	2.90										
3.3		4x5.4	60	2.90	5x5.4	85	1.52	5x5.4	60	4.8				
4.7		5x5.4	85	1.52	5x5.4	85	1.52	6.3x5.4	60	4.8				
10		6.3x5.4	165	0.88	6.3x5.4	165	0.88	8x6.2	60	2.4	8x10	130	1.88	
22		6.3x5.4	165	0.88	6.3x7.7	185	0.68	8x10	130	1.88	10x10	200	0.90	
33		6.3x7.7	185	0.68	8x10	369	0.34	10x10	200	0.90	10x10	200	0.90	
47		6.3x7.7	185	0.68	8x10	369	0.34	10x10	200	0.90	10x10	200	0.90	
68		8x10	369	0.34	10x10	553	0.18	10x10	200	0.90				
100		8x10	369	0.34	10x10	553	0.18							
150		10x10	553	0.18	10x10	553	0.18							