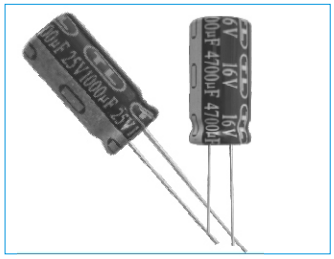
CD113 Series



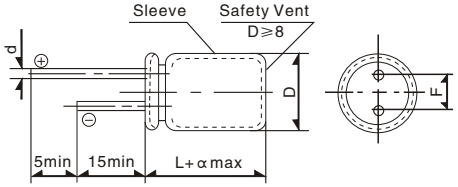
- Stable performance,low leakage acurrent,and reliability, suited for use in high stable circuits
- Load life of 2000 hours at 85℃

CD110 (Low leakage) ⇨ **CD113** ⇨ CD113H (Wid temp.)

Specifications

Item	Characteristics
Operating Temperature Range	–40℃ ~ +85℃
Rated Voltage Range	6.3V~100V
Nominal Capacitance Range	0.1 μ F~4700 μ F
Capacitance Tolerance	M (± 20%) (20℃,120Hz)
Leakage Current	I≤0.002CRUR or1(μ A),whichever is greater. CR:Nominal capacitance (μ F) UR:Rated voltage(V) (20℃, after 2 minutes)
Dissipation Factor (Max)	UR (V): 6.3 / 10 / 16 / 25 / 35 / 50 / 63 / 100 tan δ: 0.24 / 0.20 / 0.16 / 0.14 / 0.12 / 0.10 / 0.09 / 0.08 0.02 is added to every 1000 μ F increase over 1000 μ F. (20℃,120Hz)
Low Temperature Stability (Impedance Ratio)	UR (V): 6.3 / 10~16 / 25~100 Z(–40℃) / Z(+20℃): 7 / 5 / 4 (120Hz)
Load Life	After 2000 hours' application of rated voltage with rated ripple current at 85℃,the capacitors shall meet the following requirement: Capacitance change: Within ± 20% of the initial value . Dissipation factor: Not more than 200% of the initial specified value. Leakage current: Not more than the initial specified value.
Shelf Life	After storage for 1000 hours at +85℃,the capacitors shall meet the requirement of load life above .
Rated Ripple Current & Frequency Multipliers	UR / Cap. \ Freq. / 50Hz / 120Hz / 1kHz / 10kHz 6.3V~10V / 10μF~ / 0.8 / 1.0 / 1.1 / 1.2 16V~25V / ≤1000μF / 0.8 / 1.0 / 1.5 / 1.7 16V~25V / > 1000μF / 0.8 / 1.0 / 1.2 / 1.3 35V~100V / 0.1μF~ / 0.8 / 1.0 / 1.6 / 1.9
Rated Ripple Current & Temperature Multipliers	Temperature: +50℃ / +70℃ / +85℃ Multiplier: 1.50 / 1.27 / 1.00

Dimensions



(mm)

D	± 0.5			± 1.0									
	5	6.3	8	10		12.5		16			18		
L	11	11	11.5	12.5	16	20	20	25	25	31.5	35.5	35.5	40
F ± 0.5	2	2.5	3.5	5					7.5				
d ± 0.1	0.5			0.6					0.8				
α	1.5						2.0						

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■ Nominal capacitance,rated voltage,rated ripple current and case size table

U_R(V) / Item / C_R(μF)	6.3		10		16		25	
	D×L mm	I~	D×L mm	I~	D×L mm	I~	D×L mm	I~
2.2							5×11	30
3.3							5×11	38
4.7	Rated ripple current (mA rms)(85℃,120Hz)				5×11	36	5×11	48
6.8					5×11	40	5×11	60
10	5×11	40	5×11	41	5×11	55	6.3×11	66
15	5×11	48	5×11	50	5×11	75	6.3×11	92
22	5×11	57	5×11	60	6.3×11	85	8×11.5	110
33	5×11	68	6.3×11	85	6.3×11	100	8×11.5	140
47	6.3×11	92	6.3×11	106	8×11.5	136	10×12.5	180
68	6.3×11	110	6.3×11	146	8×11.5	170	10×12.5	240
100	8×11.5	152	8×11.5	170	10×12.5	235	10×16	285
150	8×11.5	185	10×12.5	258	10×16	290	10×20	390
220	10×12.5	254	10×16	320	10×20	385	12.5×20	420
330	10×16	210	10×20	410	12.5×20	440	12.5×25	500
470	10×20	400	12.5×20	550	12.5×20	570	16×25	670
680	12.5×20	488	12.5×20	620	12.5×25	750	16×31.5	825
1000	12.5×25	657	12.5×25	820	16×25	930	16×35.5	1025
1500	12.5×25	918	16×25	1040	16×31.5	1180	16×35.5	1290
2200	16×25	1070	16×31.5	1220	18×35.5	1340	18×40	1460
3300	16×35.5	1280	16×35.5	1450	18×40	1580		
4700	18×40	1520	18×40	1670				

U_R(V) / Item / C_R(μF)	35		50		63		100	
	D×L mm	I~	D×L mm	I~	D×L mm	I~	D×L mm	I~
0.10			5×11	1.3			5×11	2.4
0.15			5×11	1.8			5×11	3.5
0.22			5×11	2.5			5×11	5.0
0.33			5×11	4.0			5×11	8.0
0.47			5×11	5.5			5×11	12
0.68			5×11	8			5×11	16
1.0			5×11	12	5×11	24	5×11	21
1.5	5×11	26	5×11	18	5×11	28	5×11	25
2.2	5×11	30	5×11	25	5×11	35	6.3×11	32
3.3	5×11	40	5×11	38	6.3×11	48	8×11.5	50
4.7	5×11	45	6.3×11	50	6.3×11	55	8×11.5	55
6.8	5×11	60	6.3×11	60	6.3×11	65	10×12.5	70
10	6.3×11	68	8×11.5	76	8×11.5	80	10×16	95
15	8×11.5	92	8×11.5	100	10×12.5	110	10×20	116
22	8×11.5	110	10×12.5	118	10×16	126	10×20	140
33	10×12.5	146	10×16	175	10×16	185	12.5×20	190
47	10×12.5	190	10×16	200	10×20	210	12.5×25	230
68	10×16	245	10×20	260	10×20	290	16×25	300
100	10×20	315	12.5×20	335	12.5×25	350	12.5×25	390
150	12.5×20	420	12.5×25	440	12.5×25	465	16×31.5	490
220	12.5×25	460	16×25	500	16×31.5	560	18×35.5	600
330	16×25	570	16×31.5	620	16×35.5	720	18×40	750
470	16×25	700	16×35.5	780	18×35.5	860		
680	16×31.5	860	16×35.5	930	18×35.5	1060		
1000	18×35.5	1120	18×40	1160	Rated ripple current (mA rms) (85℃,120Hz)			
1500	18×40	1400						