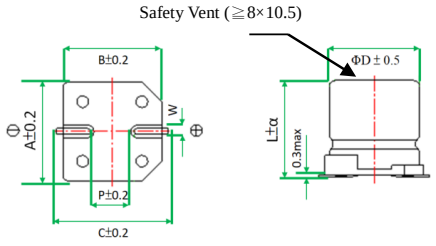
CEE Series

- **Extra Low Impedance**
- **Load life 2,000 to 5,000 hours at 105℃**

◆ SPECIFICATIONS

Item	Performance Characteristics
Category Temperature Range	-55 ~ +105℃
Working Voltage Range	50 ~ 100Vdc
Capacitance Range	3.3 ~ 470 μF
Capacitance Tolerance	±20% (at 25℃ and 120Hz)
Dissipation Factor (tanδ) (at 25℃, 120Hz)	Rated Voltage (V): 50 / 63 / 80 / 100 tanδ(Max) Φ4 ~ Φ10: 0.10 / 0.08 / 0.08 / 0.07 tanδ(Max) Φ12.5: 0.10 / 0.08 / 0.08 / 0.07 When nominal capacitance exceeds 1,000uF, add 0.02 to the value above for each 1,000uF increase.
Leakage Current	(Φ 4~ Φ 10) I=0.01CV or 3μA whichever is greater impress the rated voltage for 2 minutes (Φ 12.5) I=0.03CV or 4μA whichever is greater impress the rated voltage for 1 minute I : Leakage current (μA) C : Rated capacitance (μF) V : Rated voltage (V)
Low Temperature Characteristics Impedance Ratio(MAX)	Rated voltage (V): 50 / 63 / 80 / 100 Z(-25℃)/Z(+20℃): 2 / 2 / 2 / 2 Z(-55℃)/Z(+20℃): 3 / 3 / 3 / 3 (at 120Hz)
Endurance	The following specifications shall be satisfied when the capacitor are restored to 25℃ after subjected to DC voltage with the rated voltage is applied for 5,000 hours (Φ4~Φ8×6.5 for 2,000 hours) at 105℃. Capacitance change: ≦ ±30% of the initial value Dissipation factor(tanδ): ≦ 300% of the specified value Leakage current: ≦ specified value
Shelf Life	The following requirements shall be satisfied when the capacitor are restored to 25℃ after exposing them for 1,000 hours at 105℃without voltage applied. Capacitance change: ≦ ±30% of the initial value Dissipation factor(tanδ): ≦ 300% of the specified value Leakage current: ≦ 200% of the specified value
Others	Conforms to JIS-C-5101-18-2 (1999)

◆ DIMENSIONS (mm)



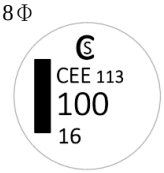
Code	Size	ΦD	L	α	A	B	C	W	P
0458	4×5.8	4.0	5.8	+0.4 -0.1	4.3	4.3	5.0	0.5~0.8	1.0
0558	5×5.8	5.0	5.8	+0.4 -0.1	5.3	5.3	5.9	0.5~0.8	1.5
6358	6.3×5.8	6.3	5.8	+0.4 -0.1	6.6	6.6	7.3	0.5~0.8	2.1
6377	6.3×7.7	6.3	7.7	±0.3	6.6	6.6	7.3	0.5~0.8	2.1
0865	8×6.5	8.0	6.5	±0.3	8.3	8.3	8.8	0.5~0.8	2.2
08A5	8×10.5	8.0	10.5	±0.5	8.3	8.3	9.1	0.8~1.2	3.1
10A5	10×10.5	10.0	10.5	±0.5	10.3	10.3	11	0.8~1.2	4.6
10C5	10×12.5	10.0	12.5	±0.5	10.3	10.3	11	0.8~1.2	4.6
12D5	12.5×13.5	12.5	13.5	±1.0	12.8	12.8	13.8	0.8~1.2	4.6
1216	12.5×16	12.5	16.0	±1.0	12.8	12.8	13.8	0.8~1.2	4.6

◆ MARKING

≤ 4 Φ

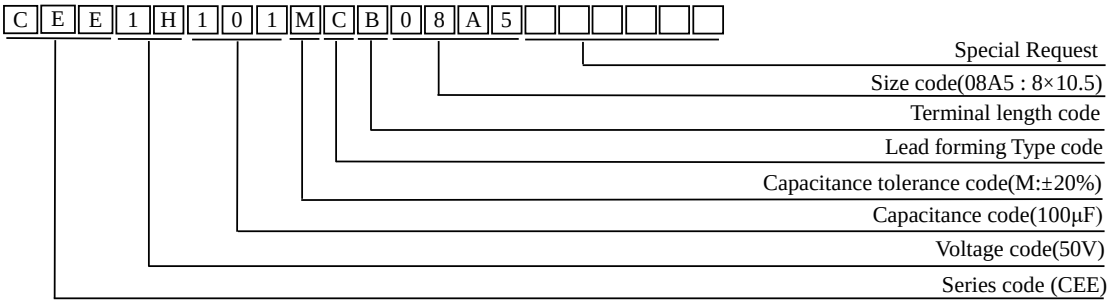
5~6.3 Φ

≥ 8 Φ



CEE Series

◆ **PART NUMBER SYSTEM (Example : 50V 100μF)**



◆ **STANDARD RATINGS**

WV (Vdc)	Cap (μF)	Case Size (mm) ΦD×L	IMPD. (Ωmax/ 20℃, 100kHz)	Rated Ripple current (mArms/ 105℃, 100kHz)	Part Number
50 (1H)	4.7	4×5.8	2.9	60	CEE1H4R7MCB0458
	4.7	5×5.8	1.52	85	CEE1H4R7MCB0558
	10	5×5.8	1.52	85	CEE1H100MCB0558
	10	6.3×5.8	0.88	165	CEE1H100MCB6358
	10	6.3×10.5	0.75	135	CEE1H100MCB63A5
	10	8×10.5	0.88	165	CEE1H100MCB08A5
	15	6.3×5.8	0.88	165	CEE1H150MCB6358
	22	6.3×5.8	0.88	165	CEE1H220MCB6358
	22	6.3×7.7	0.68	195	CEE1H220MCB6377
	22	8×6.5	0.68	195	CEE1H220MCB0865
	22	8×10.5	0.68	195	CEE1H220MCB08A5
	33	6.3×7.7	0.68	195	CEE1H330MCB6377
	33	8×6.5	0.68	195	CEE1H330MCB0865
	47	6.3×7.7	0.68	195	CEE1H470MCB6377
	47	8×6.5	0.68	195	CEE1H470MCB0865
	56	8×10.5	0.34	350	CEE1H560MCB08A5
	68	8×10.5	0.34	350	CEE1H680MCB08A5
	100	8×10.5	0.34	350	CEE1H101MCB08A5
	100	10×10.5	0.18	670	CEE1H101MCB10A5
	150	10×10.5	0.18	670	CEE1H151MCB10A5
	220	10×10.5	0.18	670	CEE1H221MCB10A5
	220	10×12.5	0.14	780	CEE1H221MCB10C5
	330	12.5×13.5	0.12	900	CEE1H331MCB12D5
	470	12.5×16	0.10	1050	CEE1H471MCB1216
63 (1J)	4.7	5×5.8	3	50	CEE1J4R7MCB0558
	10	6.3×5.8	1.5	80	CEE1J100MCB6358
	10	6.3×7.7	1.2	120	CEE1J100MCB6377
	22	6.3×7.7	1.2	120	CEE1J220MCB6377
	22	8×6.5	1.2	120	CEE1J220MCB0865
	22	8×10.5	0.65	250	CEE1J220MCB08A5

WV (Vdc)	Cap (μF)	Case Size (mm) ΦD×L	IMPD. (Ωmax/ 20℃, 100kHz)	Rated Ripple current (mArms/ 105℃, 100kHz)	Part Number
63 (1J)	33	8×10.5	0.65	250	CEE1J330MCB08A5
	47	8×10.5	0.65	250	CEE1J470MCB08A5
	68	8×10.5	0.65	250	CEE1J680MCB08A5
	68	12.5×13.5	0.16	800	CEE1J680MCB12D5
	100	10×10.5	0.35	400	CEE1J101MCB10A5
	100	12.5×13.5	0.16	800	CEE1J101MCB12D5
	150	10×10.5	0.25	650	CEE1J151MCB10A5
	150	12.5×13.5	0.16	800	CEE1J151MCB12D5
	220	12.5×13.5	0.16	800	CEE1J221MCB12D5
80 (1K)	3.3	5×5.8	5	25	CEE1K3R3MCB0558
	4.7	6.3×5.8	3.0	40	CEE1K4R7MCB6358
	10	6.3×7.7	3.0	60	CEE1K100MCB6377
	10	8×6.5	2.4	80	CEE1K100MCB0865
	22	8×10.5	1.3	130	CEE1K220MCB08A5
	33	8×10.5	1.3	130	CEE1K330MCB08A5
	47	10×10.5	1.0	200	CEE1K470MCB10A5
	68	12.5×13.5	0.32	500	CEE1K680MCB12D5
	100	12.5×13.5	0.32	500	CEE1K101MCB12D5
	150	12.5×13.5	0.32	500	CEE1K151MCB12D5
	220	12.5×16	0.26	550	CEE1K221MCB1216
100 (2A)	10	8×10.5	1.3	130	CEE2A100MCB08A5
	22	8×10.5	1.3	130	CEE2A220MCB08A5
	22	10×10.5	0.7	200	CEE2A220MCB10A5
	33	10×10.5	0.7	200	CEE2A330MCB10A5
	47	10×12.5	0.60	250	CEE2A470MCB10C5
	47	12.5×13.5	0.32	500	CEE2A470MCB12D5
	68	12.5×13.5	0.32	500	CEE2A680MCB12D5
	100	12.5×13.5	0.32	500	CEE2A101MCB12D5
	100	12.5×16	0.26	550	CEE2A101MCB1216

◆ **RIPPLE CURRENT MULTIPLIERS**

Frequency Multipliers

Size	Cap(μF)	Frequency (Hz)				
		50	120	300	1K	10K~
Φ4~Φ10	4.7~68	0.35	0.50	0.64	0.83	1.00
	100~470	0.40	0.55	0.70	0.85	1.00
Φ12.5	~68	0.40	0.55	0.70	0.85	1.00
	100~470	0.45	0.65	0.80	0.90	1.00