CTC Series

- **Long life 2,000 to 5,000 hours at 105℃**

◆ SPECIFICATIONS

Item	Performance Characteristics
Category Temperature Range	-55 ~ +105℃
Working Voltage Range	6.3 ~ 100Vdc
Capacitance Range	0.1 ~ 3,300 μF
Capacitance Tolerance	±20% (at 25℃ and 120Hz)
Dissipation Factor (tanδ) (at 25℃, 120Hz)	See table below
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)	See table below
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 (Φ 4~6.3×5.8,8×6.5 for 2,000 hours, and 6.3×7.7 for 3,000 hours) at 105℃.
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.
Others	Conforms to JIS-C-5101-18-2 (1999)

Dissipation Factor (tanδ) (at 25℃, 120Hz)

Rated Voltage (V)		6.3	10	16	25	35	50	63	100
tanδ(Max)	Φ4 ~ Φ10	0.28	0.24	0.20	0.16	0.14	0.12	0.12	0.12
	Φ12.5	0.38	0.34	0.30	0.26	0.22	0.18	0.18	0.18

When nominal capacitance exceeds 1,000uF, add 0.02 to the value above for each 1,000uF increase.

Low Temperature Characteristics Impedance Ratio(MAX)

Rated voltage (V)		6.3	10	16	25	35	50~100
Φ 4~ Φ 10	Z(-25℃)/Z(+20℃)	3	3	2	2	2	2
	Z(-55℃)/Z(+20℃)	8	5	4	3	3	3
Φ 12.5	Z(-25℃)/Z(+20℃)	5	4	3	2	2	2
	Z(-55℃)/Z(+20℃)	12	10	8	5	4	3

(at 120Hz)

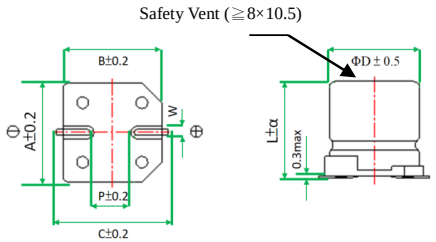
Endurance

Capacitance change	≦ ±30% of the initial value
Dissipation factor(tanδ)	≦ 300% of the specified value
Leakage current	≦ specified value

Shelf Life

Capacitance change	≦ ±30% of the initial value
Dissipation factor(tanδ)	≦ 300% of the specified value
Leakage current	≦ 200% of the specified value

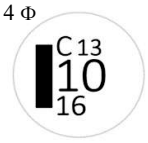
◆ DIMENSIONS (mm)



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

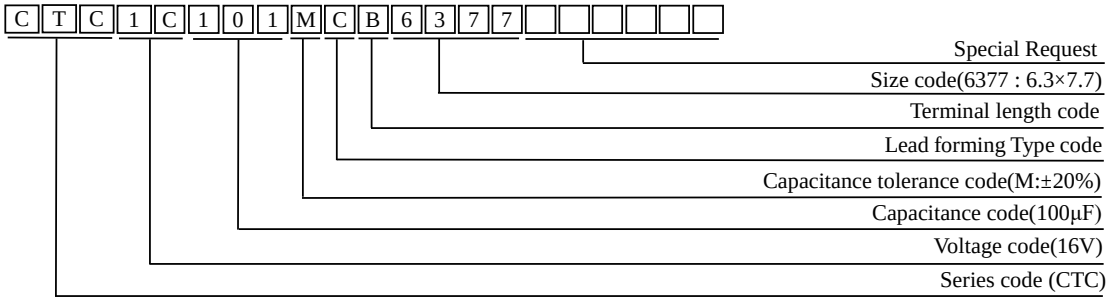


5~6.3 Φ

≥ 8 Φ

CTC Series

◆ **PART NUMBER SYSTEM (Example : 16V 100μF)**



◆ **STANDARD RATINGS**

WV (Vdc)	Cap (μF)	Case Size (mm) ΦD×L	Rated Ripple current (mArms/ 105℃, 120Hz)	Part Number
6.3 (0J)	22	4×5.8	22	CTC0J220MCB0458
	33	5×5.8	35	CTC0J330MCB0558
	47	5×5.8	38	CTC0J470MCB0558
	100	6.3×5.8	69	CTC0J101MCB6358
	150	6.3×7.7	85	CTC0J151MCB6377
	150	8×6.5	85	CTC0J151MCB0865
	220	6.3×7.7	120	CTC0J221MCB6377
	220	8×6.5	120	CTC0J221MCB0865
	330	8×10.5	290	CTC0J331MCB08A5
	470	10×10.5	320	CTC0J471MCB10A5
	680	10×10.5	320	CTC0J681MCB10A5
	1000	10×10.5	410	CTC0J102MCB10A5
	1500	10×12.5	450	CTC0J152MCB10C5
	2200	12.5×13.5	680	CTC0J222MCB12D5
	3300	12.5×13.5	800	CTC0J332MCB12D5
	3300	12.5×16	850	CTC0J332MCB1216
10 (1A)	22	5×5.8	30	CTC1A220MCB0558
	33	5×5.8	36	CTC1A330MCB0558
	47	6.3×5.8	50	CTC1A470MCB6358
	100	6.3×7.7	81	CTC1A101MCB6377
	100	8×6.5	81	CTC1A101MCB0865
	150	8×10.5	125	CTC1A151MCB08A5
	220	8×10.5	141	CTC1A221MCB08A5
	330	10×10.5	290	CTC1A331MCB10A5
	470	10×10.5	320	CTC1A471MCB10A5
	680	10×10.5	320	CTC1A681MCB10A5
	1000	10×12.5	390	CTC1A102MCB10C5
	1500	12.5×13.5	480	CTC1A152MCB12D5
	2200	12.5×13.5	510	CTC1A222MCB12D5
	2200	12.5×16	750	CTC1A222MCB1216
16 (1C)	10	4×5.8	18	CTC1C100MCB0458
	22	5×5.8	30	CTC1C220MCB0558
	33	6.3×5.8	48	CTC1C330MCB6358
	47	6.3×5.8	50	CTC1C470MCB6358
	100	6.3×7.7	81	CTC1C101MCB6377
	100	8×6.5	81	CTC1C101MCB0865
	150	8×10.5	125	CTC1C151MCB08A5
	220	10×10.5	216	CTC1C221MCB10A5
	330	10×10.5	290	CTC1C331MCB10A5
	470	10×10.5	320	CTC1C471MCB10A5
	680	10×12.5	420	CTC1C681MCB10C5
	1000	12.5×13.5	550	CTC1C102MCB12D5
	1500	12.5×13.5	650	CTC1C152MCB12D5

WV (Vdc)	Cap (μF)	Case Size (mm) ΦD×L	Rated Ripple current (mArms/ 105℃, 120Hz)	Part Number
25 (1E)	10	5×5.8	27	CTC1E100MCB0558
	22	6.3×5.8	44	CTC1E220MCB6358
	33	6.3×5.8	50	CTC1E330MCB6358
	47	6.3×7.7	63	CTC1E470MCB6377
	47	8×6.5	63	CTC1E470MCB0865
	100	6.3×7.7	100	CTC1E101MCB6377
	100	8×10.5	116	CTC1E101MCB08A5
	150	10×10.5	320	CTC1E151MCB10A5
	220	8×10.5	180	CTC1E221MCB08A5
	220	10×10.5	320	CTC1E221MCB10A5
	330	10×10.5	320	CTC1E331MCB10A5
	470	10×12.5	350	CTC1E471MCB10C5
	470	12.5×13.5	400	CTC1E471MCB12D5
	680	12.5×13.5	415	CTC1E681MCB12D5
	1000	12.5×13.5	460	CTC1E102MCB12D5
	1500	12.5×16	700	CTC1E152MCB1216
35 (1V)	4.7	4×5.8	16	CTC1V4R7MCB0458
	10	5×5.8	27	CTC1V100MCB0558
	22	6.3×5.8	44	CTC1V220MCB6358
	33	6.3×7.7	57	CTC1V330MCB6377
	33	8×6.5	57	CTC1V330MCB0865
	47	8×10.5	92	CTC1V470MCB08A5
	100	10×10.5	151	CTC1V101MCB10A5
	150	10×10.5	290	CTC1V151MCB10A5
	220	10×10.5	375	CTC1V221MCB10A5
	330	10×12.5	375	CTC1V331MCB10C5
	330	12.5×13.5	380	CTC1V331MCB12D5
	470	12.5×13.5	520	CTC1V471MCB12D5
	680	12.5×13.5	550	CTC1V681MCB12D5
	1000	12.5×16	600	CTC1V102MCB1216
50V (1H)	0.1	4×5.8	1	CTC1HR10MCB0458
	0.22	4×5.8	2.6	CTC1HR22MCB0458
	0.33	4×5.8	3.2	CTC1HR33MCB0458
	0.47	4×5.8	5	CTC1HR47MCB0458
	1	4×5.8	8	CTC1H010MCB0458
	2.2	4×5.8	12	CTC1H2R2MCB0458
	3.3	4×5.8	17	CTC1H3R3MCB0458
	4.7	5×5.8	22	CTC1H4R7MCB0558
	10	6.3×5.8	32	CTC1H100MCB6358
	22	6.3×7.7	58	CTC1H220MCB6377
	22	8×6.5	58	CTC1H220MCB0865
	33	8×10.5	140	CTC1H330MCB08A5

CTC Series

◆ **STANDARD RATINGS**

WV (Vdc)	Cap (μF)	Case Size (mm) ΦD×L	Rated Ripple current (mArms/ 105℃, 120Hz)	Part Number
50 (1H)	47	10×10.5	250	CTC1H470MCB10A5
	100	10×10.5	310	CTC1H101MCB10A5
	150	10×10.5	310	CTC1H151MCB10A5
	220	10×12.5	320	CTC1H221MCB10C5
	220	12.5×13.5	340	CTC1H221MCB12D5
	330	12.5×13.5	500	CTC1H331MCB12D5
	330	12.5×16	600	CTC1H331MCB1216
63 (1J)	10	6.3×7.7	45	CTC1J100MCB6377
	10	8×6.5	45	CTC1J100MCB0865
	22	8×10.5	65	CTC1J220MCB08A5
	33	10×10.5	80	CTC1J330MCB10A5
	47	10×10.5	90	CTC1J470MCB10A5
	100	10×12.5	150	CTC1J101MCB10C5

WV (Vdc)	Cap (μF)	Case Size (mm) ΦD×L	Rated Ripple current (mArms/ 105℃, 120Hz)	Part Number
63 (1J)	220	12.5×13.5	470	CTC1J221MCB12D5
	330	12.5×16	550	CTC1J331MCB1216
100 (2A)	3.3	6.3×7.7	30	CTC2A3R3MCB6377
	3.3	8×6.5	30	CTC2A3R3MCB0865
	4.7	8×10.5	50	CTC2A4R7MCB08A5
	10	8×10.5	55	CTC2A100MCB08A5
	22	10×10.5	70	CTC2A220MCB10A5
	33	10×10.5	80	CTC2A330MCB10A5
	47	10×12.5	150	CTC2A470MCB10C5
	47	12.5×13.5	250	CTC2A470MCB12D5
	100	12.5×13.5	300	CTC2A101MCB12D5
	150	12.5×13.5	380	CTC2A151MCB12D5
	150	12.5×16	420	CTC2A151MCB1216

◆ **RIPPLE CURRENT MULTIPLIERS**

Frequency Multipliers

Size	Cap(μF)	Frequency (Hz)				
		50	120	300	1K	10K~
Φ4~Φ10	~1500	0.70	1.00	1.17	1.36	1.50
Φ12.5	~68	0.75	1.00	1.35	1.57	2.00
	100~470	0.80	1.00	1.23	1.34	1.50
	680~3300	0.85	1.00	1.10	1.13	1.15