

# ALUMINUM ELECTROLYTIC CAPACITOR (CD50 MS)

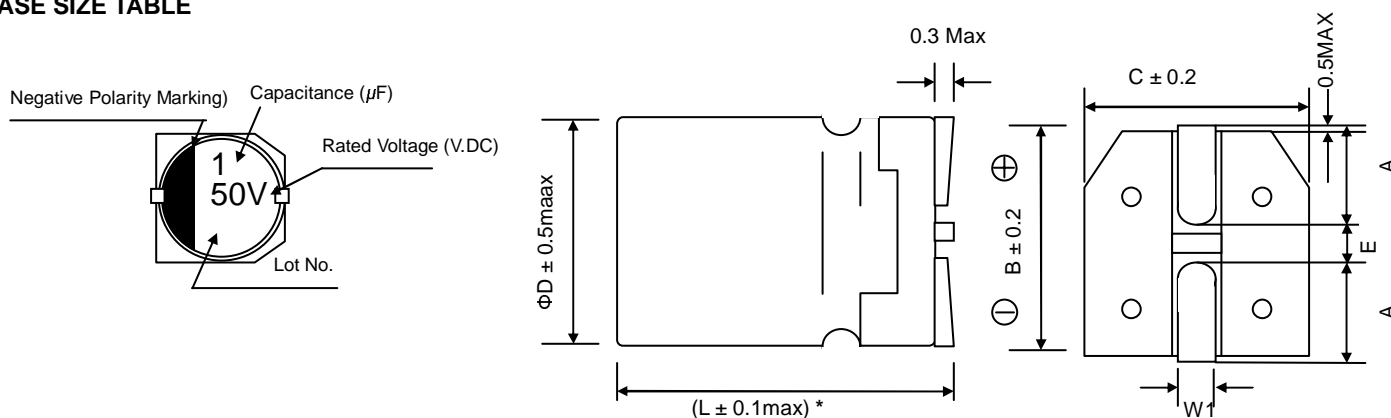
## MS FEATURES

- No lead wires chip type structure, suitable for automatic SMT and high density circuits.

## SPECIFICATIONS

Item	Performance Characteristics							
Rated Voltage Range	4V.DC~50V.DC							
Operating Temperature Range	-40°C~+85°C							
Nominal Capacitance Range	0.1μF~220μF							
Capacitance Tolerance	±20%(M,+25°C,120Hz)							
Leakage Current	After application of rated voltage for 2 minutes: $I \leq 0.01CV$ or $3\mu A$ (Whichever is greater) 25°C C: Nominal Capacitance in μF; V: Rated Working Voltage in V							
Dissipation Factor (tanδ)	Rated Working Voltage(V)	4	6.3	10	16	25	35	50
	tanδ(MAX) (25°C,120Hz)	0.40	0.30	0.24	0.19	0.16	0.14	0.14
Temperature Stability	Rated Working Voltage(V)	4	6.3	10	16	25	35	50
	Impedance Ratio(120Hz) Z-40°C/Z+20°C	15	8	8	4	4	4	4
Load Life	After applying rated voltage for 2000 hours at +85°C, Capacitors meet the characteristics requirements measured at +25°C listed below; Capacitance: ±20% Initial measured value Leakage current: ≤ Initial specified value Dissipation factor: ≤200% Initial specified value							
Shelf Life	After leaving capacitors under no load at +85°C for 1000 hours, capacitors meet the characteristics listed above							

## CASE SIZE TABLE



ΦD	L	C	B	A	W1	E
4	5.5	4.3	4.3	1.8	0.5-0.8	1.0
5	5.5	5.3	5.3	2.1	0.5-0.8	1.4
6.3	5.5	6.6	6.6	2.5	0.5-0.8	2.0
6.3	7.7	6.3	6.6	2.5	0.5-0.8	2.0

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## MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

Freq(Hz) Cap(μF)	50(60)	120	500	1K	10K
0.1~4.7	0.8	1.0	1.20	1.30	1.50
100~220	0.8	1.0	1.10	1.15	1.20

Temperature coefficient

Ambient Temperature(°C)	85	70	50
Factor	1.0	1.6	2.0

## DIMENSIONS, RATED VOLTAGE RANGE AND CAPACITANCE

UR(v) CR(μF)	4		6.3		10		16		25		35		50	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
0.1													4x5.5	1.0
0.22													4x5.5	2.0
0.33													4x5.5	2.5
0.47													4x5.5	4.0
1													4x5.5	8.0
2.2													4x5.5	10
3.3											4x5.5	10	4x5.5	17
4.7									4x5.5	18	4x5.5	18	5x5.5	22
10							4x5.5	18	5x5.5	30	5x5.5	30	6.3x5.5	30
22			4x5.5	27	5x5.5	31	5x5.5	39	6.3x5.5	43	6.3x5.5	48	6.3x5.5	48
33	4x5.5	28	5x5.5	29	5x5.5	43	6.3x5.5	43	6.3x5.5	50	6.3x5.5	48		
47	4x5.5	34	5x5.5	36	6.3x5.5	61	6.3x5.5	60						
100	5x5.5	61	6.3x5.5	61										
220	6.3x5.5	96												

(1) Case Size DxL(mm)

(2) Max allowable ripple current (mArms+85°C120Hz)