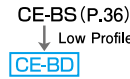


# CE-BD Series

Small, Low Profile  
4.5mm Height



- Solvent proof (within 2 minutes)

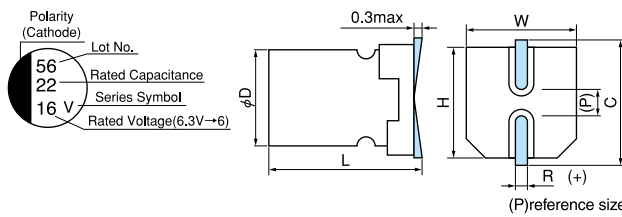


Surface Mount Type  
Aluminum Electrolytic Capacitors

## Specifications

Items	Condition	Specifications							
Rated voltage (V)	—	4	6.3	10	16	25	35	50	
Surge voltage (V)	Room temperature	5.0	8.0	13	20	32	44	63	
Category temperature range (°C)	—	-40 to +85							
Capacitance tolerance (%)	120Hz/20°C	M : ±20							
Dissipation Factor (tan δ)	tanδ (max) 120Hz/20°C	0.40	0.30	0.24	0.20	0.16	0.14	0.12	
Leakage current (LC)	μA/after 2minutes (max)	The greater value of either 0.01CV or 3							
Impedance ratio at low temperature	Based the value at 120Hz, +20°C	-25°C Z/Z <sub>20°C</sub>	7	4	3	2	2	2	2
		-40°C Z/Z <sub>20°C</sub>	15	10	8	6	4	4	4
Endurance	85°C, 1,000hours rated voltage applied (With the rated ripple current)	ΔC/C	Within ±25% of the initial value						
		tan δ	Less than 200% of the specified value						
		LC	Less than the specified value						

## Marking, Dimensions



(Unit : mm)

D <sup>+0.5max</sup>	L <sup>+0.1 -0.2</sup>	W <sup>±0.2</sup>	H <sup>±0.2</sup>	C <sup>±0.2</sup>	R	P
4	4.5	4.3	4.3	5.0	0.5 to 0.8	1.0
5	4.5	5.3	5.3	6.0	0.5 to 0.8	1.4
6.3	4.5	6.6	6.6	7.3	0.5 to 0.8	2.2

## Size, Rated Ripple Current

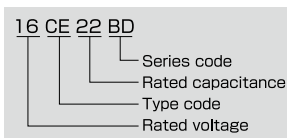
μF \ V	4	6.3	10	16	25	35	50
0.47							4x4.5 4.0
1.0							4x4.5 8.4
2.2							4x4.5 14
3.3							4x4.5 17
4.7					4x4.5 17	4x4.5 18	5x4.5 21
10				4x4.5 23	5x4.5 27	5x4.5 29	6.3x4.5 33
22		4x4.5 28	5x4.5 33	5x4.5 37	6.3x4.5 47	6.3x4.5 49	
33	4x4.5 28	5x4.5 37	5x4.5 41	6.3x4.5 51	6.3x4.5 57		
47	4x4.5 33	5x4.5 45	6.3x4.5 53	6.3x4.5 61			
100	5x4.5 56	6.3x4.5 70	6.3x4.5 74				
220	6.3x4.5 96						

Please refer to page 15 for ripple current frequency coefficients.

Rated ripple current  
mA rms (120Hz, 85°C)

Case size: φDxL (mm)

## Part number



CE-BE  
 CE-BD  
 CE-BS  
 CE-BSS  
 CE-FE  
 CE-LD  
 CE-FU  
 CE-FS  
 CE-FSS  
 CE-FH  
 CE-GA  
 CE-AX  
 CE-KX  
 CE-ZX  
 CE-ZC  
 CE-LX  
 CE-LS  
 CE-LH  
 CE-LL  
 CE-PC  
 CE-PH  
 CE-PS  
 CE-PF  
 CE-TH  
 CE-NP  
 CE-FN