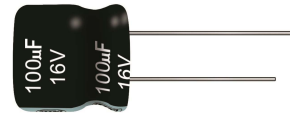




SB & SB-H Series

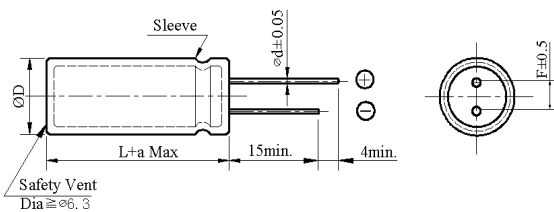
- Standard miniature series with 5mm height at 85 °C & 105°C



◆ SPECIFICATIONS

Item	Performance Characteristics							
	SB				SB-H			
Series	SB				SB-H			
Category Temperature Range	-40 ~ +85°C				-40 ~ +105°C			
Working Voltage Range	4 ~ 50 Vdc							
Capacitance Range	0.1 ~ 470 µF							
Capacitance Tolerance	±20% (at 25°C and 120Hz)							
Dissipation Factor (tanδ) (at 25°C, 120Hz)	Rated Voltage (V)	4	6.3	10	16	25	35	50
	tanδ(Max)	0.37	0.28	0.22	0.18	0.16	0.14	0.12
Leakage Current	I=0.01CV or 3µA whichever is greater I : Leakage current (µA) C : Rated capacitance (µF) V : Rated voltage (V) Impress the rated voltage for 2 minutes							
Low Temperature Characteristics Impedance Ratio(MAX)	Rated voltage (V)	4	6.3	10	16	25	35	50
	Z(-40°C)/Z(+20°C)	15	8	8	6	4	4	3
Endurance	The following requirements shall be satisfied when the capacitor are restored to 25°C after the rated voltage applied for 1,000 hours at 85°C(SB), or 1,000 hours at 105°C(SB-H).							
	Capacitance change	≒ ±25% of the initial value (4V:≤±30%)						
	Dissipation factor(tanδ)	≒ 200% of the specified value						
Shelf Life	The following requirements shall be satisfied when the capacitor are restored to 25°C after the rated voltage applied for 500 hours at 85°C(SB), or 500 hours at 105°C(SB-H) without voltage applied.							
	Capacitance change	≒ ±25% of the initial value						
	Dissipation factor(tanδ)	≒ 200% of the specified value						
Leakage current	≒ specified value							
	Others							
Conforms to JIS-C-5101-4 (1998), characteristic W								

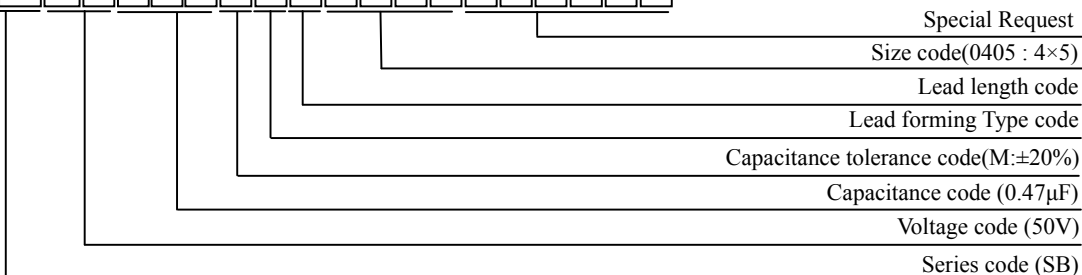
◆ DIMENSIONS (mm)



ΦD	4	5	6.3	8×5
ΦD	ΦD + 0.5 Max			
Φd	0.45	0.45	0.45	0.45
F	1.5	2.0	2.5	3.5
a	L + 1.0 Max			

◆ PART NUMBER SYSTEM(Example : 50V 0.47µF)

S B 1 H R 4 7 M N N 0 4 0 5





SB-H Series

◆ Case size & Permissible rated ripple current: (mA rms) at 105°C / 120Hz

uF \ Vdc	4		6.3		10		16	
	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
0.1								
0.22								
0.33								
0.47								
1.0								
2.2								
3.3								
4.7								
10								
22							4×5	22
33					5×5	33	5×5	37
47	5×5	30	5×5	32	5×5	35	6.3×5	50
100	6.3×5	60	6.3×5	60	6.3×5	62	6.3×5	65
220	6.3×5	65	6.3×5	72	8×5	92	8×5	96
330	8×5	70	8×5	105				
470	8×5	105						

uF \ Vdc	25		35		50	
	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
0.1					4×5	0.8
0.22					4×5	1.6
0.33					4×5	2.2
0.47					4×5	3.5
1.0					4×5	6.0
2.2					4×5	11
3.3					4×5	14
4.7			4×5	15	5×5	18
10	4×5	18	5×5	22	6.3×5	28
22	5×5	25	6.3×5	38	8×5	42
33	6.3×5	40	6.3×5	45		
47	6.3×5	54	8×5	60		
100	8×5	70				

◆ RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Vdc	Frequency (Hz)				
	60	120	1K	10K	100K
4 ~ 25	0.75	1.00	1.10	1.13	1.20
35 ~ 50	0.80	1.00	1.15	1.20	1.25