

Surface Mount Type

Series : **EB** Large Can Size
High Voltage



■ Features

- Case size: $\phi 10 \times 13.5$ to $\phi 18 \times 21.5$
- Life time: 5000 hours at 105°C

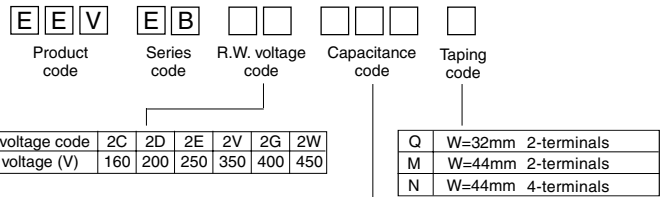
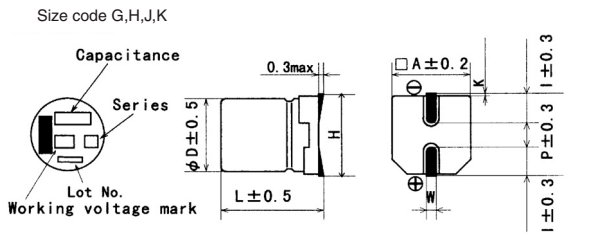
■ Specifications

Operating Temp. Range	-20 to +105°C							
Rated W.V. Range	160 to 450 V .DC							
Nominal Cap. Range	2.2 to 100 μ F							
Capacitance Tolerance	$\pm 20\%$ (120Hz/+20°C)							
Dissipation Factor	W.V.	160	200	250	350	400	450	(at 120Hz, 20°C)
	D.F.	0.15	0.15	0.15	0.20	0.24	0.24	
DC Leakage Current	$I \leq 0.06CV + 10$ (μ A) after 2 minutes application of rated w.v. at +20°C							
Endurance	After applying DC voltage + specified ripple current (the sum of DC and ripple peak voltage should not exceed rated working voltage) for *5000 hours at +105 \pm 2°C and then being stabilized at +20°C, capacitors shall meet the following limits:							
	Capacitance change	$\pm 20\%$ of the initial measured value						* 3000 hours for G13 size 4000 hours for G17 size
	D.F.	$\leq 200\%$ of the initial specified value						
	DC leakage current	\leq initial specified value						
Shelf Life	After storage for 1000 hours at +105 \pm 2°C with no voltage applied and then being stabilized at +20°C, capacitors shall meet the following limits specified in "Endurance" (with voltage treatment).							
Resistance to Soldering Heat	After reflow soldering (refer to Application Guidelines) and then being stabilized at +20°C, capacitor shall meet the following limits:							
	Capacitance change	$\pm 10\%$ of the initial measured value						
	D.F.	\leq initial specified value						
	DC leakage current	\leq initial specified value						

■ Marking

■ Dimensions in mm (not to scale)

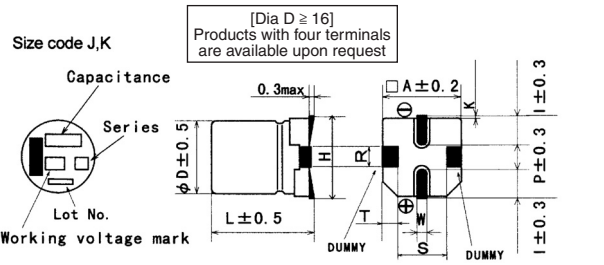
■ Part Numbering System



The first 2 figures are actual values and third denotes the number of zeros.

Case size ϕD	A	H	I	P	W	K	R	S	T
$\phi 10$	10.3	12.0 MAX	3.5	4.6	0.9 \pm 0.2	0.7 \pm 0.2	-	-	-
$\phi 12.5$	13.5	15.0 MAX	4.7	4.4	0.9 \pm 0.3	0.7 \pm 0.3	-	-	-
$\phi 16$	17.0	19.0 MAX	5.5	6.7	1.2 \pm 0.3	0.7 \pm 0.3	(6.2)	(12.0)	(2.5)
$\phi 18$	19.0	21.0 MAX	6.5	6.7	1.2 \pm 0.3	0.7 \pm 0.3	(6.2)	(14.0)	(3.5)

(mm)
 ("()") - 4 terminals



■ Standard Products

W.V.	160	200	250	350	400	450
Cap. (μ F)	(2C)	(2D)	(2E)	(2V)	(2G)	(2W)
2.2						G13
3.3					G13	G17
4.7					G17	H16
10	G13		G17	J16	J16	K16
22		H16	J16	K16	J21	K21
33	H16	J16	K16	J21	K21	
47	J16	K16	J21	K21		
68	J21, K16	J21	K21			
100	K21	K21				

Case Size Code:
 G13 = $\phi 10 \times 13.5L$ J16 = $\phi 16 \times 16.5L$ K16 = $\phi 18 \times 16.5L$
 G17 = $\phi 10 \times 17.5L$ J21 = $\phi 16 \times 21.5L$ K21 = $\phi 18 \times 21.5L$
 H16 = $\phi 12.5 \times 16.5L$

■ Standard Products

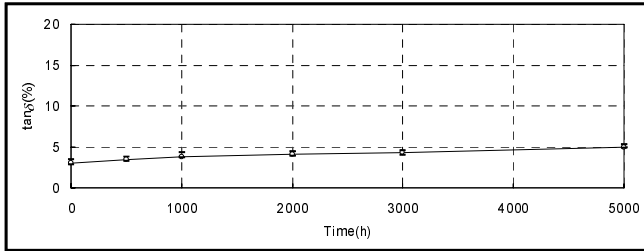
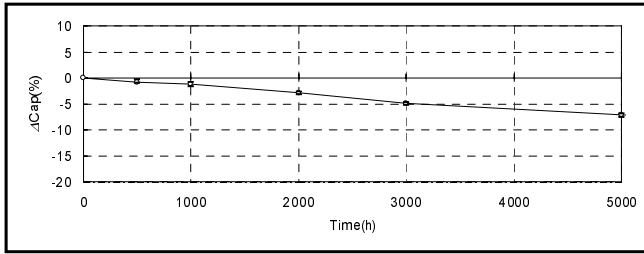
W.V. [V.DC]	Cap. [μ F]	Part No.	L.C. [μ A] max	tan δ	R.C. [mA rms]	Size [mm]	
						D	L
160	10	EEVEB2C100Q	106	0.15	70	10	13.5
	33	EEVEB2C330SQ	327	0.15	470	12.5	16.5
	47	EEVEB2C470SM	461	0.15	600	16	16.5
	68	EEVEB2C680M	663	0.15	750	16	21.5
		EEVEB2C680SM	663	0.15	750	18	16.5
100	EEVEB2C101M	970	0.15	1060	18	21.5	
200	22	EEVEB2D220SQ	274	0.15	470	12.5	16.5
	33	EEVEB2D330SM	406	0.15	600	16	16.5
	47	EEVEB2D470SM	574	0.15	600	18	16.5
	68	EEVEB2D680M	826	0.15	750	16	21.5
	100	EEVEB2D101M	1210	0.15	1060	18	21.5
250	10	EEVEB2E100Q	160	0.15	88	10	17.5
	22	EEVEB2E220SM	340	0.15	560	16	16.5
	33	EEVEB2E330SM	505	0.15	560	18	16.5
	47	EEVEB2E470M	715	0.15	710	16	21.5
	68	EEVEB2E680M	1030	0.15	990	18	21.5
350	10	EEVEB2V100SM	220	0.20	270	16	16.5
	22	EEVEB2V220SM	472	0.20	350	18	16.5
	33	EEVEB2V330M	703	0.20	480	16	21.5
	47	EEVEB2V470M	997	0.20	670	18	21.5
400	3.3	EEVEB2G3R3Q	89	0.24	40	10	13.5
	4.7	EEVEB2G4R7Q	123	0.24	50	10	17.5
	10	EEVEB2G100SM	250	0.24	250	16	16.5
	22	EEVEB2G220M	538	0.24	410	16	21.5
	33	EEVEB2G330M	802	0.24	600	18	21.5
450	2.2	EEVEB2W2R2Q	69	0.24	29	10	13.5
	3.3	EEVEB2W3R3Q	99	0.24	41	10	17.5
	4.7	EEVEB2W4R7SQ	137	0.24	49	12.5	16.5
	10	EEVEB2W100SM	280	0.24	310	18	16.5
	22	EEVEB2W220M	604	0.24	560	18	21.5

tan δ = at 120 Hz/+20°C, Ripple current = at 100 kHz/+105°C

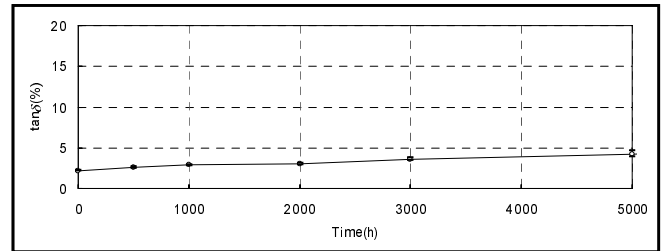
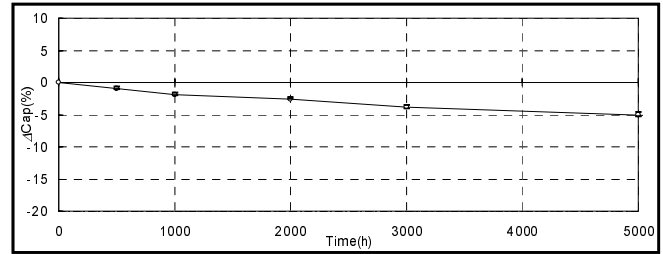
4 terminal type is available upon request for 16-18 mm diameter caps (suffix "N")

■ Load Life Data

EEUEB2G100 (400V10 μ F, ϕ 16X16.5L)

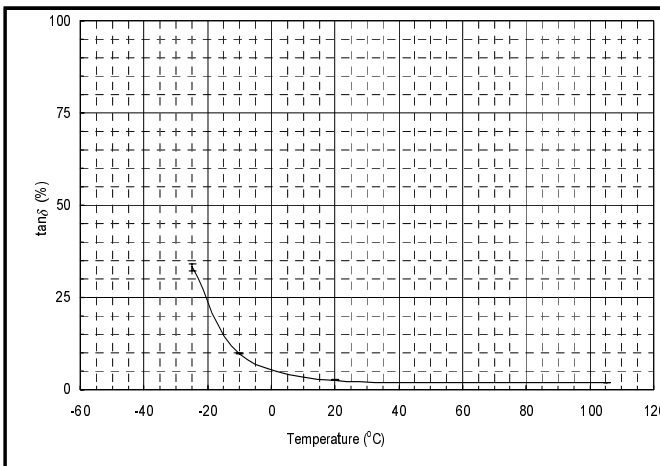
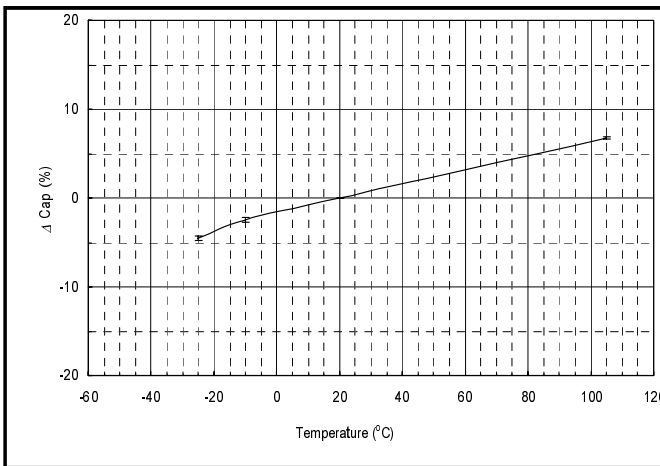


EEVEB2E470 (250V47 μ F, ϕ 16x21.5L)

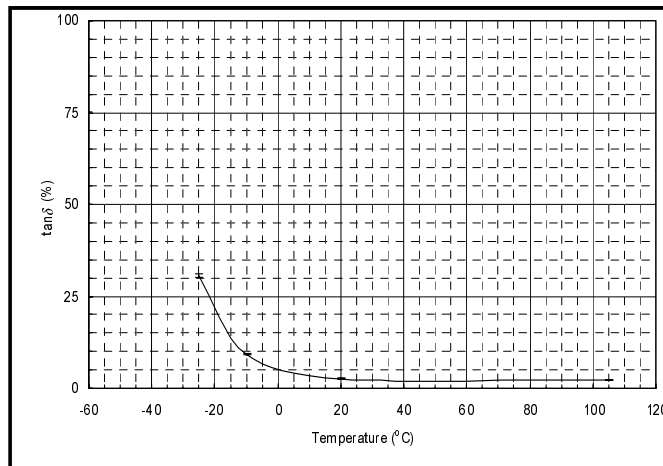
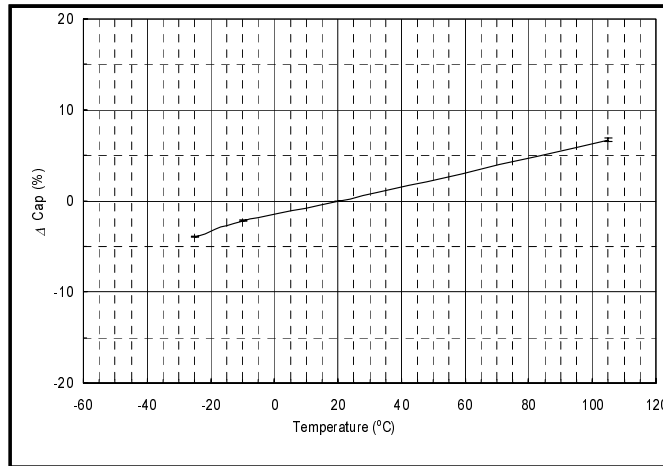


■ Temperature Characteristics

EEUEB2G100 (400V10 μ F, ϕ 16x16.5L)

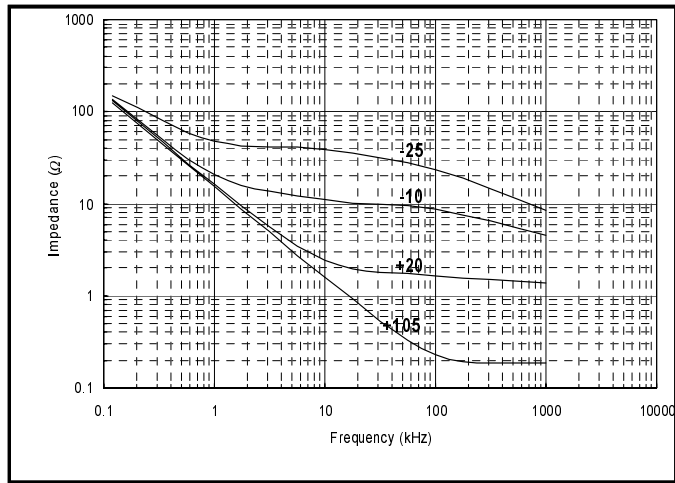


EEVEB2E470 (250V47 μ F, ϕ 16x21.5L)



Frequency Characteristics

EEVEB2G100 (400V10 μ F, ϕ 16x16.5L)



EEVEB2E470 (250V47 μ F, ϕ 16x21.5L)

