

Surface Mount Type

Series: **EB**(Large Can Size) Type : **V**

Country of Origin

Japan

■ Features

Endurance : 105°C 3000 to 5000 h
Case size : $\phi 10 \times 13.5$ to $\phi 18 \times 21.5$



■ Specifications

Category temp. range	-25 to +105°C							
Rated W.V. Range	160 to 450 V .DC							
Nominal Cap. Range	2.2 to 100 μF							
Capacitance Tolerance	± 20 % (120Hz/+20°C)							
DC Leakage Current	I ≤ 0.06 CV +10(μ A) after 2 minutes							
tan δ	Please see the attached standard products list							
Characteristics at Low Temperature	W.V. (V)	160	200	250	350	400	450	(Impedance ratio at 120Hz)
	Z(-25°C)/Z(+20°C)	2	2	3	5	6	6	
Endurance	After following test with DC voltage and +105±2°C ripple current value applied (The sum of DC and ripple peak voltage shall not exceed the rated working voltage), for 5000 hours, the capacitors shall meet the limits specified bellow. (Size G13: 3000 h, G17: 4000 h)							
	Capacitance change	±20% of initial measured value						
	tan δ	≤ 200 % of initial specified value						
	DC leakage current	≤ initial specified value						
Shelf Life	After storage for 1000 hours at +105±2°C with no voltage applied and then being stabilized at +20°C, capacitors shall meet the limits specified in Endurance.(With voltage treatment)							
Resistance to Soldering Heat	After reflow soldering (Refer to page 184 for recommendable temperature profile.) and then being stabilized at +20°C, capacitor shall meet the following limits.							
	Capacitance change	±10% of initial measured value						
	tan δ	≤ initial specified value						
	DC leakage current	≤ initial specified value						

■ Marking

Marking color : BLACK

W.V. code

Negative polarity marking

Capacitance (μ F)

EB

Series identification

W.V. code

Lot number

V	160	200	250	350	400	450
Code	2C	2D	2E	2V	2G	2W

■ Dimensions in mm (not to scale)

():reference size

(mm)

■ Case size

W.V.(V) Cap. (μ F)	160(2C)	200(2D)	250(2E)	350(2V)	400(2G)	450(2W)
2.2						G13
3.3				G13	G13	G17
4.7				G17	G17	H16
10	G13	G17	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				

Size code	D	L	A,B	H max.	I	W	P	K
G13	10	13.5	10.3	12.0	3.5	0.9 $\pm$ 0.2	4.6	0.7 $\pm$ 0.20
G17	10	16.5	10.3	12.0	3.5	0.9 $\pm$ 0.2	4.6	0.7 $\pm$ 0.20
H16	12.5	16.5	13.5	15.0	4.7	0.9 $\pm$ 0.3	4.4	0.7 $\pm$ 0.30
J16	16	16.5	17.0	19.0	5.5	1.2 $\pm$ 0.3	6.7	0.7 $\pm$ 0.30
J21	16	21.5	17.0	19.0	5.5	1.2 $\pm$ 0.3	6.7	0.7 $\pm$ 0.30
K16	18	16.5	19.0	21.0	6.7	1.2 $\pm$ 0.3	6.7	0.7 $\pm$ 0.30
K21	18	21.5	19.0	21.0	6.7	1.2 $\pm$ 0.3	6.7	0.7 $\pm$ 0.30

■ Standard Products

W.V. (V)	Cap. (±20%) (μF)	Case size			Specification			Part No.	Min. Packaging Q'ty
		Dia. (mm)	Length (mm)	Size Code	Ripple current (100kHz) (+105°C) (mA)	tan δ (120Hz) (+20°C)	Endur- ance (+105°C) (hours)		Taping (pcs)
160	10	10	13.5	G13	70	0.15	3000	EEVEB2C100Q	250
	33	12.5	16.5	H16	470	0.15	5000	EEVEB2C330SQ	150
	47	16	16.5	J16	600	0.15	5000	EEVEB2C470SM	125
	68	16	21.5	J21	750	0.15	5000	EEVEB2C680M	75
		18	16.5	K16	750	0.15	5000	EEVEB2C680SM	125
	100	18	21.5	K21	1060	0.15	5000	EEVEB2C101M	75
200	10	10	16.5	G17	80	0.15	4000	EEVEB2D100Q	200
	22	12.5	16.5	H16	470	0.15	5000	EEVEB2D220SQ	150
	33	16	16.5	J16	600	0.15	5000	EEVEB2D330SM	125
	47	18	16.5	K16	600	0.15	5000	EEVEB2D470SM	125
	68	16	21.5	J21	750	0.15	5000	EEVEB2D680M	75
	100	18	21.5	K21	1060	0.15	5000	EEVEB2D101M	75
250	10	10	16.5	G17	88	0.15	4000	EEVEB2E100Q	200
	22	16	16.5	J16	560	0.15	5000	EEVEB2E220SM	125
	33	18	16.5	K16	560	0.15	5000	EEVEB2E330SM	125
	47	16	21.5	J21	710	0.15	5000	EEVEB2E470M	75
	68	18	21.5	K21	990	0.15	5000	EEVEB2E680M	75
350	3.3	10	13.5	G13	38	0.20	3000	EEVEB2V3R3Q	250
	4.7	10	16.5	G17	50	0.20	4000	EEVEB2V4R7Q	200
	10	16	16.5	J16	270	0.20	5000	EEVEB2V100SM	125
	22	18	16.5	K16	350	0.20	5000	EEVEB2V220SM	125
	33	16	21.5	J21	480	0.20	5000	EEVEB2V330M	75
	47	18	21.5	K21	670	0.20	5000	EEVEB2V470M	75
400	3.3	10	13.5	G13	40	0.24	3000	EEVEB2G3R3Q	250
	4.7	10	16.5	G17	50	0.24	4000	EEVEB2G4R7Q	200
	10	16	16.5	J16	250	0.24	5000	EEVEB2G100SM	125
	22	16	21.5	J21	410	0.24	5000	EEVEB2G220M	75
	33	18	21.5	K21	600	0.24	5000	EEVEB2G330M	75
450	2.2	10	13.5	G13	29	0.24	3000	EEVEB2W2R2Q	250
	3.3	10	16.5	G17	41	0.24	4000	EEVEB2W3R3Q	200
	4.7	12.5	16.5	H16	49	0.24	5000	EEVEB2W4R7SQ	150
	10	18	16.5	K16	310	0.24	5000	EEVEB2W100SM	125
	22	18	21.5	K21	560	0.24	5000	EEVEB2W220M	75

Please ask factory for packaging specifications of Large Can EB series, Tray package is available.
Please use it as a reference guide.