Surface Mount Type

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



Features

- Endurance : 105 °C 3000 h to 5000 h
- RoHS compliant

Specifications

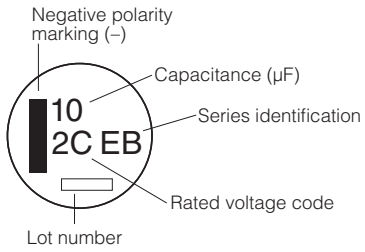
Category temperature range	–25 °C to +105 °C							
Rated voltage range	160 V.DC to 450 V.DC							
Capacitance range	2.2 µF to 100 µF							
Capacitance tolerance	±20 % (120 Hz/+20 °C)							
Leakage current	I ≦ 0.06 CV +10 (µA) After 2 minutes							
Dissipation factor (tan δ)	Please see the attached characteristics list							
Characteristics at low temperature	V.DC	160	200	250	350	400	450	(Impedance ratio at 120 Hz)
	Z(–25 °C) / Z(+20 °C)	2	2	3	5	6	6	
Endurance	After the life test with DC rated working voltage at +105 °C±2 °C for 5000 hours, the capacitors shall meet the limits specified below. (Size code G13 : 3000 hours, G17 : 4000 hours)							
	Capacitance change	Within ±20 % of the initial value						
	tan δ	≦200 % of the initial limit						
	DC leakage current	Within the initial limit						
Shelf life	After storage for 1000 hours at +105 °C±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 and then being stabilized at +20 °C, capacitors shall meet the following limits.							
	Capacitance change	Within ±10 % of the initial value						
	tan δ	Within the initial limit						
	DC leakage current	Within the initial limit						

Frequency correction factor for ripple current

Rated Voltage (V.DC) \ Frequency (Hz)	120	1 k	10 k ≦ f < 30 k	30 k ≦ f ≦ 100 k
160 to 250	0.55	0.85	0.90	1.00
350 to 450	0.50	0.80	0.90	1.00

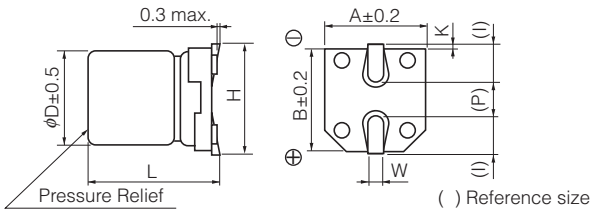
Marking

Example : 160 V.DC 10 µF
Marking color : BLACK



R. Voltage (V.DC)	160	200	250	350	400	450
Code	2C	2D	2E	2V	2G	2W

Dimensions



(Unit : mm)

Size code	φD	L	A,B	H	I	W	P	K
G13	10.0	13.5±0.5	10.3	12.0 max.	3.5	0.9±0.2	4.6	0.70±0.20
G17	10.0	16.5±0.5	10.3	12.0 max.	3.5	0.9±0.2	4.6	0.70±0.20
H16	12.5	16.5±0.5	13.5	15.0 max.	4.7	0.9±0.2	4.4	0.70±0.30
J16	16.0	16.5±0.5	17.0	19.0 max.	5.5	1.2±0.3	6.7	0.70±0.30
J21	16.0	21.5±0.5	17.0	19.0 max.	5.5	1.2±0.3	6.7	0.70±0.30
K16	18.0	16.5±0.5	19.0	21.0 max.	6.7	1.2±0.3	6.7	0.70±0.30
K21	18.0	21.5±0.5	19.0	21.0 max.	6.7	1.2±0.3	6.7	0.70±0.30

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use.
Should a safety concern arise regarding this product, please be sure to contact us immediately.

Characteristics list

Endurance : 105 °C 5000 h (G13 : 3000 h, G17 : 4000 h)

Rated voltage (V.DC)	Cap. (±20 %) (μF)	Case size (mm)		Size code	Specification			Part No.	Reflow	Min. Packaging Q'ty
		φD	L		Ripple current (100 kHz) (+105 °C) (mA r.m.s.)	tan δ (120 Hz) (+20 °C)	Endurance (hours)			Taping
160	10	10	13.5	G13	70	0.15	3000	EEVEB2C100Q	(4)	250
	33	12.5	16.5	H16	470	0.15	5000	EEVEB2C330SQ	(4)	150
	47	16	16.5	J16	600	0.15	5000	EEVEB2C470SM	(4)	125
	68	16	21.5	J21	750	0.15	5000	EEVEB2C680M	(4)	75
		18	16.5	K16	750	0.15	5000	EEVEB2C680SM	(4)	125
	100	18	21.5	K21	1060	0.15	5000	EEVEB2C101M	(4)	75
200	10	10	16.5	G17	80	0.15	4000	EEVEB2D100Q	(4)	200
	22	12.5	16.5	H16	470	0.15	5000	EEVEB2D220SQ	(4)	150
	33	16	16.5	J16	600	0.15	5000	EEVEB2D330SM	(4)	125
	47	18	16.5	K16	600	0.15	5000	EEVEB2D470SM	(4)	125
	68	16	21.5	J21	750	0.15	5000	EEVEB2D680M	(4)	75
	100	18	21.5	K21	1060	0.15	5000	EEVEB2D101M	(4)	75
250	10	10	16.5	G17	88	0.15	4000	EEVEB2E100Q	(4)	200
	22	16	16.5	J16	560	0.15	5000	EEVEB2E220SM	(4)	125
	33	18	16.5	K16	560	0.15	5000	EEVEB2E330SM	(4)	125
	47	16	21.5	J21	710	0.15	5000	EEVEB2E470M	(4)	75
	68	18	21.5	K21	990	0.15	5000	EEVEB2E680M	(4)	75
350	3.3	10	13.5	G13	38	0.20	3000	EEVEB2V3R3Q	(4)	250
	4.7	10	16.5	G17	50	0.20	4000	EEVEB2V4R7Q	(4)	200
	10	16	16.5	J16	270	0.20	5000	EEVEB2V100SM	(4)	125
	22	18	16.5	K16	350	0.20	5000	EEVEB2V220SM	(4)	125
	33	16	21.5	J21	480	0.20	5000	EEVEB2V330M	(4)	75
	47	18	21.5	K21	670	0.20	5000	EEVEB2V470M	(4)	75
400	3.3	10	13.5	G13	40	0.24	3000	EEVEB2G3R3Q	(4)	250
	4.7	10	16.5	G17	50	0.24	4000	EEVEB2G4R7Q	(4)	200
	10	16	16.5	J16	250	0.24	5000	EEVEB2G100SM	(4)	125
	22	16	21.5	J21	410	0.24	5000	EEVEB2G220M	(4)	75
	33	18	21.5	K21	600	0.24	5000	EEVEB2G330M	(4)	75
450	2.2	10	13.5	G13	29	0.24	3000	EEVEB2W2R2Q	(4)	250
	3.3	10	16.5	G17	41	0.24	4000	EEVEB2W3R3Q	(4)	200
	4.7	12.5	16.5	H16	49	0.24	5000	EEVEB2W4R7SQ	(4)	150
	10	18	16.5	K16	310	0.24	5000	EEVEB2W100SM	(4)	125
	22	18	21.5	K21	560	0.24	5000	EEVEB2W220M	(4)	75

· Please refer to the page of “Reflow Profile” and “The Taping Dimensions”.
· When requesting vibration-proof product, please put the last “V” instead to “Q or M”

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use.
Should a safety concern arise regarding this product, please be sure to contact us immediately.