

Radial Lead Type

Series: **EB** Type : **A**

Country of Origin

Japan
Malaysia
China



- **Features** Endurance:105°C 5000 to 10000 h
High Ripple High Frequency(High Voltage)

■ Specifications

Category temp. range	-40 to +105°C	-25 to +105°C
Rated W.V. Range	10 to 63 V .DC	160 to 450 V .DC
Nominal Cap. Range	0.47 to 3300 μ F	10 to 330 μ F
Capacitance Tolerance	±20 % (120Hz/+20°C)	
DC Leakage Current	$I \leq 0.01 CV$ or $3(\mu A)$ after 2 minutes application of rated working voltage at +20°C(Whichever, greater)	$I \leq 0.06 CV + 10(\mu A)$ application of rated working voltage at +20°C after 2 minutes
tan δ	Please see the attached standard products list	
Endurance	After following life 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), the capacitors shall meet the limits specified below. (10 to 63V.DC) Duration : 5000 hours (φ5×11 to 8×11.5), 7000hours (φ5×15 to φ6.3×15) 10000 hours (φ8×15 to 12.5×25) Post test requirement at +20 °C	
	Capacitance change	±30% of initial measured value
	tan δ	≤ 300 % of initial specified value
	DC leakage current	≤ initial specified value
	(160 to 450V.DC) Duration : 5000hours	
	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)	

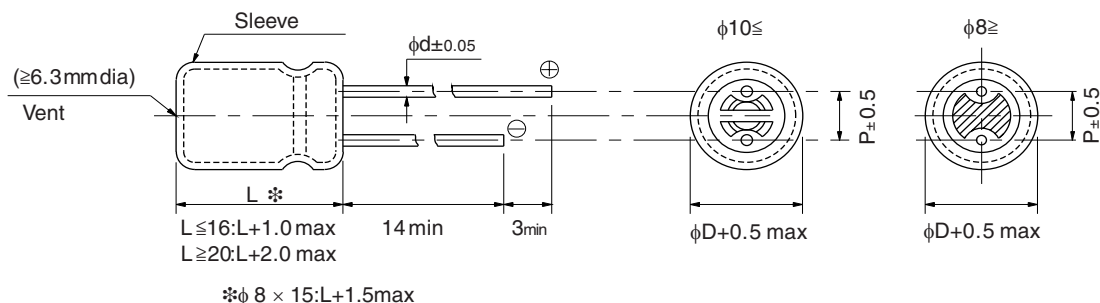
■ Frequency corection factor for ripple current (10 to 63 V. DC)

Capacitance (μF)	Frequency(Hz)				
	60	120	1k	10k	100k
0.47 to 10	0.75	1	1.40	1.55	1.65
22 to 470	0.85	1	1.20	1.25	1.30
1000 to 3300	0.95	1	1.05	1.10	1.15

(160 to 450 V. DC)

W.V.(V.DC)	Frequency(Hz)			
	120	1k	10k to 30k	30k to 100k
160 to 250	0.55	0.85	0.90	1.00
350 to 450	0.50	0.80	0.90	1.00

■ Dimensions in mm (not to scale)



Body Dia. φD	5	6.3	8	10	12.5	16	18
Lead Dia. φd	0.5	0.5	0.6	0.6	0.6	0.8	0.8
Lead space P	2.0	2.5	3.5	5.0	5.0	7.5	7.5

■ Standard Products(Low Voltage)

W.V. (V)	Cap. (±20%) (μF)	Case size		Specification			Lead Length				Part No.	Min. Packaging Q'ty	
		Dia.	Length	Ripple current (120Hz) (+105°C) (mA)	tan δ (120Hz) (+20°C)	Endurance (mm)	Lead Dia.	Lead Space				Straight Leads	Taping
								Straight	Taping *B (mm)	Taping *H			
		(mm)	(mm)				(mm)					(pcs)	(pcs)
10	100	5	15	105	0.30	7000	0.5	2.0	5.0	2.5	EEUEB1A101()	200	2000
		5	11	66	0.30	5000	0.5	2.0	5.0	2.5	EEUEB1A101S()	200	2000
	220	6.3	15	152	0.30	7000	0.5	2.5	5.0	2.5	EEUEB1A221()	200	2000
		6.3	11.2	100	0.30	5000	0.5	2.5	5.0	2.5	EEUEB1A221S()	200	2000
	470	8	15	278	0.30	10000	0.6	3.5	5.0		EEUEB1A471()	200	1000
		8	11.5	180	0.30	5000	0.6	3.5	5.0		EEUEB1A471S()	200	1000
	2200	12.5	20	540	0.32	10000	0.6	5.0	5.0		EEUEB1A222()	200	500
	3300	12.5	25	802	0.34	10000	0.6	5.0	5.0		EEUEB1A332()	200	500
16	1000	10	20	430	0.25	10000	0.6	5.0	5.0		EEUEB1C102()	200	500
	2200	12.5	25	706	0.27	10000	0.6	5.0	5.0		EEUEB1C222()	200	500
25	47	5	15	78	0.22	7000	0.5	2.0	5.0	2.5	EEUEB1E470()	200	2000
		5	11	55	0.22	5000	0.5	2.0	5.0	2.5	EEUEB1E470S()	200	2000
	100	6.3	15	135	0.22	7000	0.5	2.5	5.0	2.5	EEUEB1E101()	200	2000
		6.3	11.2	95	0.22	5000	0.5	2.5	5.0	2.5	EEUEB1E101S()	200	2000
	220	8	11.5	125	0.22	5000	0.6	3.5	5.0		EEUEB1E221S()	200	1000
	330	8	15	255	0.22	10000	0.6	3.5	5.0		EEUEB1E331()	200	1000
	470	10	16	321	0.22	10000	0.6	5.0	5.0		EEUEB1E471()	200	500
	1000	12.5	20	498	0.22	10000	0.6	5.0	5.0		EEUEB1E102()	200	500
35	33	5	15	66	0.18	7000	0.5	2.0	5.0	2.5	EEUEB1V330()	200	2000
		5	11	46	0.18	5000	0.5	2.0	5.0	2.5	EEUEB1V330S()	200	2000
	220	8	15	197	0.18	10000	0.6	3.5	5.0		EEUEB1V221()	200	1000
	330	10	16	278	0.18	10000	0.6	5.0	5.0		EEUEB1V331()	200	500
	470	10	20	349	0.18	10000	0.6	5.0	5.0		EEUEB1V471()	200	500
	1000	12.5	25	586	0.18	10000	0.6	5.0	5.0		EEUEB1V102()	200	500
50	0.47	5	11	4	0.15	5000	0.5	2.0	5.0	2.5	EEUEB1HR47S()	200	2000
	1	5	11	8	0.15	5000	0.5	2.0	5.0	2.5	EEUEB1H1R0S()	200	2000
	2.2	5	11	15	0.15	5000	0.5	2.0	5.0	2.5	EEUEB1H2R2S()	200	2000
	3.3	5	11	18	0.15	5000	0.5	2.0	5.0	2.5	EEUEB1H3R3S()	200	2000
	4.7	5	11	18	0.15	5000	0.5	2.0	5.0	2.5	EEUEB1H4R7S()	200	2000
	10	5	11	27	0.15	5000	0.5	2.0	5.0	2.5	EEUEB1H100S()	200	2000
	22	5	15	55	0.15	7000	0.5	2.0	5.0	2.5	EEUEB1H220()	200	2000
		5	11	39	0.15	5000	0.5	2.0	5.0	2.5	EEUEB1H220S()	200	2000
	47	6.3	15	87	0.15	7000	0.5	2.5	5.0	2.5	EEUEB1H470()	200	2000
		6.3	11.2	61	0.15	5000	0.5	2.5	5.0	2.5	EEUEB1H470S()	200	2000
	100	8	11.5	99	0.15	5000	0.6	3.5	5.0		EEUEB1H101S()	200	1000
	220	10	16	234	0.15	10000	0.6	5.0	5.0		EEUEB1H221()	200	500
	330	10	20	293	0.15	10000	0.6	5.0	5.0		EEUEB1H331()	200	500
	470	12.5	20	370	0.15	10000	0.6	5.0	5.0		EEUEB1H471()	200	500
63	0.47	5	15	6	0.12	7000	0.5	2.0	5.0	2.5	EEUEB1JR47()	200	2000
		5	11	4.5	0.12	5000	0.5	2.0	5.0	2.5	EEUEB1JR47S()	200	2000
	1	5	15	12	0.12	7000	0.5	2.0	5.0	2.5	EEUEB1J1R0()	200	2000
		5	11	9	0.12	5000	0.5	2.0	5.0	2.5	EEUEB1J1R0S()	200	2000

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■ Standard Products(Low Voltage)

W.V. (V)	Cap. (±20%) (μF)	Case size		Specification			Lead Length				Part No.	Min. Packaging Q'ty	
		Dia.	Length	Ripple current (120Hz) (+105°C) (mA)	tan δ (120Hz) (+20°C)	Endur- ance (mm)	Lead Dia. (mm)	Lead Space				Straight Leads (pcs)	Taping (pcs)
								Straight	Taping *B (mm)	Taping *H (mm)			
63	2.2	5	15	22	0.12	7000	0.5	2.0	5.0	2.5	EEUEB1J2R2()	200	2000
		5	11	16.5	0.12	5000	0.5	2.0	5.0	2.5	EEUEB1J2R2S()	200	2000
	3.3	5	15	30	0.12	7000	0.5	2.0	5.0	2.5	EEUEB1J3R3()	200	2000
		5	11	20	0.12	5000	0.5	2.0	5.0	2.5	EEUEB1J3R3S()	200	2000
	4.7	5	15	30	0.12	7000	0.5	2.0	5.0	2.5	EEUEB1J4R7()	200	2000
		5	11	23	0.12	5000	0.5	2.0	5.0	2.5	EEUEB1J4R7S()	200	2000
	10	5	15	46	0.12	7000	0.5	2.0	5.0	2.5	EEUEB1J100()	200	2000
		5	11	30	0.12	5000	0.5	2.0	5.0	2.5	EEUEB1J100S()	200	2000
	22	6.3	15	55	0.12	7000	0.5	2.5	5.0	2.5	EEUEB1J220()	200	2000
	33	6.3	15	71	0.12	7000	0.5	2.5	5.0	2.5	EEUEB1J330()	200	2000
		6.3	11.2	50	0.12	5000	0.5	2.5	5.0	2.5	EEUEB1J330S()	200	2000
	47	8	15	94	0.12	10000	0.6	3.5	5.0		EEUEB1J470()	200	1000
		8	11.5	80	0.12	5000	0.6	3.5	5.0		EEUEB1J470S()	200	1000
	100	8	15	180	0.12	10000	0.6	3.5	5.0		EEUEB1J101()	200	1000
	220	10	20	292	0.12	10000	0.6	5.0	5.0		EEUEB1J221()	200	500
	330	12.5	20	381	0.12	10000	0.6	5.0	5.0		EEUEB1J331()	200	500
	470	12.5	25	454	0.12	10000	0.6	5.0	5.0		EEUEB1J471()	200	500

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■ Standard Products

W.V. (V)	Cap. (±20%) (μF)	Case size		Specification		Lead Length			Part No.	Min. Packaging Q'ty	
		Dia.	Length	Ripple current (100kHz) (+105°C) (mA)	tan δ (120Hz) (+20°C)	Lead Dia.	Lead Space			Straight Leads	Taping
							Straight	Taping *B			
		(mm)	(mm)			(mm)	(mm)	(mm)		(pcs)	(pcs)
160	22	10	20	470	0.15	0.6	5.0	5.0	EEUEB2C220()	200	500
	33	10	20	470	0.15	0.6	5.0	5.0	EEUEB2C330()	200	500
	47	12.5	20	600	0.15	0.6	5.0	5.0	EEUEB2C470()	200	500
	68	12.5	25	750	0.15	0.6	5.0	5.0	EEUEB2C680()	200	500
		16	20	750	0.15	0.8	7.5	7.5	EEUEB2C680S()	100	250
	100	16	25	1060	0.15	0.8	7.5	7.5	EEUEB2C101()	100	250
		18	20	1060	0.15	0.8	7.5	7.5	EEUEB2C101S()	100	250
	150	16	31.5	1280	0.15	0.8	7.5		EEUEB2C151	100	
		18	25	1280	0.15	0.8	7.5	7.5	EEUEB2C151S()	100	250
	220	16	31.5	1280	0.15	0.8	7.5		EEUEB2C221	100	
		18	25	1280	0.15	0.8	7.5	7.5	EEUEB2C221S()	100	250
330	18	31.5	1690	0.15	0.8	7.5		EEUEB2C331	50		
200	22	10	20	470	0.15	0.6	5.0	5.0	EEUEB2D220()	200	500
	33	12.5	20	600	0.15	0.6	5.0	5.0	EEUEB2D330()	200	500
	47	12.5	20	600	0.15	0.6	5.0	5.0	EEUEB2D470()	200	500
	68	12.5	25	750	0.15	0.6	5.0	5.0	EEUEB2D680()	200	500
		16	20	750	0.15	0.8	7.5	7.5	EEUEB2D680S()	100	250
	100	16	25	1060	0.15	0.8	7.5	7.5	EEUEB2D101()	100	250
		18	20	1060	0.15	0.8	7.5	7.5	EEUEB2D101S()	100	250
	150	16	31.5	1280	0.15	0.8	7.5		EEUEB2D151	100	
		18	25	1280	0.15	0.8	7.5	7.5	EEUEB2D151S()	100	250
	220	18	31.5	1690	0.15	0.8	7.5		EEUEB2D221	100	
250	22	12.5	20	560	0.15	0.6	5.0	5.0	EEUEB2E220()	200	500
	33	12.5	20	560	0.15	0.6	5.0	5.0	EEUEB2E330()	200	500
	47	12.5	25	710	0.15	0.6	5.0	5.0	EEUEB2E470()	200	500
		16.0	20	710	0.15	0.8	7.5	7.5	EEUEB2E470S()	100	250
	68	16	25	990	0.15	0.8	7.5	7.5	EEUEB2E680()	100	250
		18	20	990	0.15	0.8	7.5	7.5	EEUEB2E680S()	100	250
	100	16	31.5	1200	0.15	0.8	7.5		EEUEB2E101	100	
		18	25	1200	0.15	0.8	7.5	7.5	EEUEB2E101S()	100	250
	150	18	31.5	1470	0.15	0.8	7.5		EEUEB2E151	50	
350	10	10	20	270	0.20	0.6	5.0	5.0	EEUEB2V100()	200	500
	22	12.5	20	350	0.20	0.6	5.0	5.0	EEUEB2V220()	200	500
	33	16	20	480	0.20	0.8	7.5	7.5	EEUEB2V330S()	100	250
	47	16	25	640	0.20	0.8	7.5	7.5	EEUEB2V470()	100	250
		18	20	640	0.20	0.8	7.5	7.5	EEUEB2V470S()	100	250
	68	16	31.5	780	0.20	0.8	7.5		EEUEB2V680	100	
		18	25	780	0.20	0.8	7.5	7.5	EEUEB2V680S()	100	250
	100	18	31.5	970	0.20	0.8	7.5		EEUEB2V101	50	
400	10	10	20	250	0.24	0.6	5.0	5.0	EEUEB2G100()	200	500
	22	12.5	25	410	0.24	0.6	5.0	5.0	EEUEB2G220()	200	500
		16	20	410	0.24	0.8	7.5	7.5	EEUEB2G220S()	100	250

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Endurance : 105°C 5000 h

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■ Standard Products

W.V.	Cap. (±20%)	Case size		Specification		Lead Length			Part No.	Min. Packaging Q'ty	
		Dia.	Length	Ripple current (100kHz) (+105°C) (mA)	tan δ (120Hz) (+20°C)	Lead Dia.	Lead Space Straight	Taping *B		Straight Leads	Taping
(V)	(μF)	(mm)	(mm)			(mm)	(mm)	(mm)		(pcs)	(pcs)
400	33	16	25	600	0.24	0.8	7.5	7.5	EEUEB2G330()	100	250
		18	20	600	0.24	0.8	7.5	7.5	EEUEB2G330S()	100	250
	47	16	31.5	730	0.24	0.8	7.5		EEUEB2G470	100	
		18	25	730	0.24	0.8	7.5	7.5	EEUEB2G470S()	100	250
450	10	12.5	20	310	0.24	0.6	5.0	5.0	EEUEB2W100()	200	500
	22	16	25	560	0.24	0.8	7.5	7.5	EEUEB2W220()	100	250
		18	20	560	0.24	0.8	7.5	7.5	EEUEB2W220S()	100	250
	33	16	31.5	680	0.24	0.8	7.5		EEUEB2W330	100	
		18	25	680	0.24	0.8	7.5	7.5	EEUEB2W330S()	100	250
	47	18	31.5	850	0.24	0.8	7.5		EEUEB2W470	50	

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