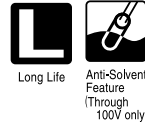


BX High Temperature Range, For +150°C Use
series

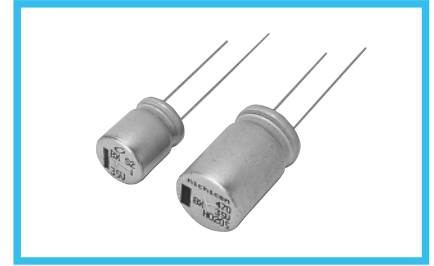


- Laminated case series.
- Suited for automobile electronics where heavy duty services are indispensable.
- Compliant to the RoHS directive (2011/65/EU).

BX



BW

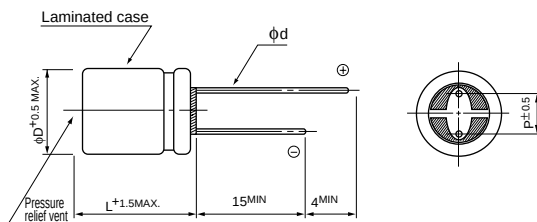


Item	Performance Characteristics																			
Category Temperature Range	-55 to +150°C (10 to 100V), -40 to +150°C (160 · 200V), -25 to +150°C (350 · 400V)																			
Rated Voltage Range	10 to 400V																			
Rated Capacitance Range	1 to 4700μF																			
Capacitance Tolerance	±20% at 120Hz, 20°C																			
Leakage Current	Rated Voltage (V)	10 to 100								160 to 400										
	Leakage current	After 1 minute's application of rated voltage, leakage current is not more than 0.03CV or 4 (μA), whichever is greater.								CV ≤ 1000 : I = 0.1CV+40 (μA) max. (1 minute's) CV > 1000 : I = 0.04CV+100 (μA) max. (1 minute's)										
Tangent of loss angle (tan δ)	120Hz 20°C																			
	Rated voltage (V)	10	16	25	35	50	63	80	100	160·200	350·400									
	tan δ (MAX.)	0.20	0.16	0.14	0.12	0.10	0.10	0.08	0.08	0.20	0.24									
For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF.																				
Stability at Low Temperature	120Hz																			
	Rated voltage (V)				10	16	25	35	50	63	80	100	160·200	350·400						
	Impedance ratio	Z-25°C / Z+20°C				3	2	2	2	2	2	2	3	6						
ZT / Z20 (MAX.)												4	4	4	4	4	4	4	6	-
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after D.C. bias plus rated ripple current is applied for 2000 hours (1000 hours for φD=10 and 12.5) at 150°C, the peak voltage shall not exceed the rated voltage.																			
	Capacitance change				Within ±30% of the initial capacitance value (10 to 100V) Within ±20% of the initial capacitance value (160 to 400V)															
	Dissipation Factor				300% or less than the initial specified value (10 to 100V) 200% or less than the initial specified value(160 to 400V)															
Leakage current												Less than or equal to the initial specified value								
Marking	Black print on the case top.																			

Radial Lead Type

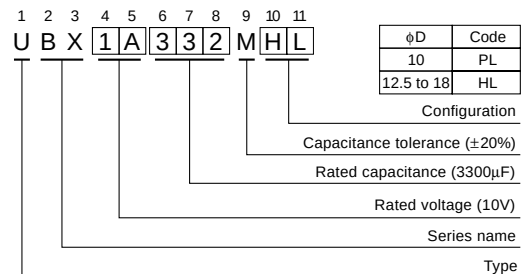
Type numbering system (Example : 10V 3300μF)

Rated Capacitance
Trade mark
Rated Voltage
Series
Lot No.



(mm)

φD	10	12.5	16	18
P	5.0	5.0	7.5	7.5
φd	0.6	0.6	0.8	0.8



- Please refer to page 20 about the end seal configuration.

Please refer to page 20, 21, 22 about the formed or taped product spec.
Please refer to page 4 for the minimum order quantity.

● Dimension table in next page.

■ Dimensions

Cap. (μ F)	V (Code)		10		16		25		35	
	Code		1A		1C		1E		1V	
1	010								10 × 12.5	35
2.2	2R2								10 × 12.5	50
3.3	3R3								10 × 12.5	60
4.7	4R7								10 × 12.5	85
10	100								10 × 12.5	175
22	220								10 × 12.5	200
33	330								10 × 12.5	225
47	470								10 × 12.5	250
100	101						10 × 12.5	250	10 × 20	400
220	221				10 × 16	300	12.5 × 20	500	12.5 × 25	600
330	331	10 × 16	300	10 × 20	400		12.5 × 25	600	16 × 25	800
470	471	10 × 20	400	12.5 × 20	600		16 × 25	800	16 × 31.5	1000
1000	102	12.5 × 25	600	16 × 25	800		16 × 31.5	1000	18 × 40	1300
2200	222	16 × 31.5	1000	18 × 35.5	1200					
3300	332	18 × 35.5	1200	18 × 40	1300				Case size ϕ D × L (mm)	Rated ripple
4700	472	18 × 40	1300							

Cap. (μ F)	V (Code)		50		63		80		100	
	Code		1H		1J		1K		2A	
22	220								10 × 12.5	390
33	330						10 × 12.5	420	10 × 16	510
47	470						10 × 16	550	10 × 20	640
56	560				10 × 12.5	430	10 × 20	690	10 × 20	640
68	680				10 × 16	560	10 × 20	690	12.5 × 20	760
100	101	10 × 12.5	380	10 × 20	710		12.5 × 20	820	12.5 × 25	950
220	221	10 × 20	640	12.5 × 25	1040		16 × 25	1250	16 × 31.5	1380
330	331	12.5 × 20	770	12.5 × 31.5	1170		16 × 31.5	1480	18 × 31.5	1430
470	471	12.5 × 25	960	16 × 25	1280		18 × 31.5	1530		
560	561	12.5 × 31.5	1080	16 × 31.5	1520					
680	681	16 × 25	1190	16 × 35.5	1520				Case size ϕ D × L (mm)	Rated ripple
1000	102	16 × 31.5	1420							

● Frequency coefficient of rated ripple current

Rated ripple current (mA_{rms}) at 150°C 100kHz

V	CV	Frequency	120Hz	300Hz	1kHz	10kHz or more
10 to 100		1000 > CV	0.50	0.64	0.83	1.00
		1000 ≤ CV	0.67	0.79	0.91	1.00

Cap. (μ F)	V (Code)		160		200		350		400	
	Code		2C		2D		2V		2G	
4.7	4R7						10 × 16	77	10 × 20	83
6.8	6R8				10 × 12.5	83	10 × 20	110	12.5 × 20	88
10	100	10 × 12.5	110	10 × 12.5	83		12.5 × 20	120	12.5 × 25	105
15	150	10 × 12.5	110	10 × 16	130		12.5 × 25	130	12.5 × 25	105
22	220	10 × 16	160	10 × 20	170					
33	330	12.5 × 20	230	12.5 × 20	210					
47	470	12.5 × 20	250	12.5 × 25	250					
56	560	12.5 × 25	270	16 × 20	270					
68	680	16 × 20	290	16 × 25	290				Case size ϕ D × L (mm)	Rated ripple
100	101	16 × 25	300							

Rated ripple current (mA_{rms}) at 150°C 120Hz

● Frequency coefficient of rated ripple current

V	Cap. (μ F)	Frequency	50Hz	120Hz	300Hz	1kHz	10kHz	100kHz or more
160 to 400		4.7 to 33	0.75	1.00	1.25	1.50	1.75	1.80
		47 to 100	0.80	1.00	1.15	1.30	1.40	1.50